

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

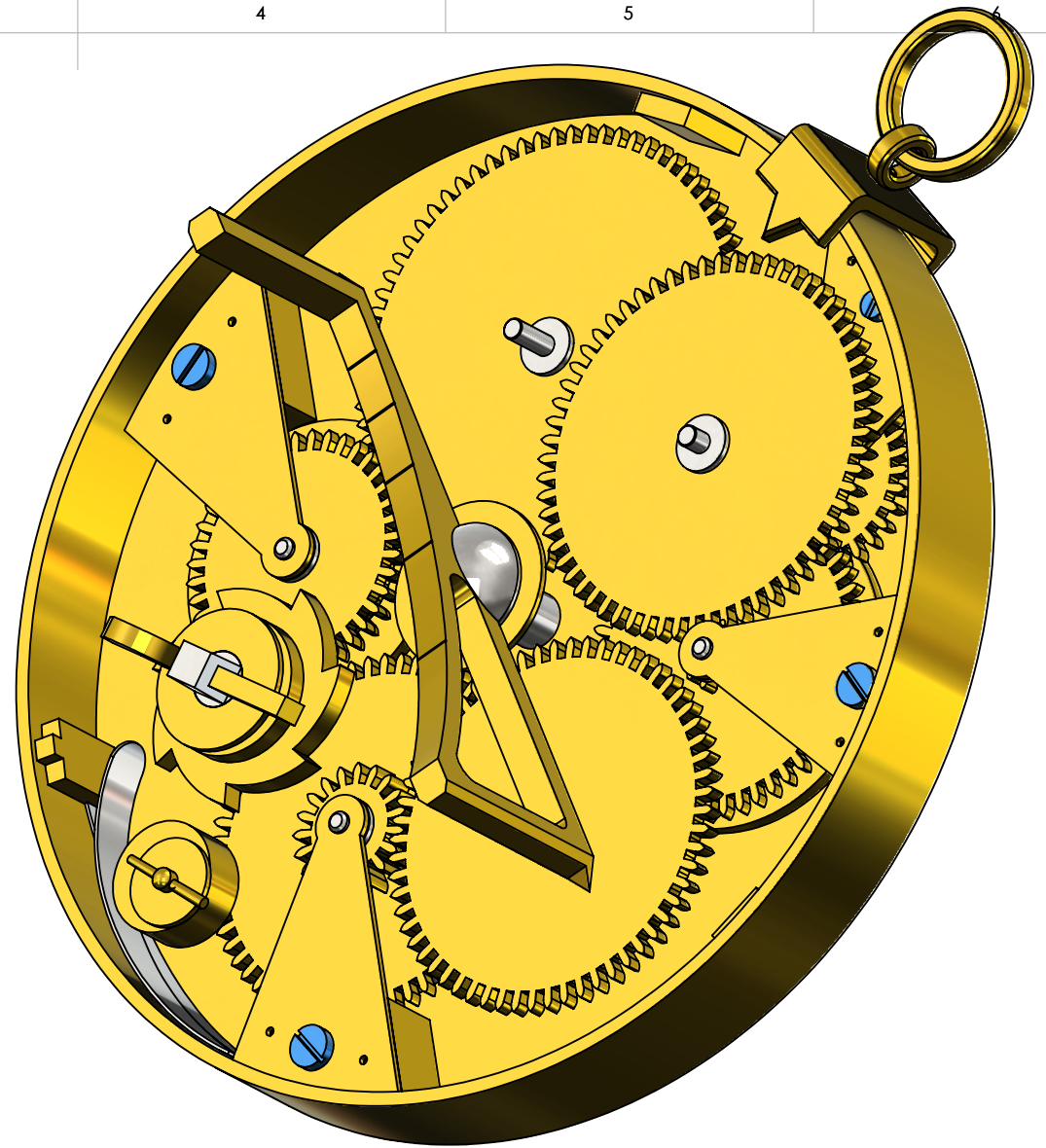
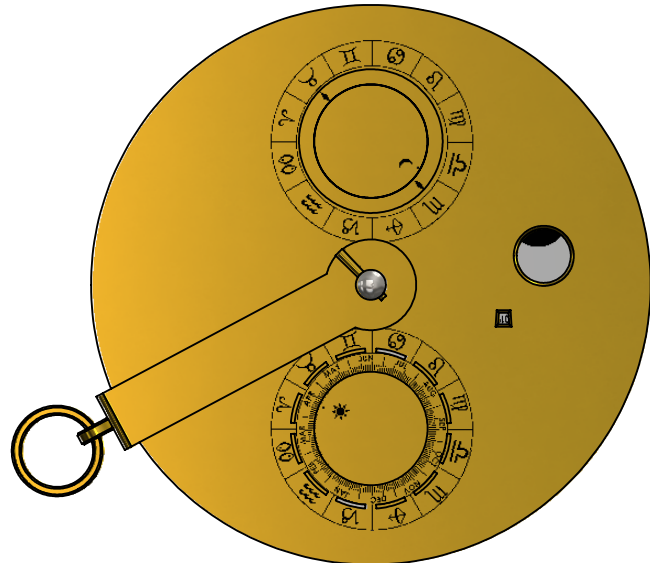
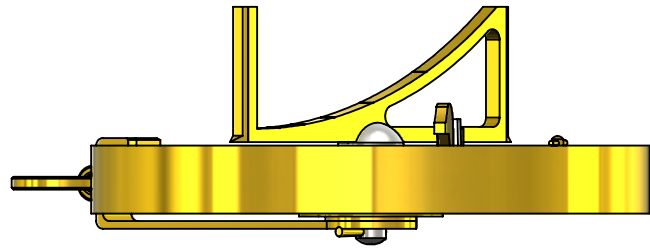
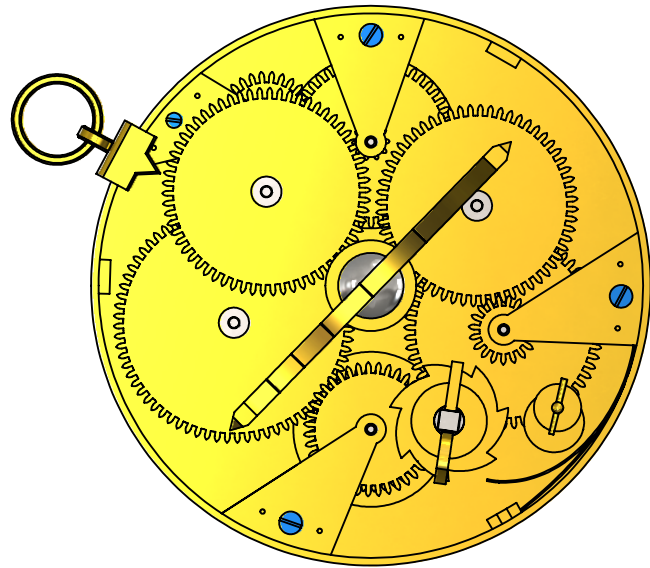
MATERIAL: BRASS, MILD STEEL, EN8 STEEL

TITLE:

## BYZANTINE SUNDIAL- CALENDAR

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A4



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ANGULAR:  $\pm 0.5^\circ$

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0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL, EN8 STEEL

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TITLE:

# BYZANTINE SUNDIAL- CALENDAR

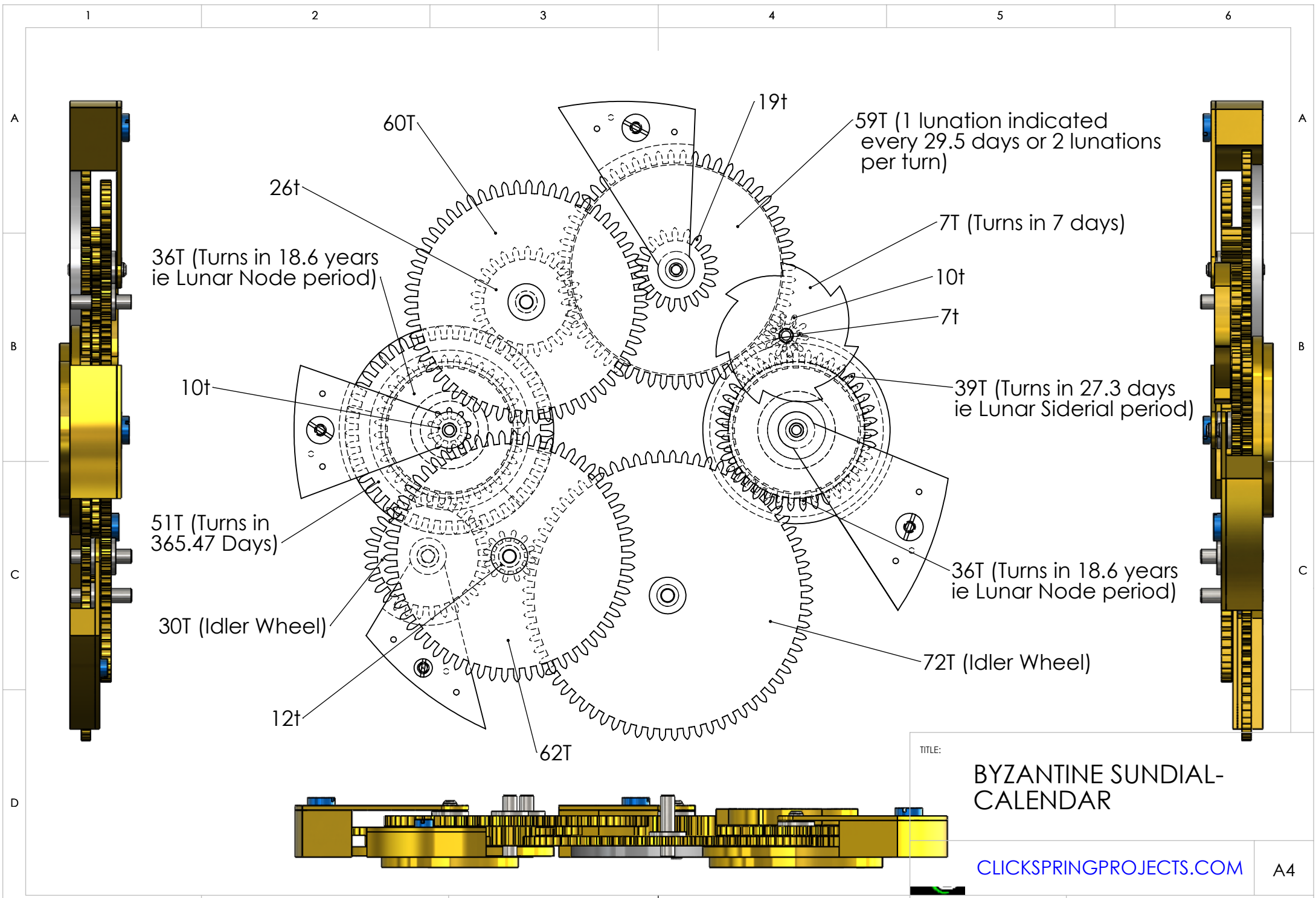


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SCALE:

SHEET 2 OF 94



60T

26t

36T (Turns in 18.6 years  
ie Lunar Node period)

10t

51T (Turns in  
365.47 Days)

30T (Idler Wheel)

12t

62T

19t

59T (1 lunation indicated  
every 29.5 days or 2 lunations  
per turn)

7T (Turns in 7 days)

10t

7t

39T (Turns in 27.3 days  
ie Lunar Siderial period)

36T (Turns in 18.6 years  
ie Lunar Node period)

72T (Idler Wheel)

TITLE:

BYZANTINE SUNDIAL-  
CALENDAR

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## PROJECT MATERIALS LIST

Use nearest Imperial equivalent as appropriate

- (Refer accompanying layout templates for sheet stock)
- 1.0mm Brass Sheet - 110.0mm x 100.0mm (support plates)
- 2.0mm Brass Sheet - 210.0mm x 230.0mm (wheel blanks, rear dial plate)
- 2.5mm Brass Sheet - 155.0mm x 130.0mm (wheel blanks)
- 3.0mm Brass Sheet - 170.0mm x 170.0mm (front dial plate)
- 5.0mm Brass Sheet - 160.0mm x 100.0mm (wheel blanks, gnomon, cotter pin)
- 5.0mm Brass Sheet - 20.0mm x 470.0mm (front dial bowl rim)
- 30.0mm x 12.0mm Brass Flat Bar - 190mm (support risers)
- 35.0mm Brass Rod - 30.0mm (Node display discs, Node Display Wheel)
- 25.0mm Brass Rod - 20.0mm (Spacers)
- 19.0mm Brass Rod - 70.0mm (19t pinion, Cam, etc)
- 13.0mm Brass Rod - 140.0mm (12t, 10t, 7t pinions etc)
- 3.0mm Brass Rod - 40.0mm (Assorted Pins)
- 10.0mm Mild Steel Rod - 190.0mm (Wheel arbors)
- 20.0mm Mild Steel Rod - 60.0mm (Center pin)
- 7.0mm Medium Carbon Steel (EN8) - 100.00mm (Screw fasteners)
- 75.0mm x 10.0mm x 0.5mm Spring Steel (Ratchet Spring)
- Soft Solder/Flux or Loctite 603 as preferred
- Silver Solder/Flux
- 500mL Ferric Chloride (Dial etching)
- Shellac Dial Wax (Dial filling)
- Silvering Powder/Finishing Powder
- Brass Blacking Fluid

## REQUIRED GEAR CUTTERS

See Episode 2 for shop made cutter instructions, or purchase from PP Thornton as follows:

- **Wheel: M0.85**
- **7 leaf Pinion: M0.85**
- **10 leaf Pinion: M0.85**
- **12 leaf Pinion: M 0.85**

## OPTIONAL

If choosing to cast the front dial bowl (refer Episode 6):

170.0mm x 170.0mm x 25.0mm HDPE Sheet

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LINEAR: DIMENSIONS UNDER 15 MM  $\pm$  0.1  
DIMENSIONS 15 MM AND OVER  $\pm$  1  
ANGULAR:  $\pm$ 0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL:

TITLE:



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1	2	3	4	5	6
ITEM NO.	PART NUMBER	QTY.			
1	Ratchet Assembly	1			
2	Lunar Phase Display Assembly	1			
3	Node Display Assembly Lunar	1			
4	Node Display Assembly Solar	1			
5	Solar Zodiac Display Assembly	1			
6	Lunar Zodiac Display Assembly	1			
7	Solar Intermediate Wheel Assembly	1			
8	Eclipse Intermediate Wheel Assembly	1			
9	Eclipse Idler Wheel Small Assembly	1			
10	Eclipse Idler Wheel Assembly	1			
11	Rear Dial Plate	1			
12	Front Dial Bowl	1			
13	Lunar Display Support Assembly	1			
14	Moon Wheel Support Assembly	1			
15	Solar Display Support Assembly	1			
16	Eclipse Idler Wheel Support Assembly	1			
17	Ratchet Spring	1			
18	Spring Deselect Assembly	1			
19	Dial Plate Support With Key	1			
20	Dial Plate Support	2			
21	Gnomon Assembly	1			
22	Suspension Arm Assembly	1			
23	Suspension Arm Washer	2			

A

A

B

B

C

C

D

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

TITLE:

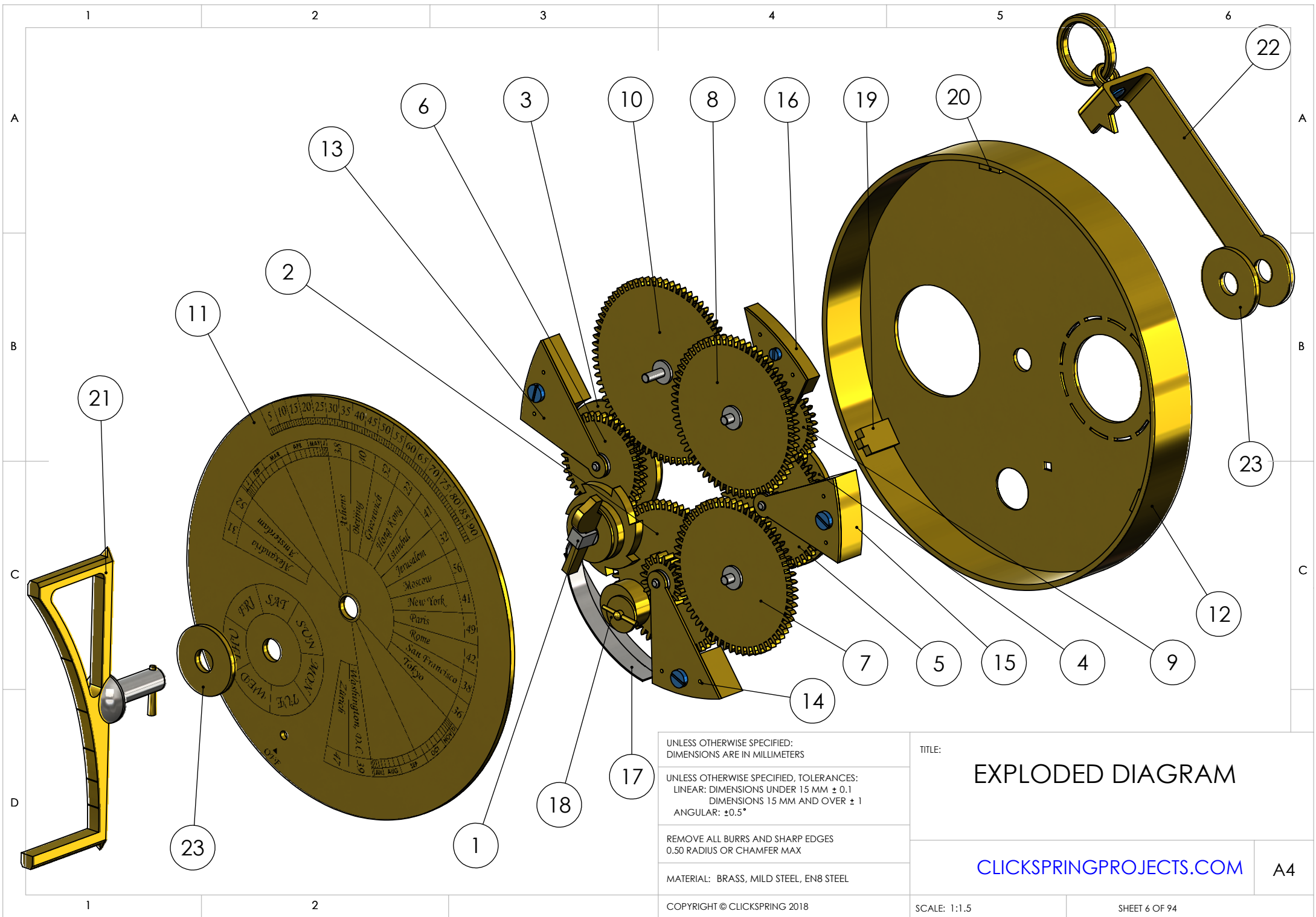
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL:


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UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL, EN8 STEEL

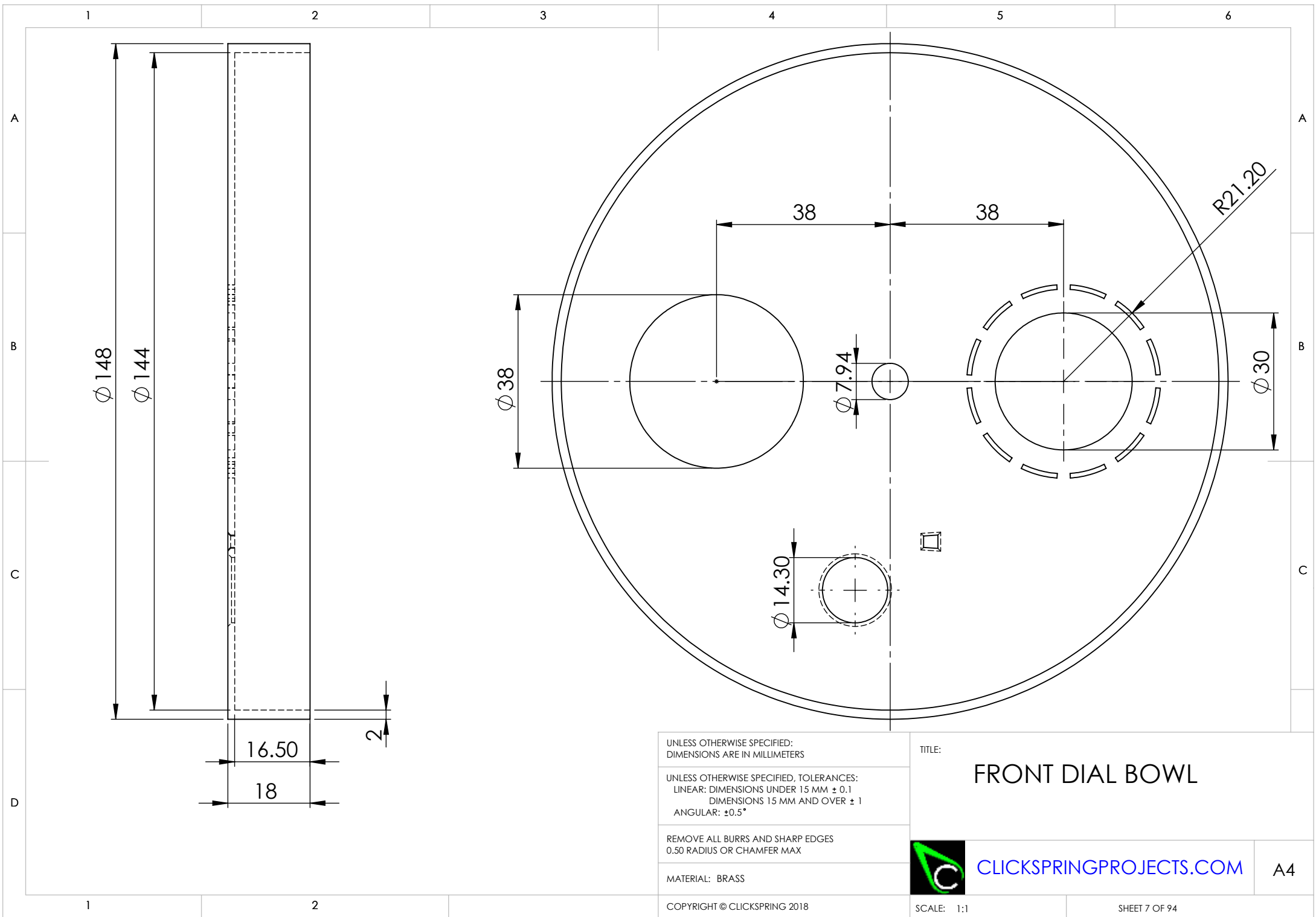
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TITLE:  
**EXPLODED DIAGRAM**

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SCALE: 1:1.5

SHEET 6 OF 94



UNLESS OTHERWISE SPECIFIED:  
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LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ± 0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

# FRONT DIAL BOWL

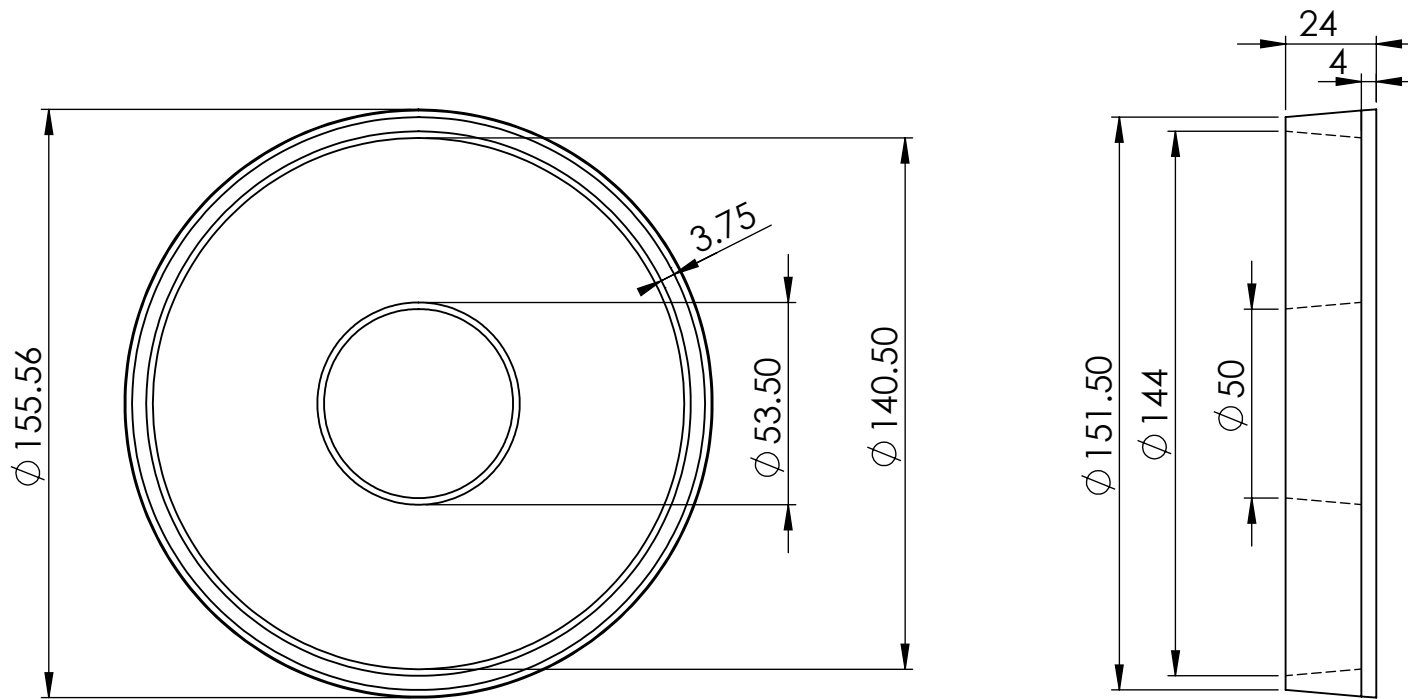


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SCALE: 1:1

SHEET 7 OF 94



NOTES UNLESS OTHERWISE SPECIFIED:

- PATTERN DRAFT ANGLE: 5°
- MACHINE FROM 25MM HDPE STOCK

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

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DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PE HIGH DENSITY

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TITLE:

FRONT DIAL BOWL  
PATTERN



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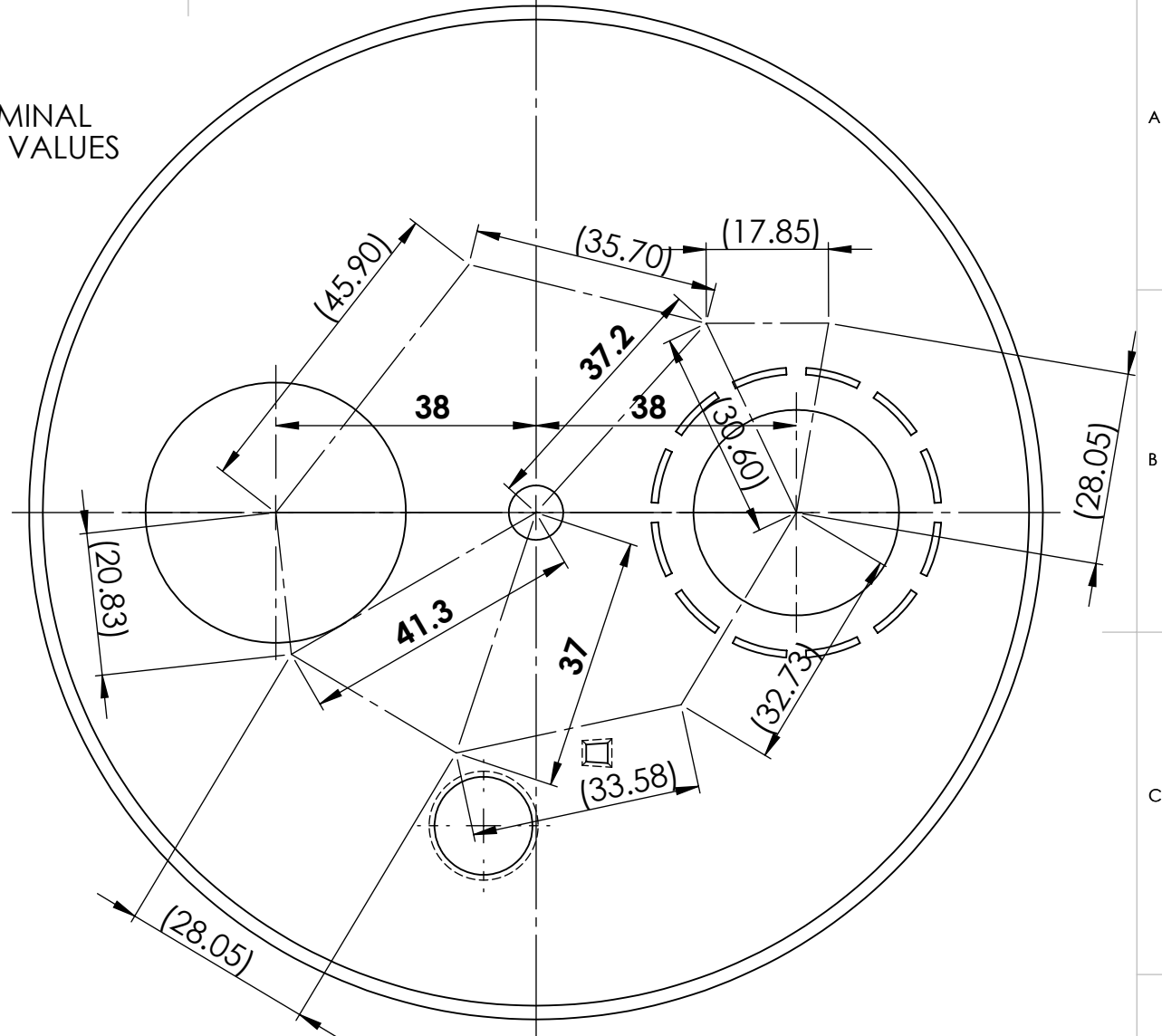
SCALE: 1:2

SHEET 8 OF 94



NOTES UNLESS OTHERWISE SPECIFIED:

- CENTER DISTANCES IN PARENTHESIS ARE NOMINAL
- USE DEPTHING TOOL TO DETERMINE ACTUAL VALUES
- REFER EPISODE 7



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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:

FRONT DIAL BOWL

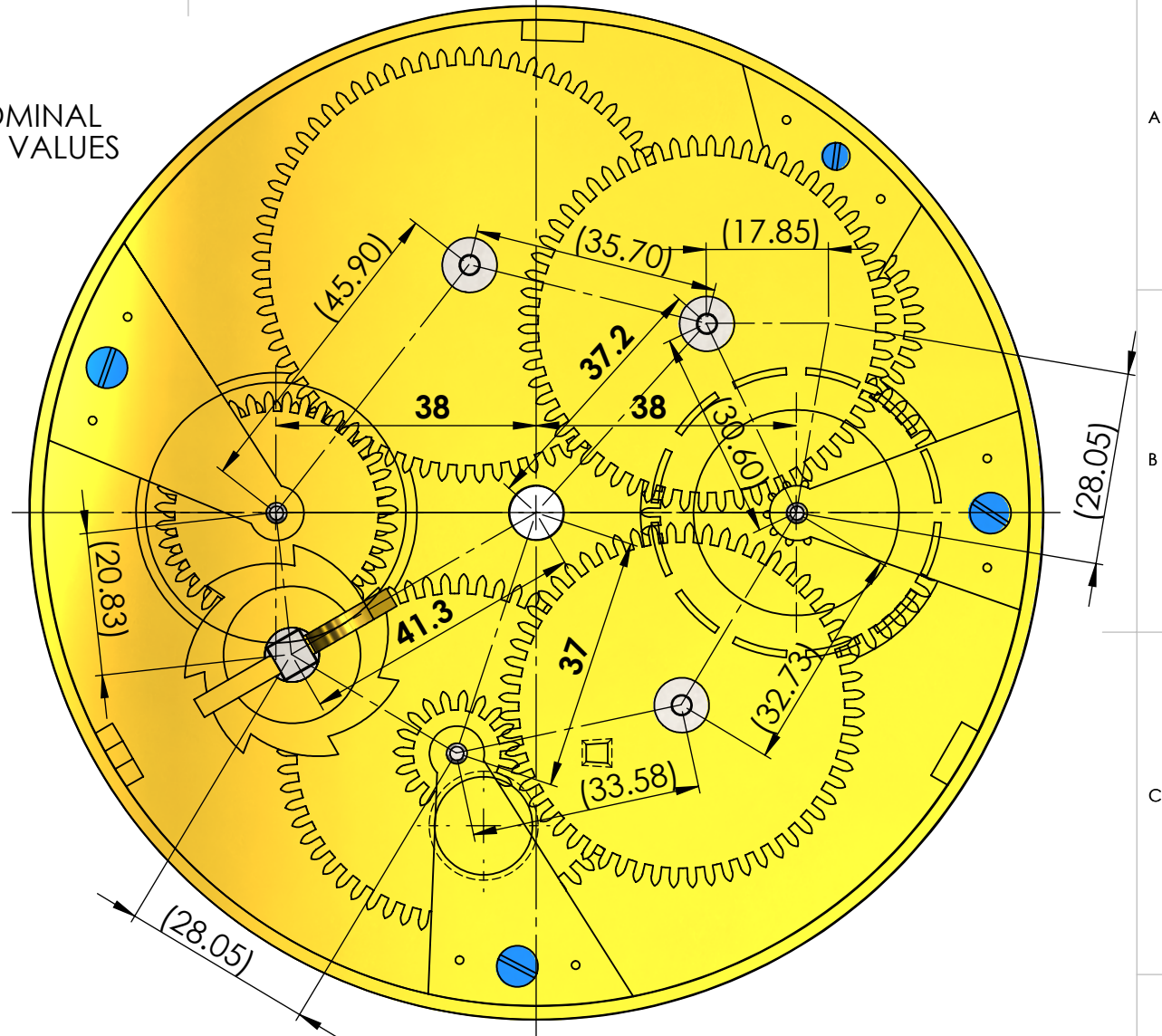


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ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
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MATERIAL: BRASS

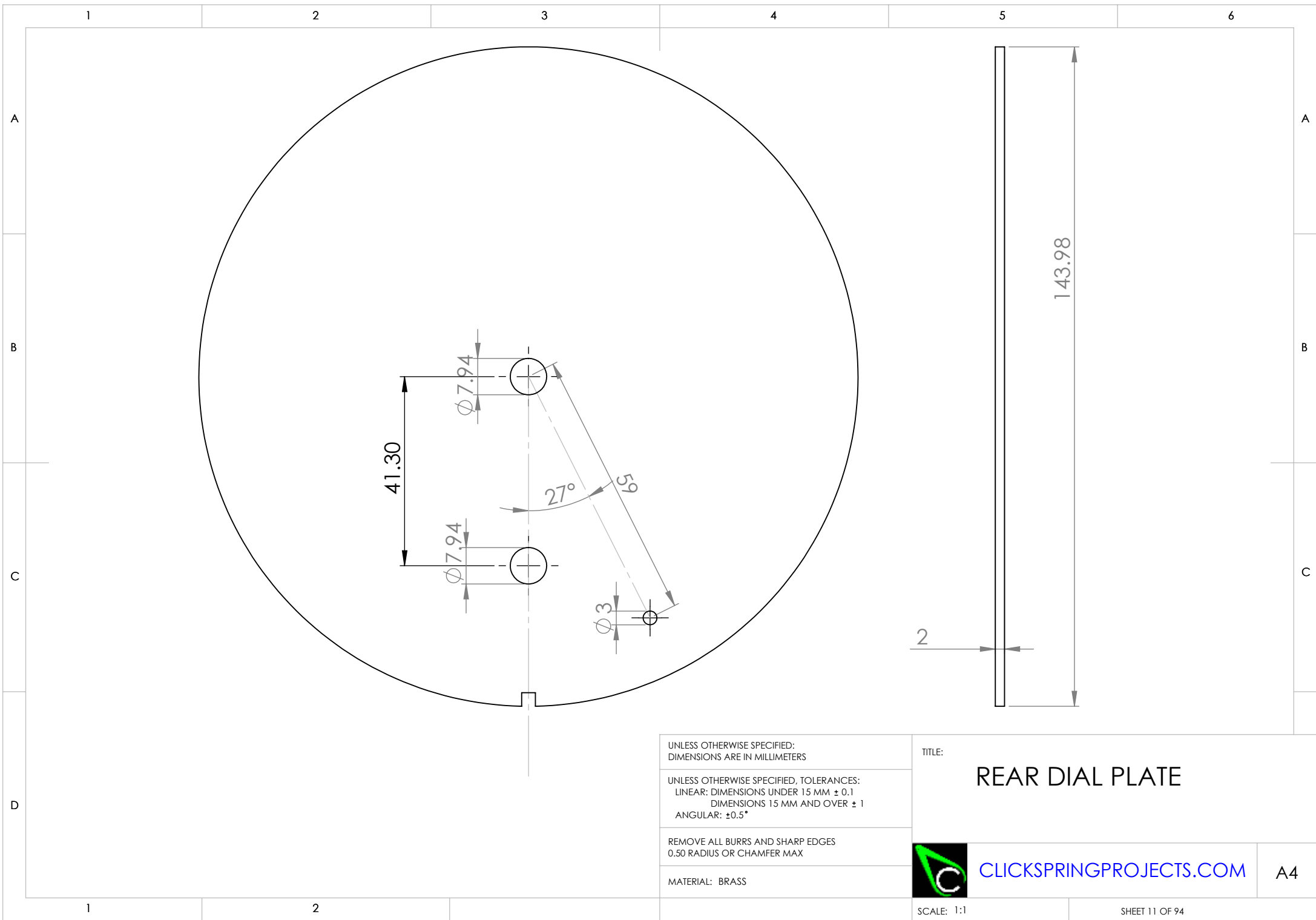
TITLE:

FRONT DIAL BOWL



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DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

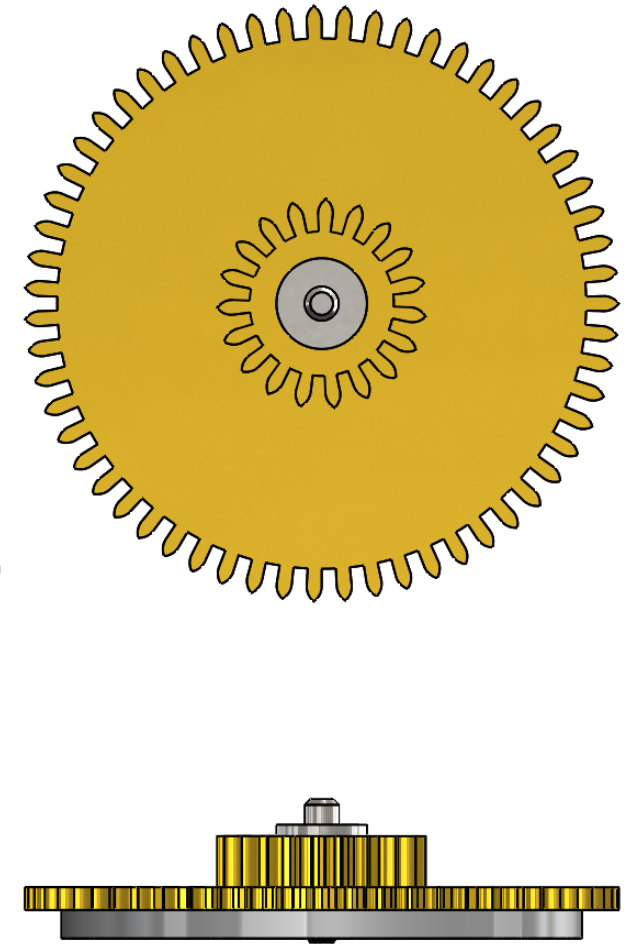
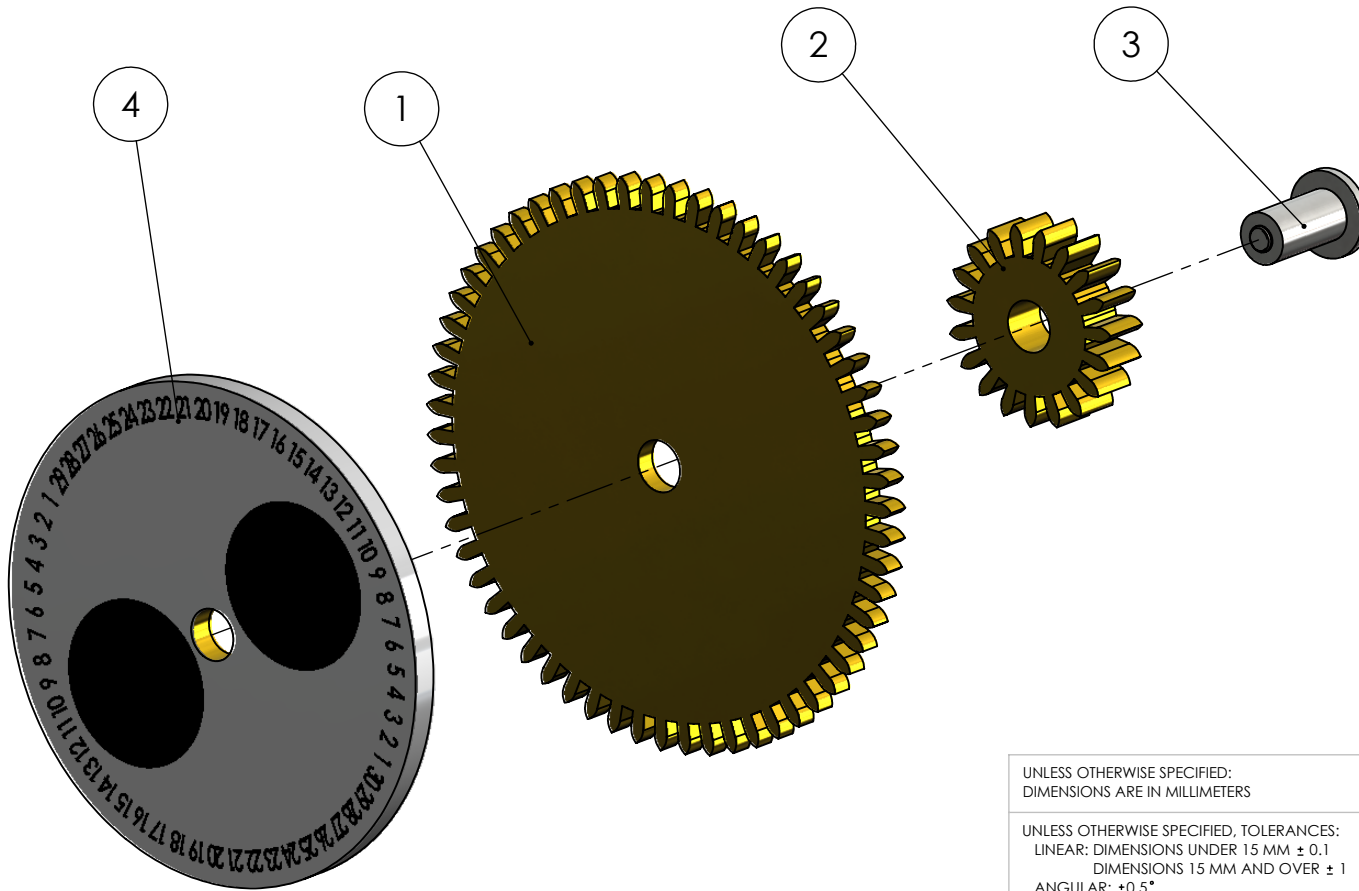
REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE: REAR DIAL PLATE

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ITEM NO.	PART NUMBER	QTY.
1	Lunar Phase Wheel	1
2	Lunar Phase Display Pinion	1
3	Lunar Phase Display Arbor	1
4	Lunar Phase Date Disc	1



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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

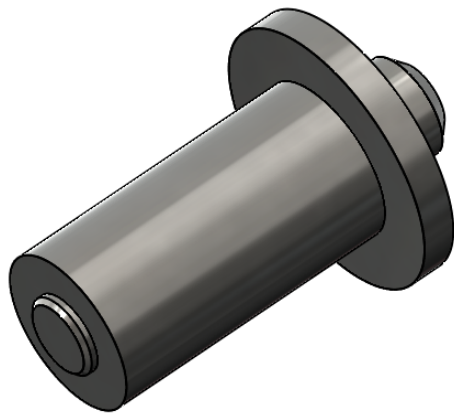
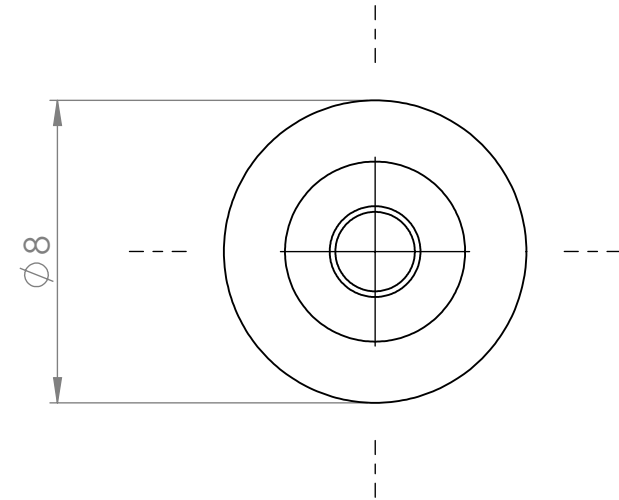
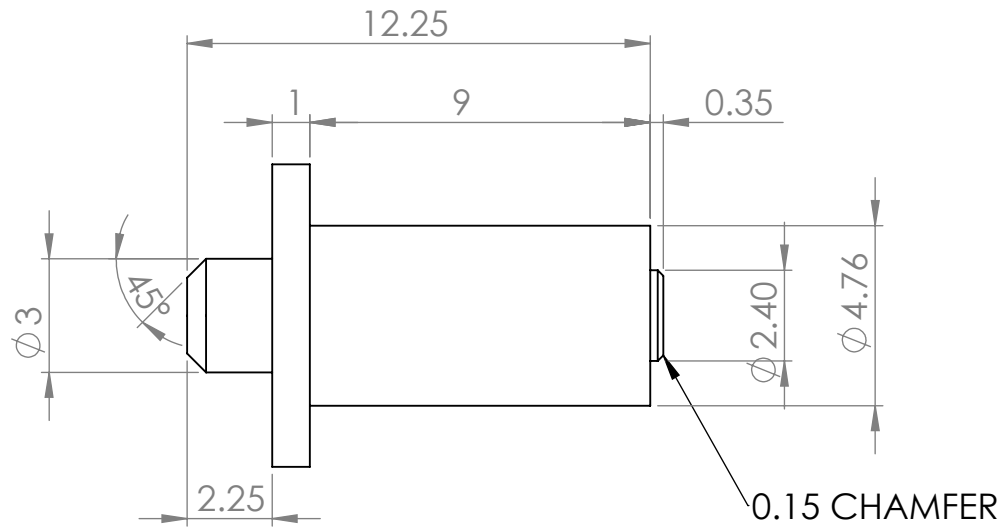
TITLE:

# LUNAR PHASE DISPLAY ASSEMBLY

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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

TITLE:

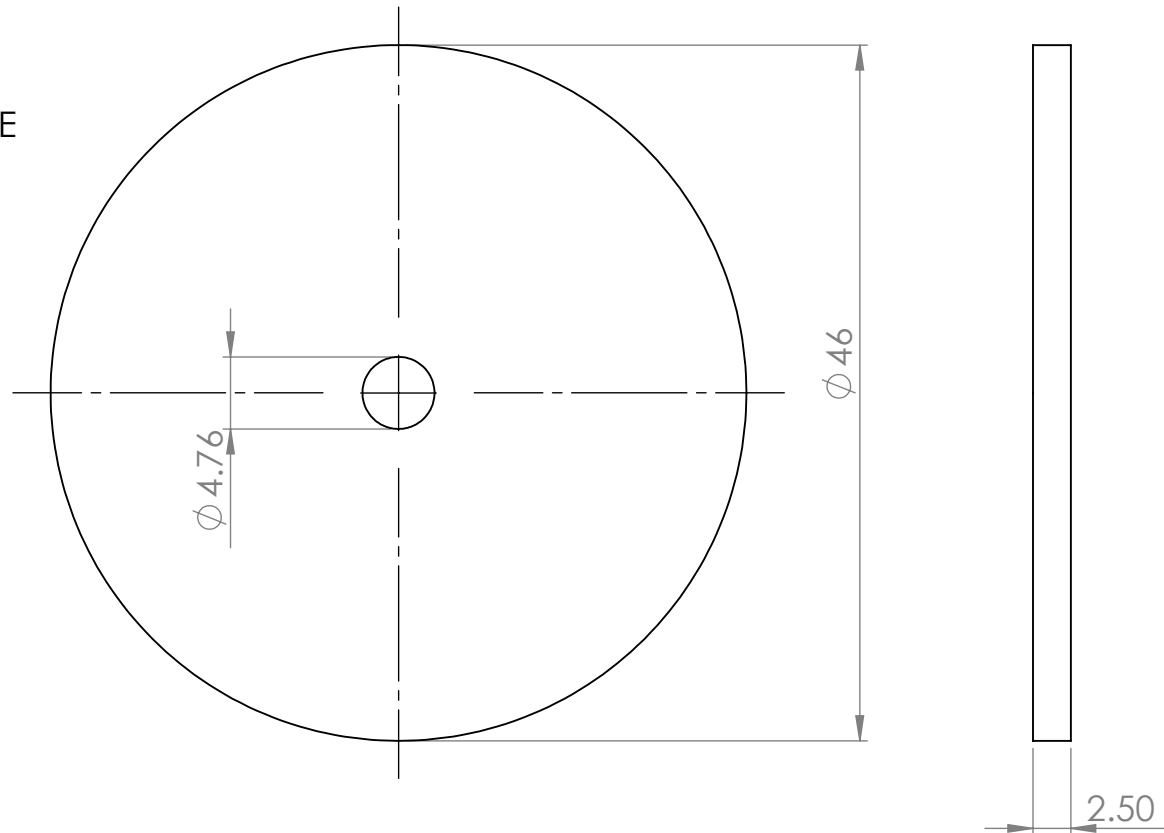
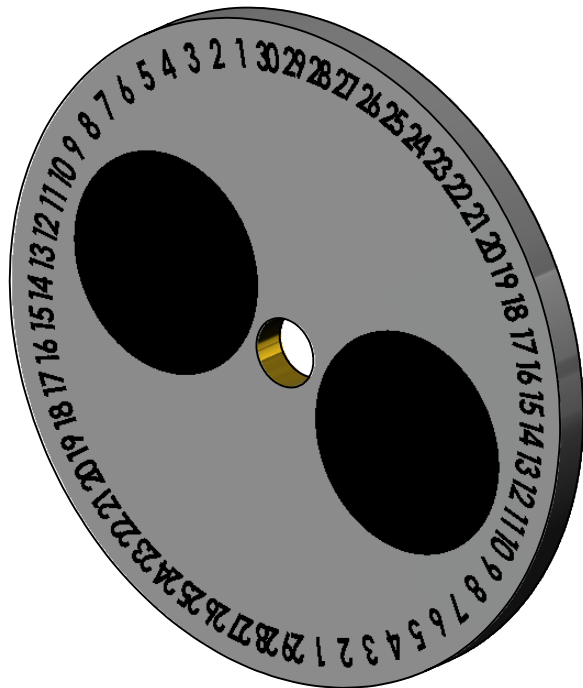
LUNAR PHASE DISPLAY  
ARBOR



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NOTES UNLESS OTHERWISE SPECIFIED:  
 1. SEE OTHER FILES FOR ETCH TEMPLATE



UNLESS OTHERWISE SPECIFIED:  
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UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
 LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
 DIMENSIONS 15 MM AND OVER  $\pm 1$   
 ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
 0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:

LUNAR PHASE DATE DISC

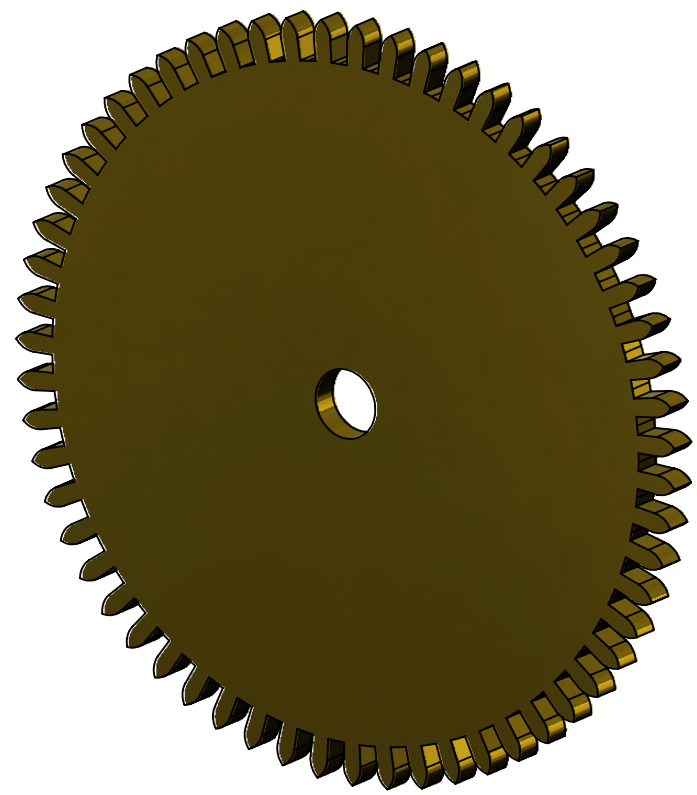
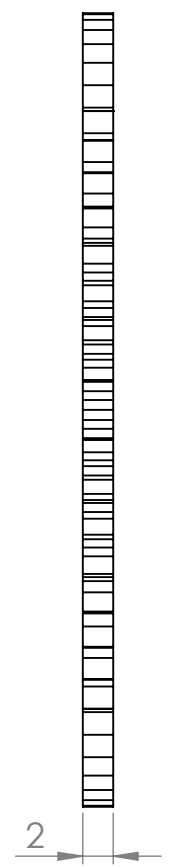
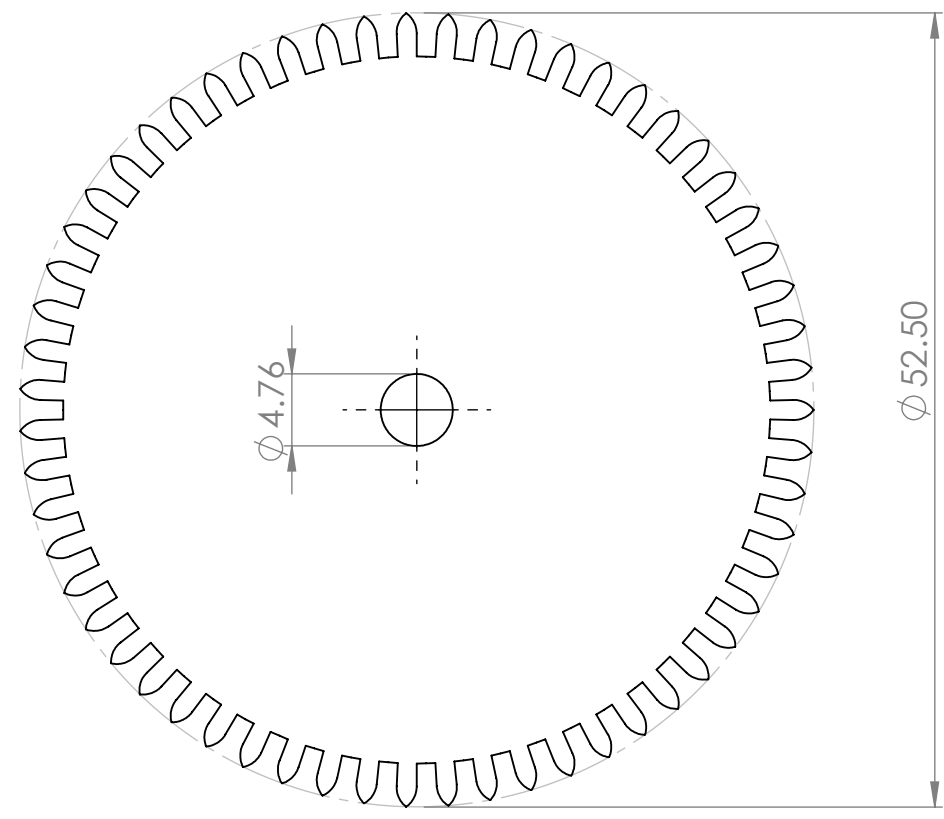


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NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 59
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:  
**LUNAR PHASE WHEEL**

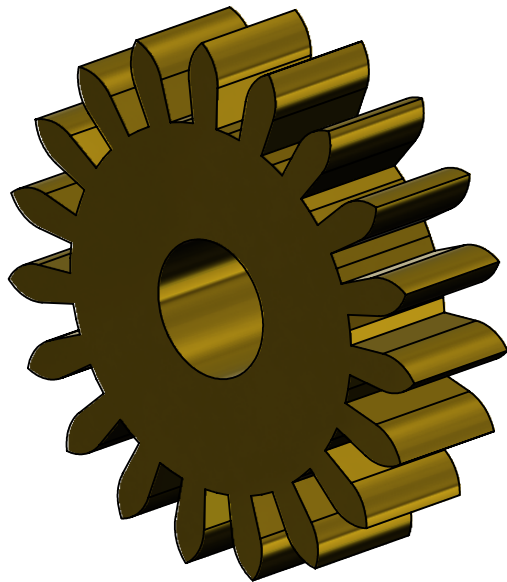
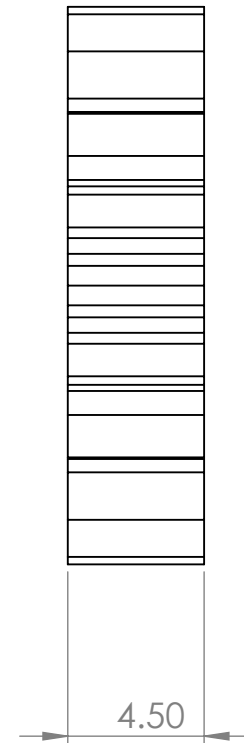
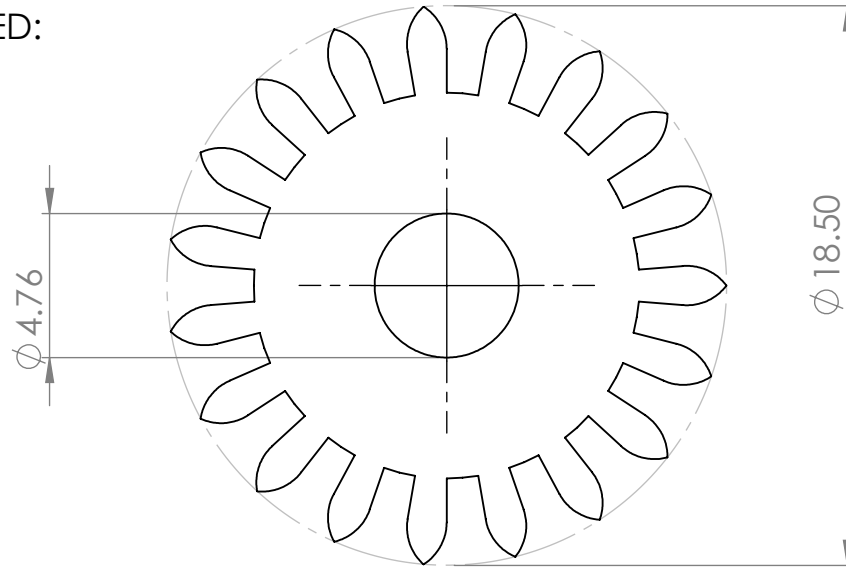


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NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 19
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:  
**LUNAR PHASE DISPLAY  
PINION**

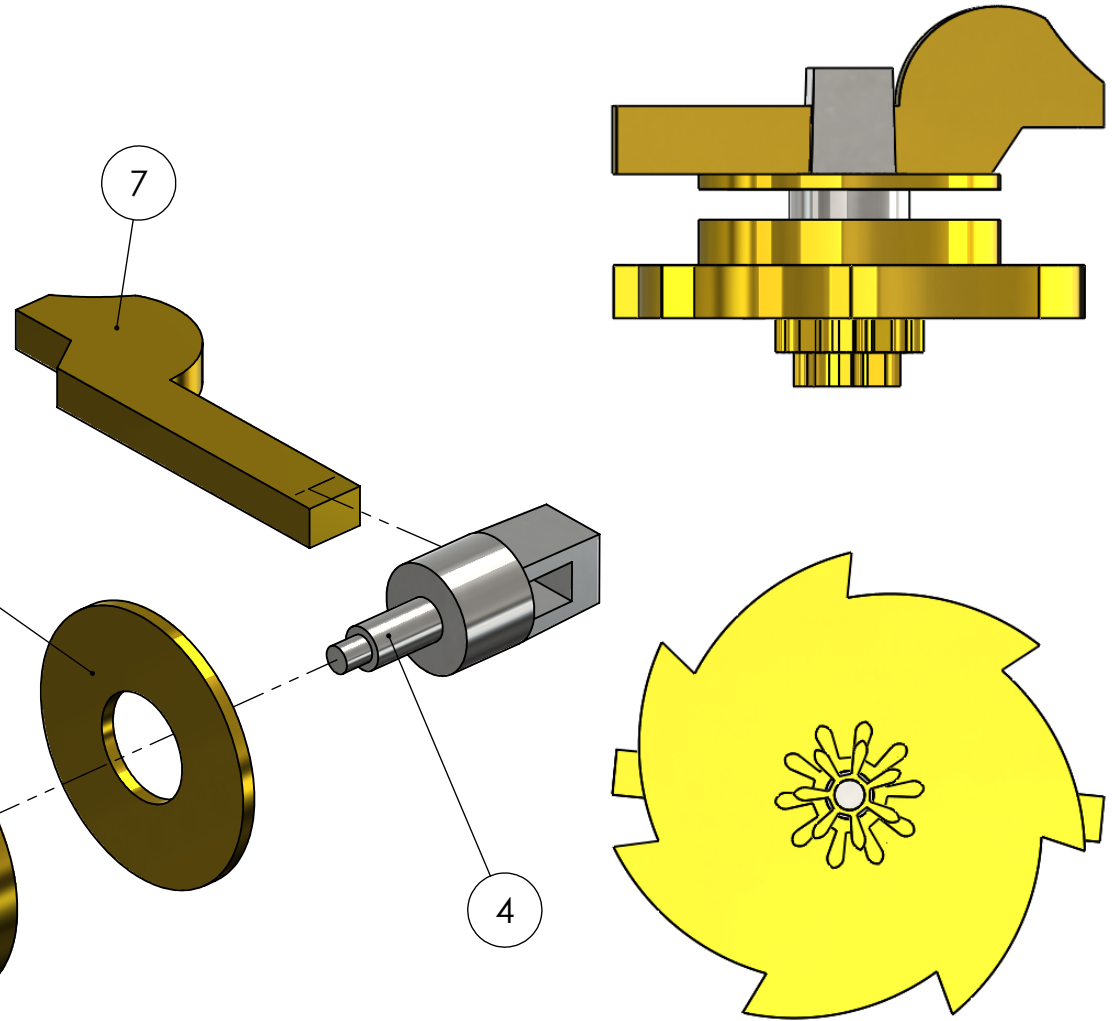


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ITEM NO.	PART NUMBER	QTY.
1	7 Tooth Straight Ratchet	1
2	7 Tooth Pinion	1
3	10 Tooth Pinion	1
4	Ratchet Arbor	1
5	Ratchet Spacer	1
6	Ratchet Washer	1
7	Ratchet Cotter Pin	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

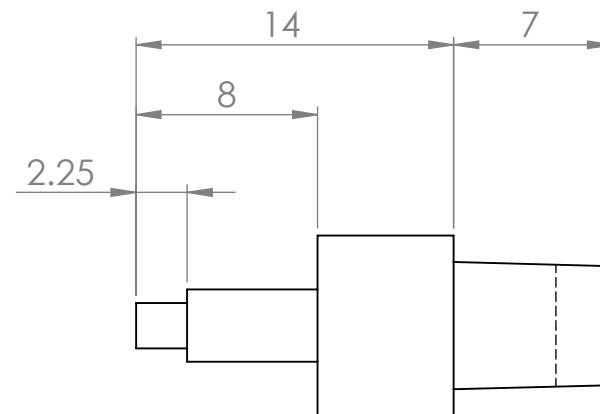
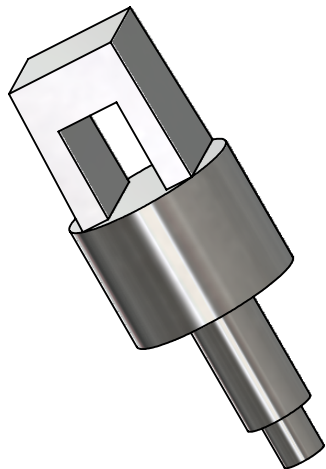
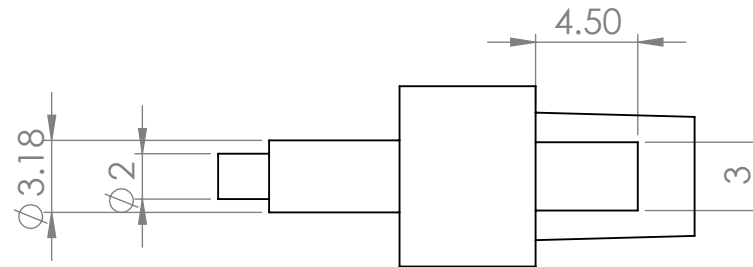
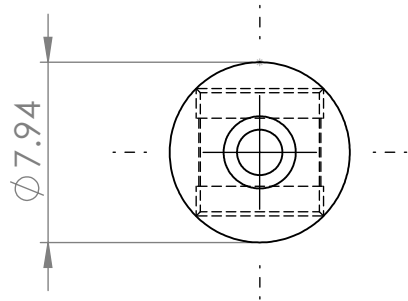
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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

TITLE:  
**RATCHET ASSEMBLY**

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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

TITLE:

RATCHET ARBOR

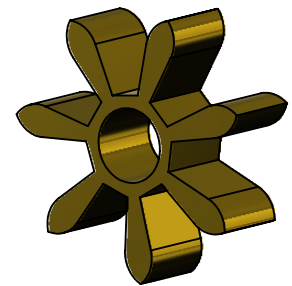
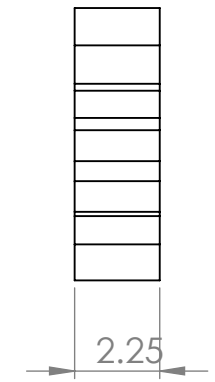
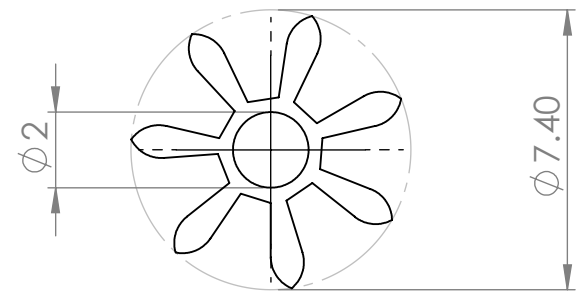


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NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 7
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
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DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:  
**7 TOOTH PINION**

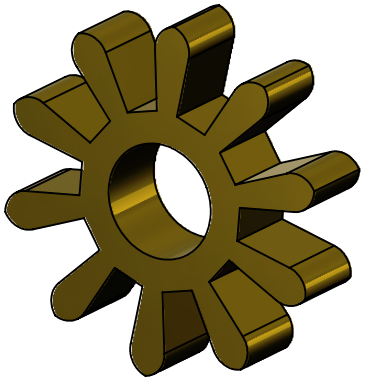
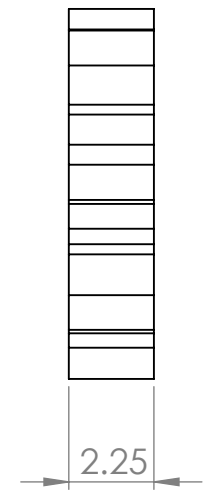
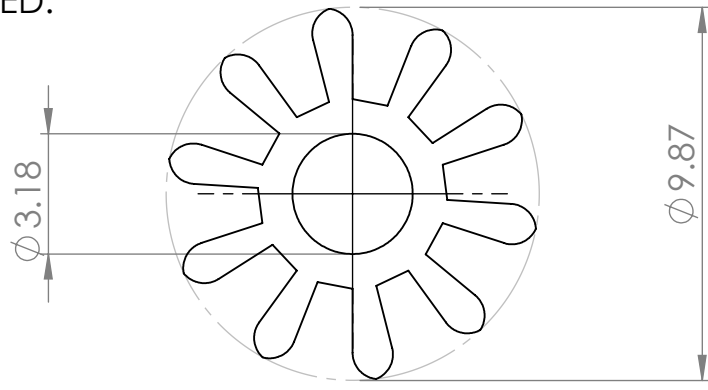


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NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 10
- MODULE 0.85



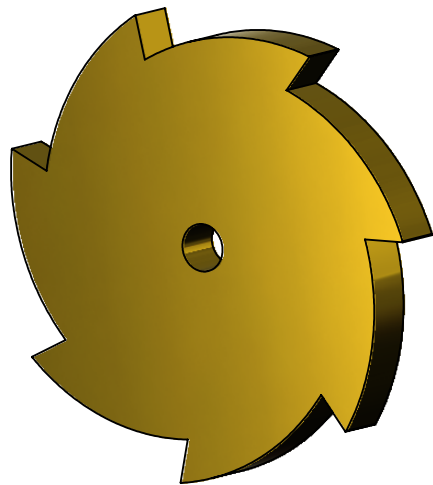
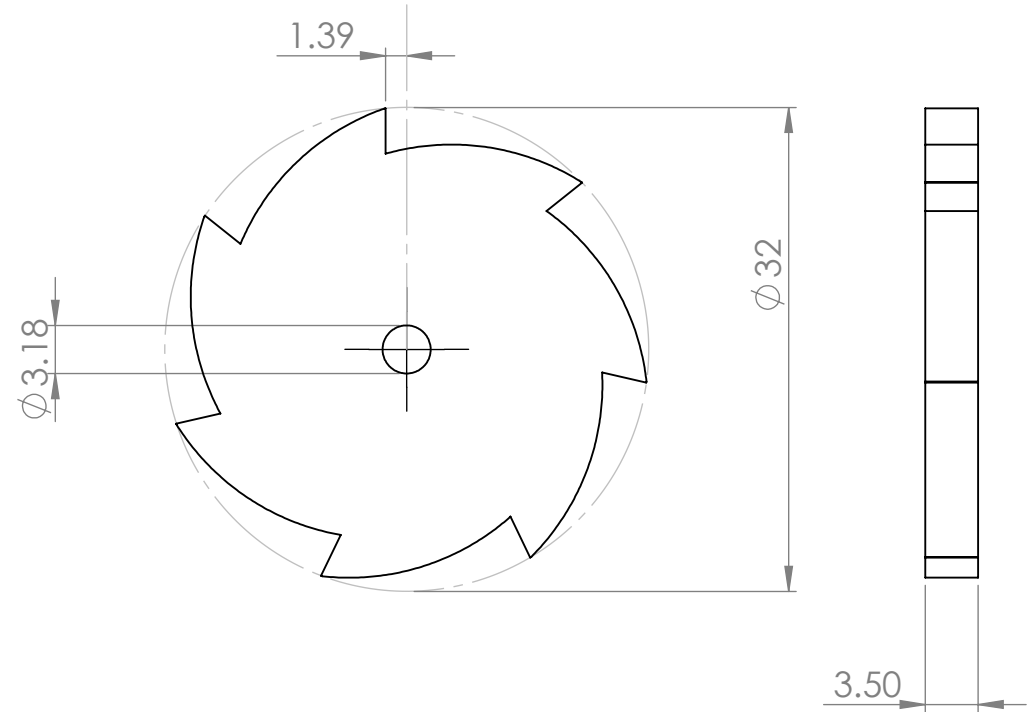
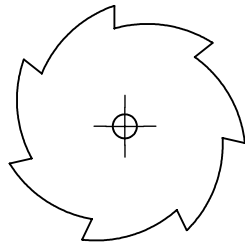
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM $\pm 0.1$ DIMENSIONS 15 MM AND OVER $\pm 1$ ANGULAR: $\pm 0.5^\circ$
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX
MATERIAL: BRASS

TITLE: <b>10 TOOTH PINION</b>	 <a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>	A4



NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 7
- USE 1:1 TEMPLATE BELOW TO FILE



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

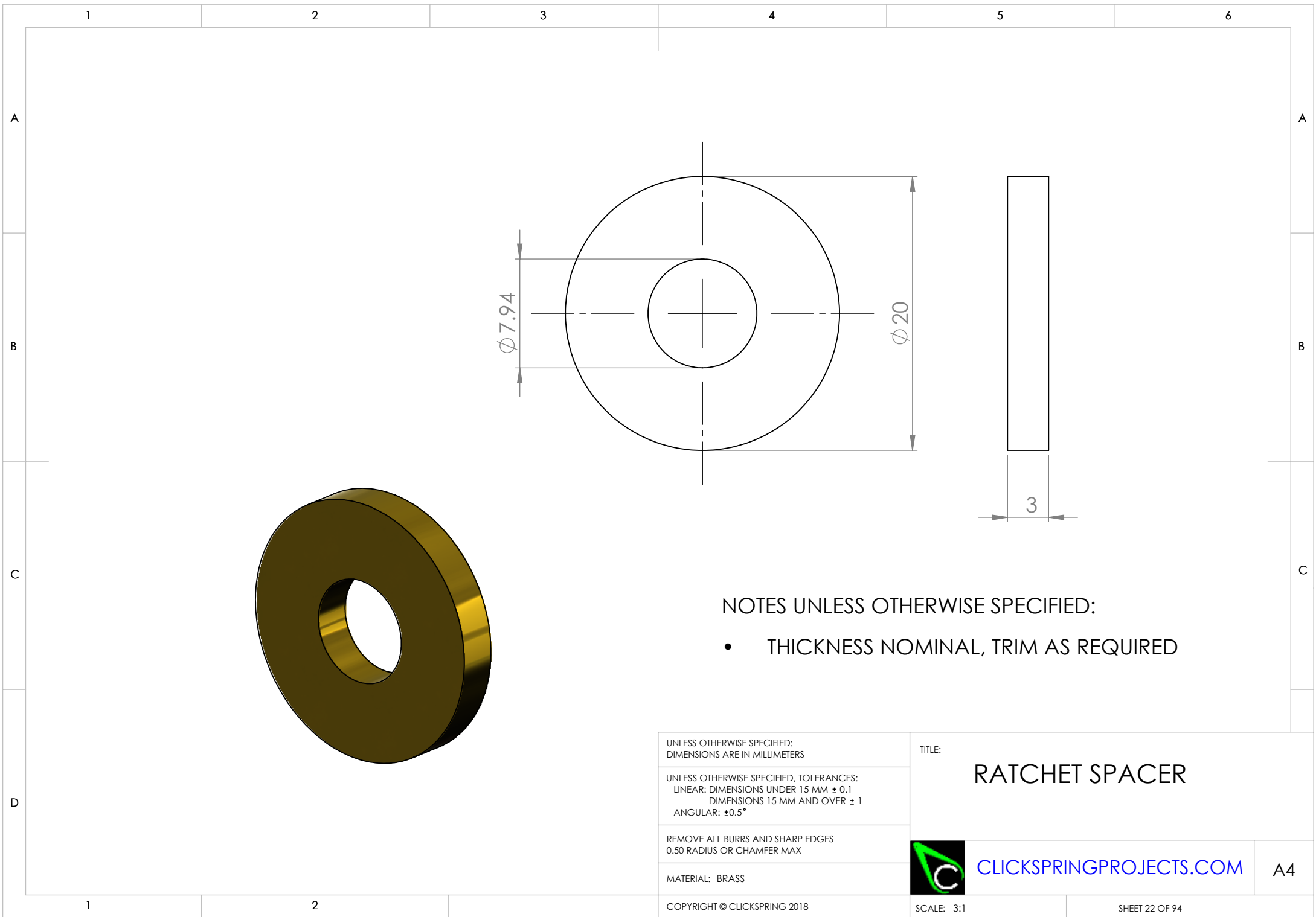
MATERIAL: BRASS

TITLE:  
**7 TOOTH RATCHET**



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A4

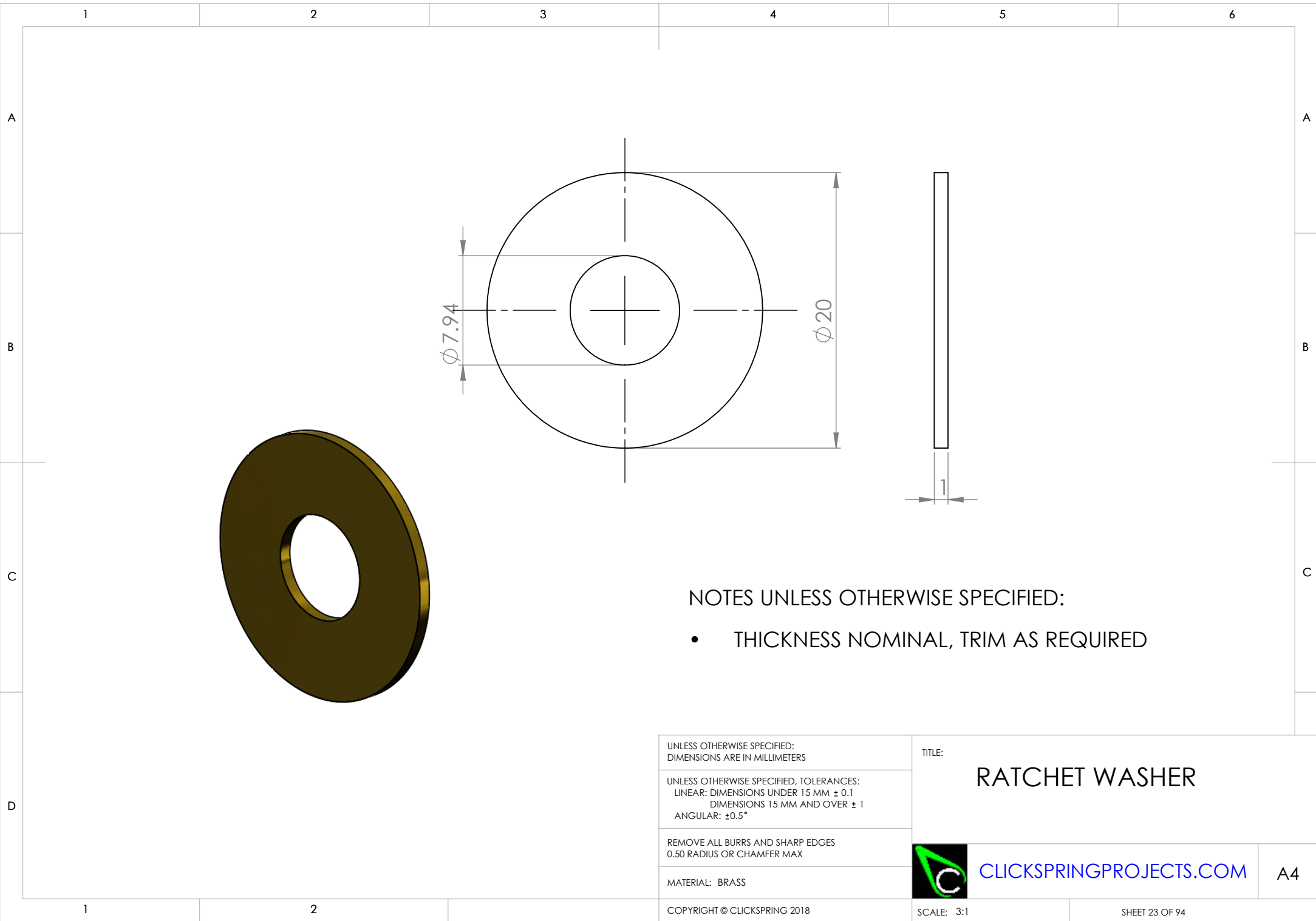


NOTES UNLESS OTHERWISE SPECIFIED:

- THICKNESS NOMINAL, TRIM AS REQUIRED


UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM ± 0.1 DIMENSIONS 15 MM AND OVER ± 1 ANGULAR: ±0.5°
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX
MATERIAL: BRASS

TITLE: <b>RATCHET SPACER</b>	 <a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>	A4
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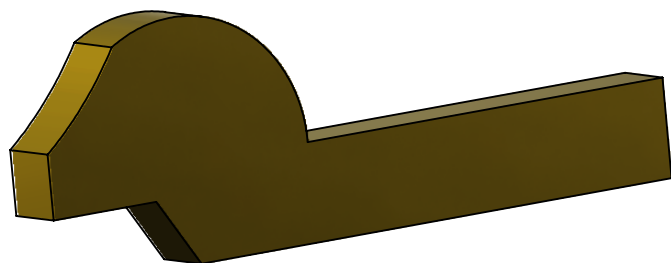
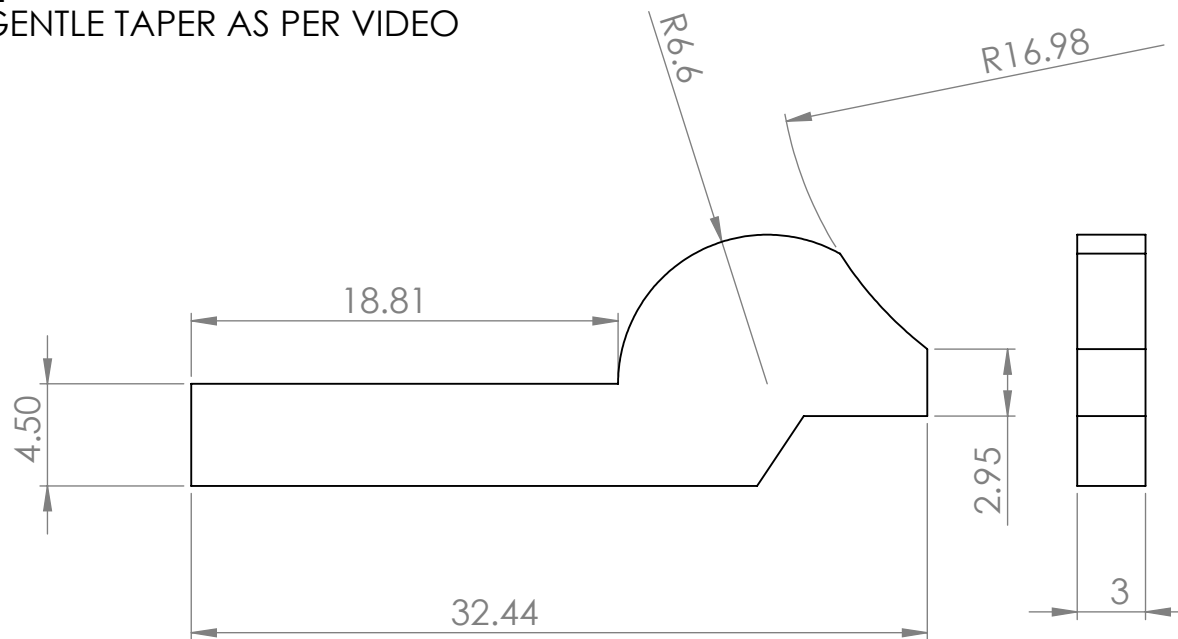
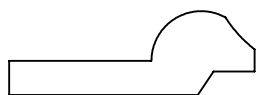
NOTES UNLESS OTHERWISE SPECIFIED:

- THICKNESS NOMINAL, TRIM AS REQUIRED

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	TITLE: <b>RATCHET WASHER</b>	
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM $\pm 0.1$ DIMENSIONS 15 MM AND OVER $\pm 1$ ANGULAR: $\pm 0.5^\circ$		
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX		
MATERIAL: BRASS		<a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>
COPYRIGHT © CLICKSPRING 2018		

NOTES UNLESS OTHERWISE SPECIFIED:

- USE TEMPLATE TO FILE TO SHAPE
- 4.5mm SHANK NOMINAL; FILE GENTLE TAPER AS PER VIDEO



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

RATCHET COTTER PIN



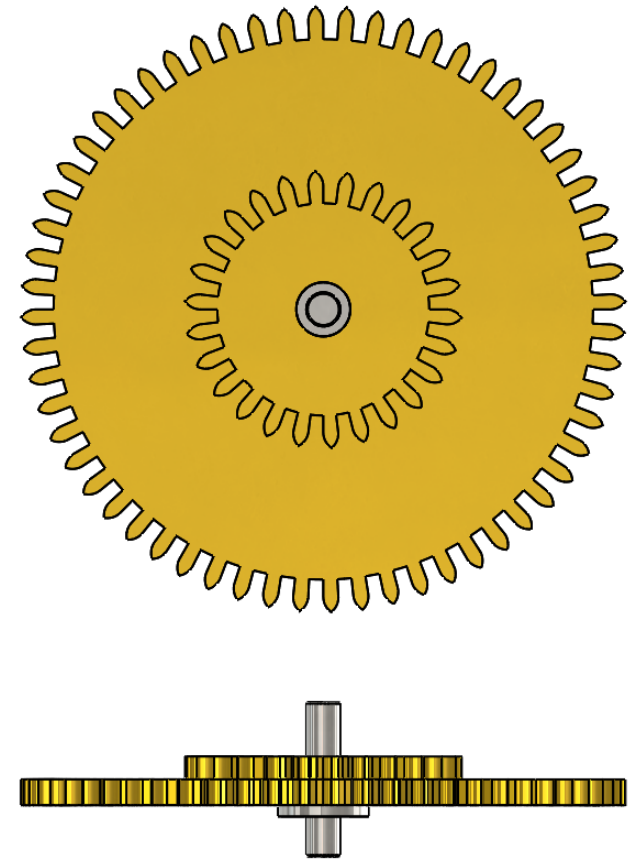
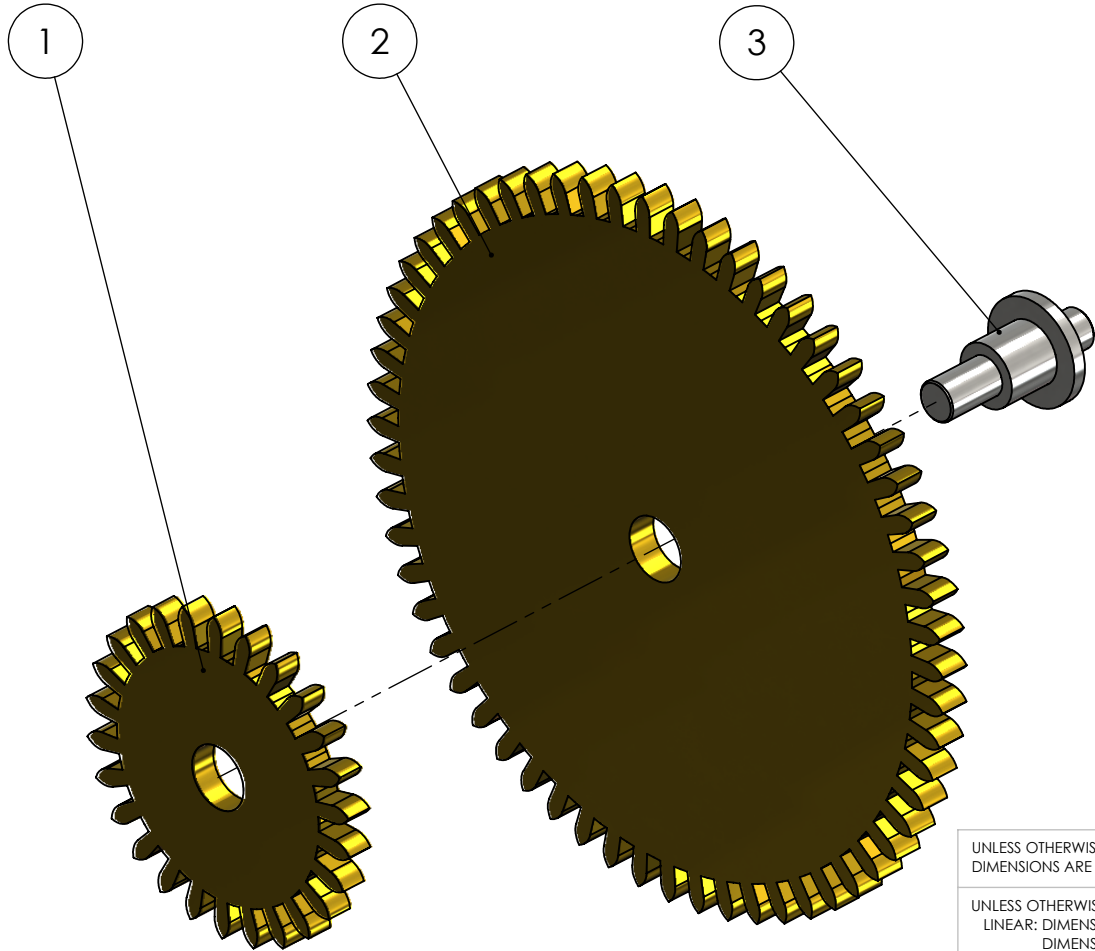
CLICKSPRINGPROJECTS.COM

A4

SCALE: 3:1

SHEET 24 OF 94

ITEM NO.	PART NUMBER	QTY.
1	Solar Intermediate Pinion	1
2	Solar Intermediate Wheel	1
3	Solar Intermediate Wheel Arbor	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

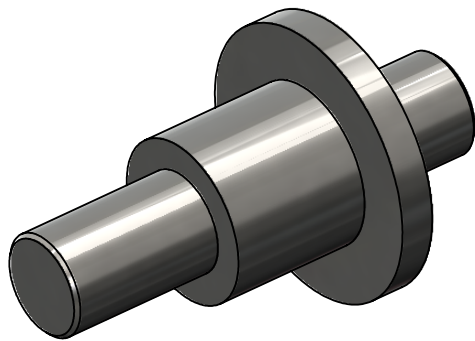
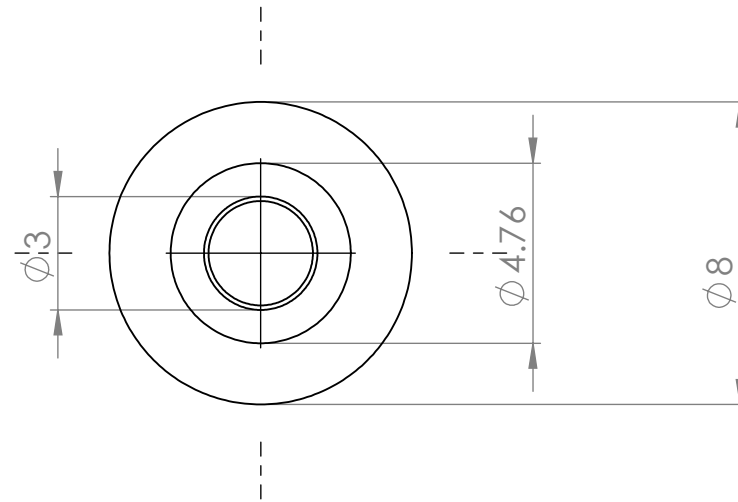
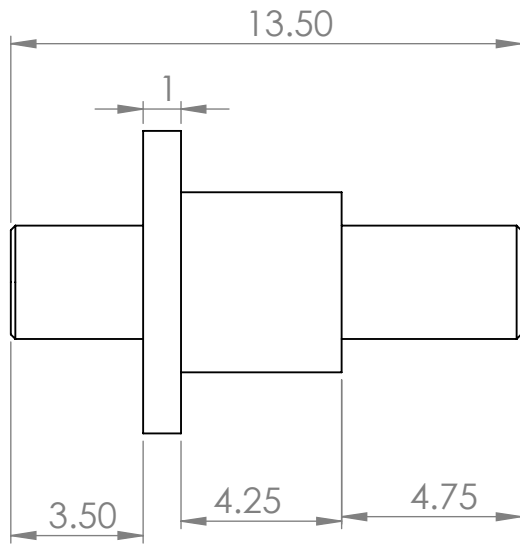
MATERIAL: BRASS, MILD STEEL

TITLE:

## SOLAR INTERMEDIATE WHEEL ASSEMBLY

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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

TITLE:

SOLAR INTERMEDIATE  
WHEEL ARBOR



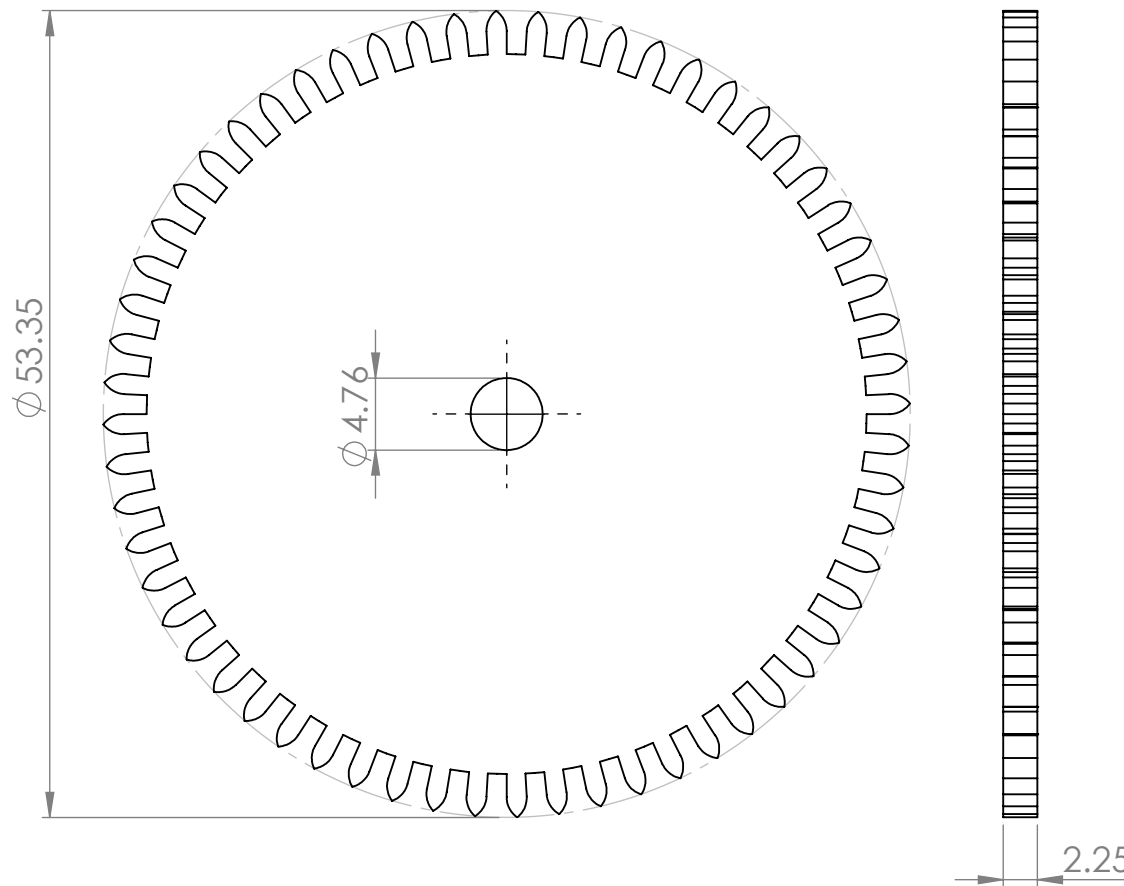
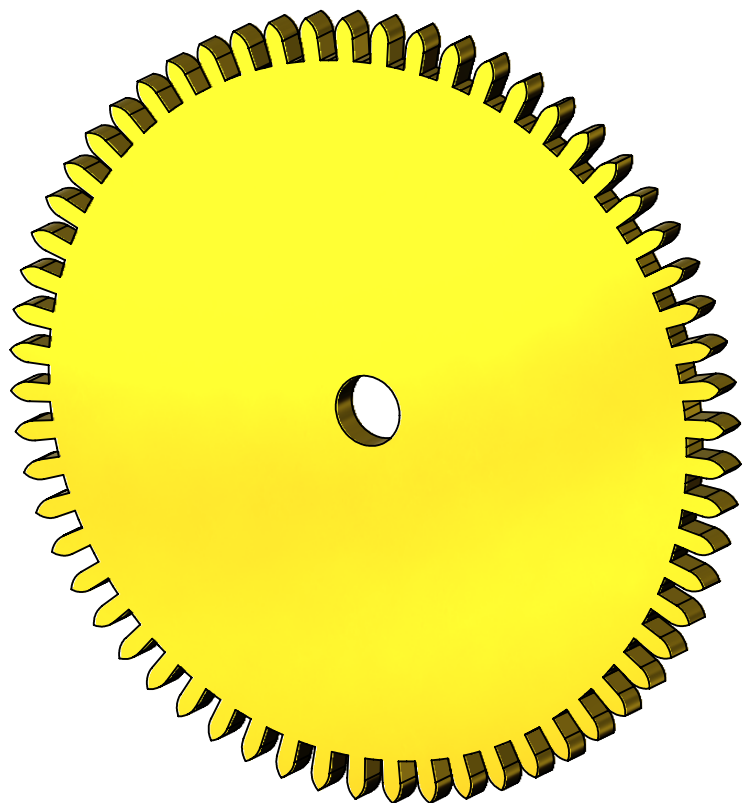
CLICKSPRINGPROJECTS.COM


A4



NOTES UNLESS OTHERWISE SPECIFIED:

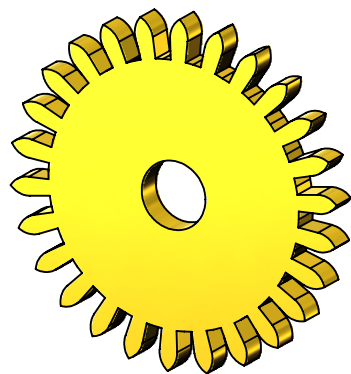
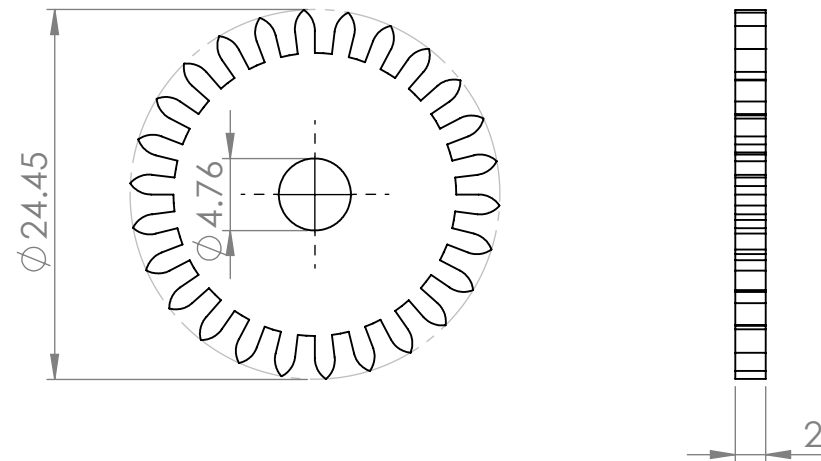
- TEETH NUMBER = 60
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	TITLE:  <b>SOLAR INTERMEDIATE WHEEL</b>
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM ± 0.1 DIMENSIONS 15 MM AND OVER ± 1 ANGULAR: ±0.5°	
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX	 <a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>
MATERIAL: BRASS	

NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 26
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SOLAR INTERMEDIATE  
"PINION"



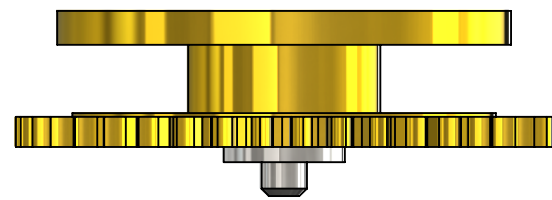
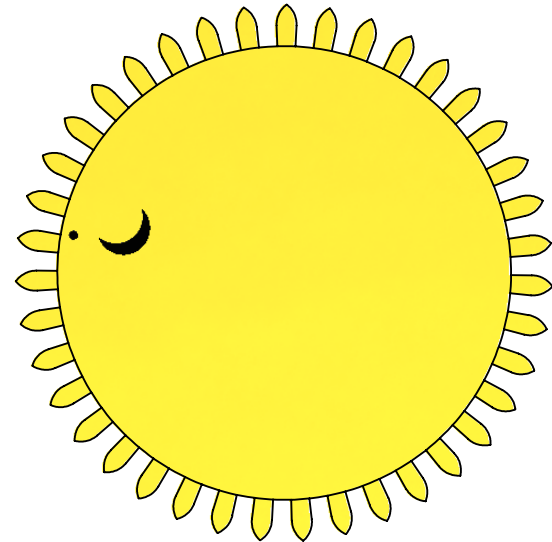
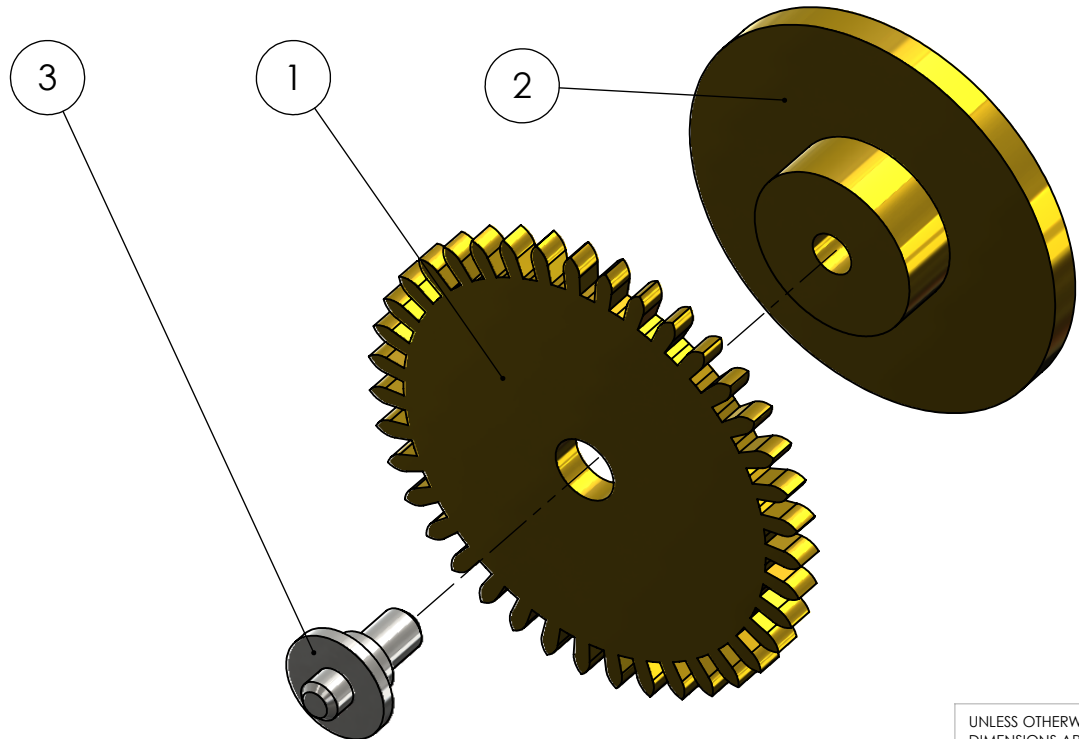
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A4

SCALE: 2:1

SHEET 28 OF 94

ITEM NO.	PART NUMBER	QTY.
1	Lunar Zodiac Display Wheel	1
2	Lunar Zodiac Display Disc	1
3	Lunar Zodiac Display Assembly Arbor	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

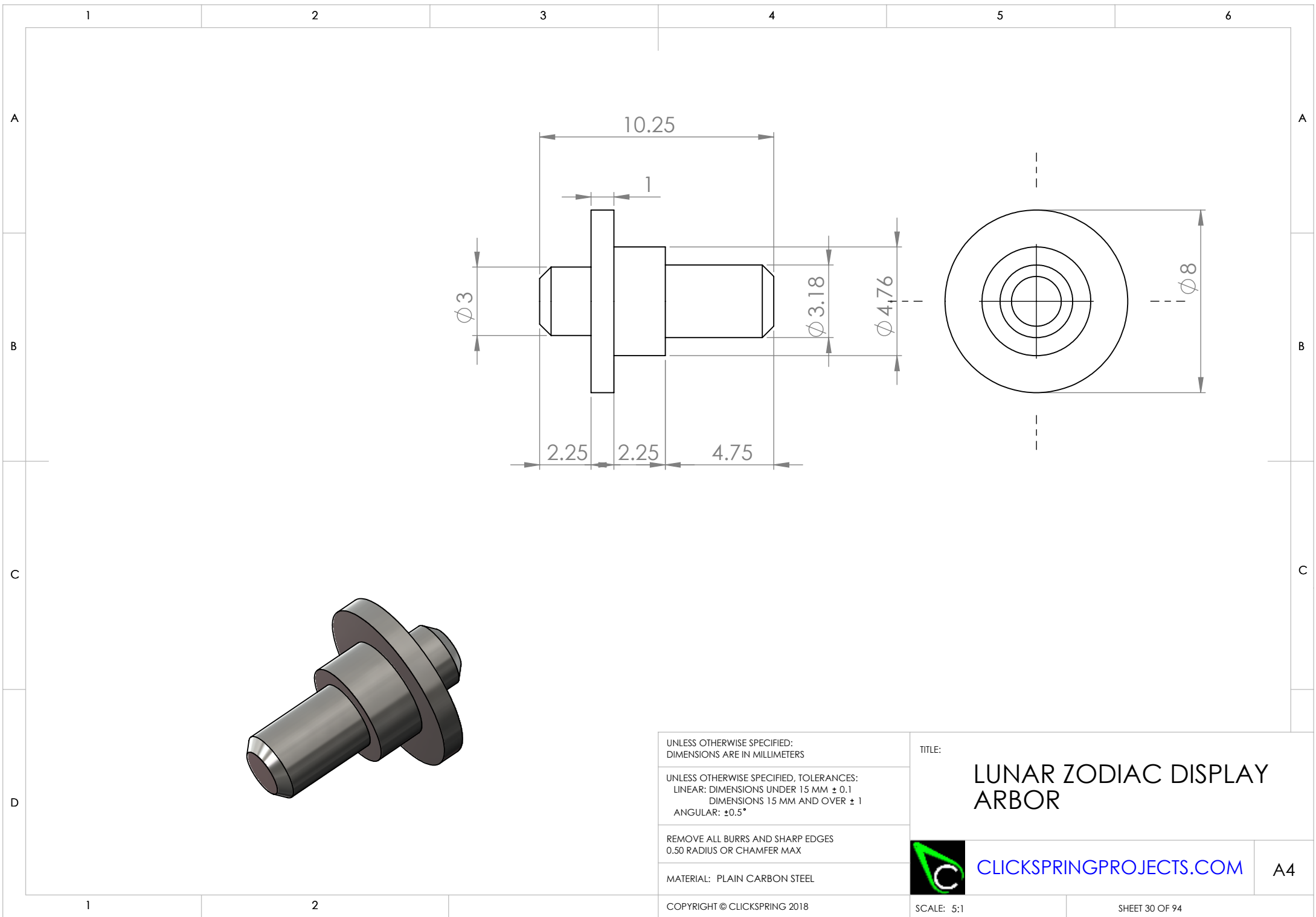
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

TITLE: LUNAR ZODIAC DISPLAY ASSEMBLY

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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

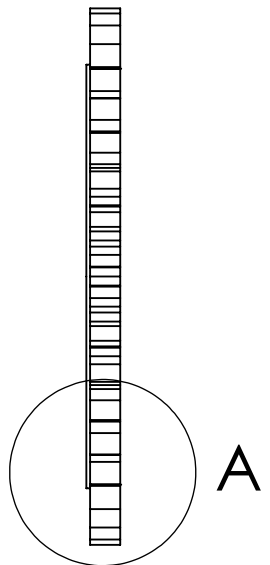
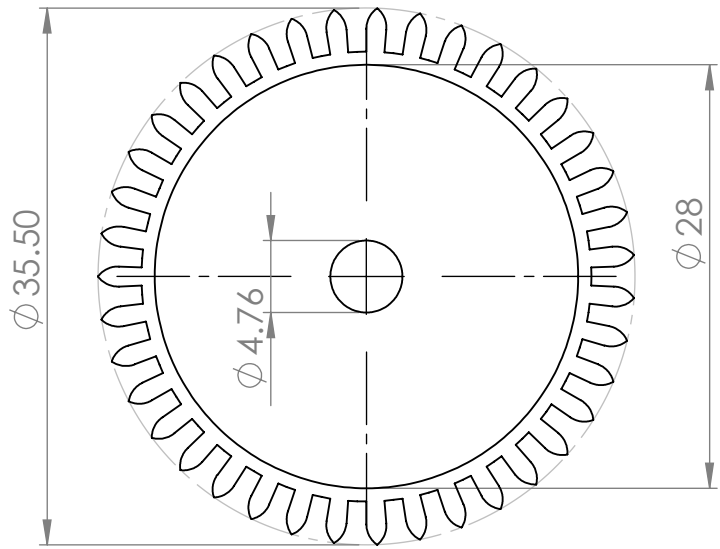
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

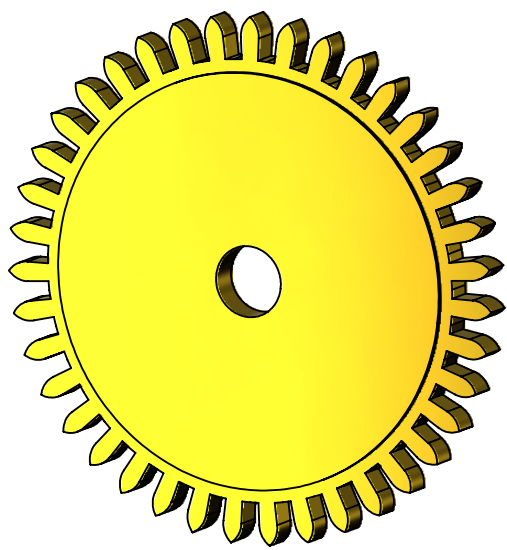
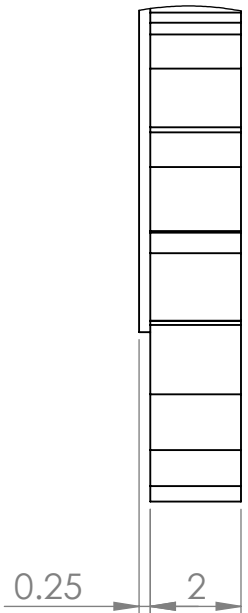
MATERIAL: PLAIN CARBON STEEL

TITLE:  
**LUNAR ZODIAC DISPLAY  
ARBOR**

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DETAIL A  
SCALE 6 : 1



NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 39
- MODULE 0.85

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

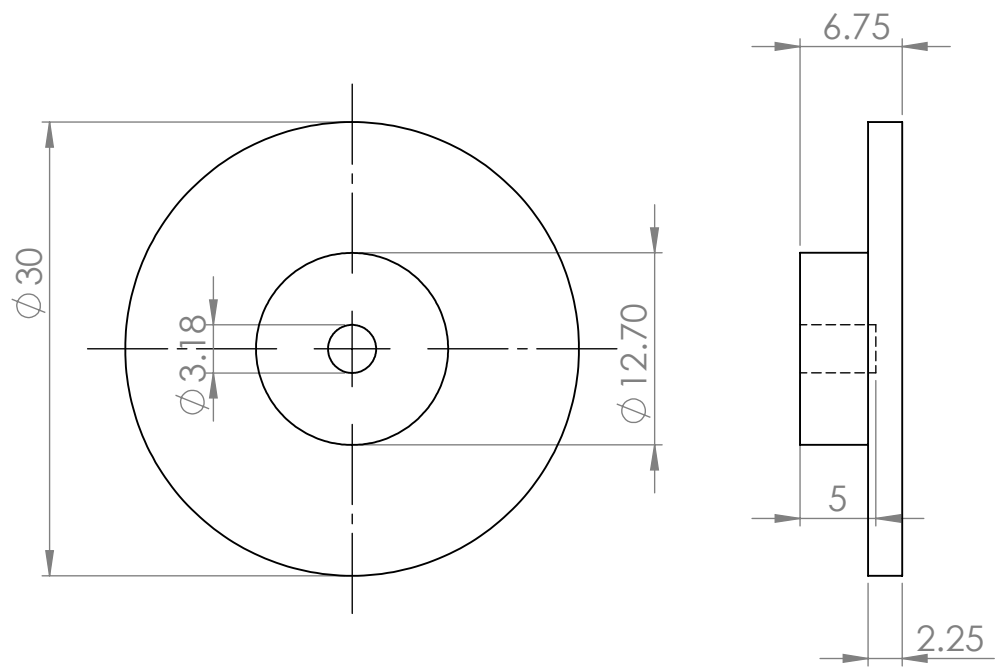
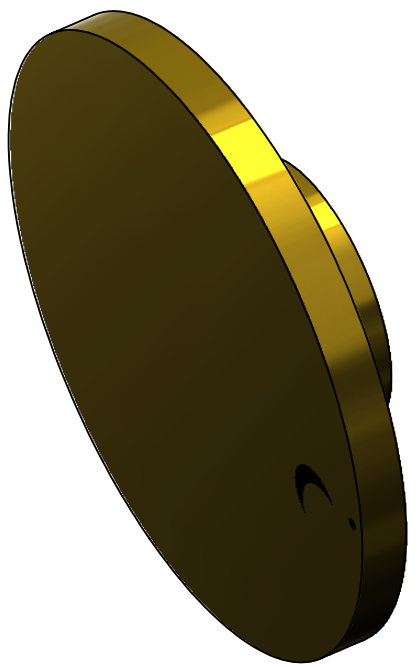
TITLE:

LUNAR ZODIAC DISPLAY  
WHEEL

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NOTES UNLESS OTHERWISE SPECIFIED:

- SEE OTHER FILES FOR ETCH TEMPLATE



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

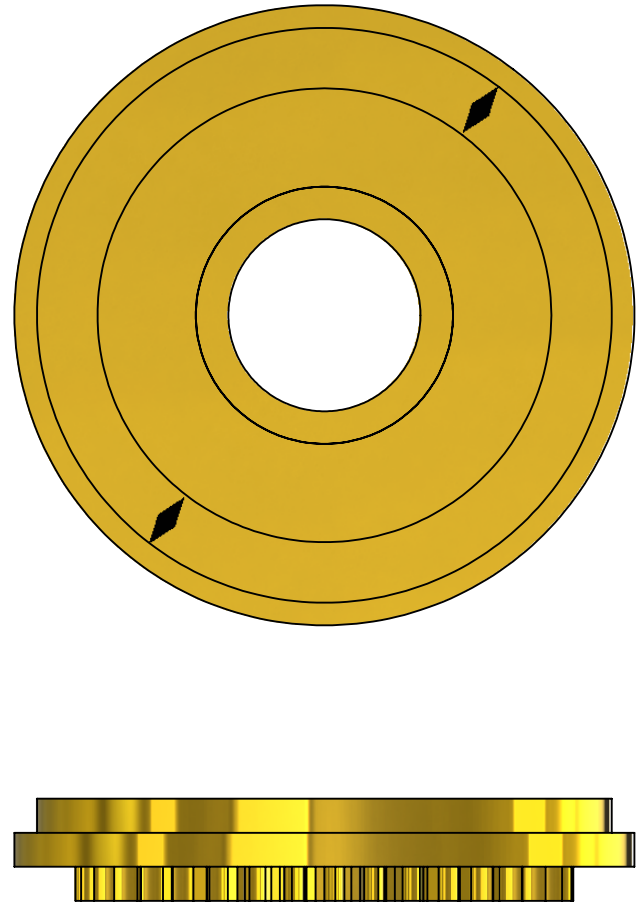
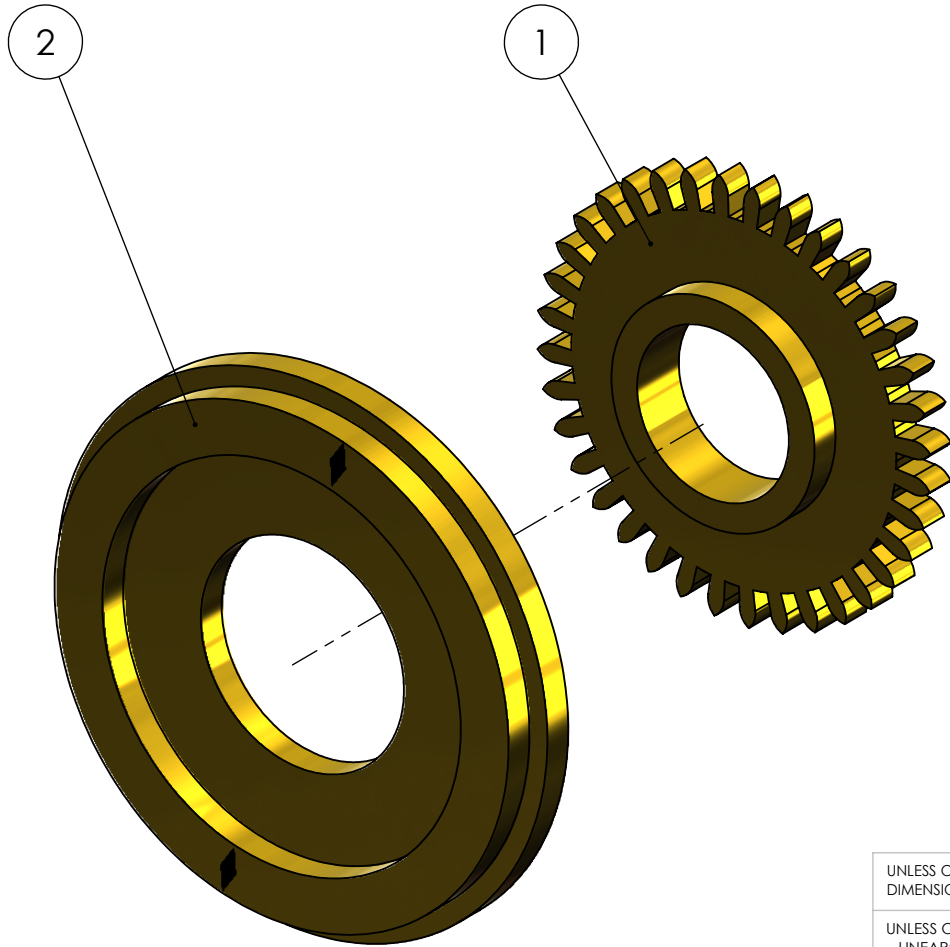
MATERIAL: BRASS

TITLE: LUNAR ZODIAC DISPLAY DISC

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ITEM NO.	PART NUMBER	QTY.
1	Node Display Wheel Lunar	1
2	Node Display Ring Lunar	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

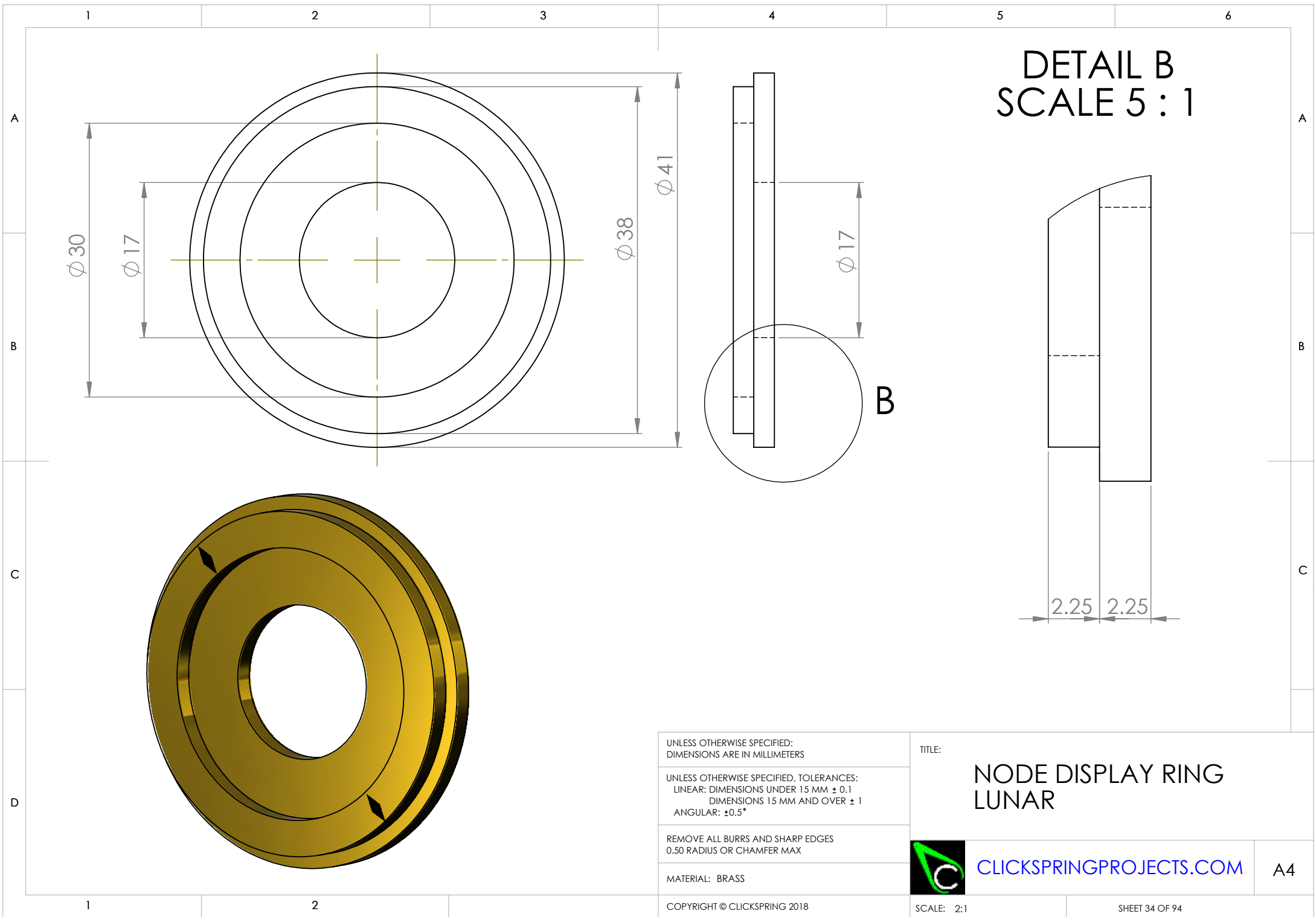
TITLE:

NODE DISPLAY ASSEMBLY  
LUNAR



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A4



DETAIL B  
SCALE 5 : 1

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

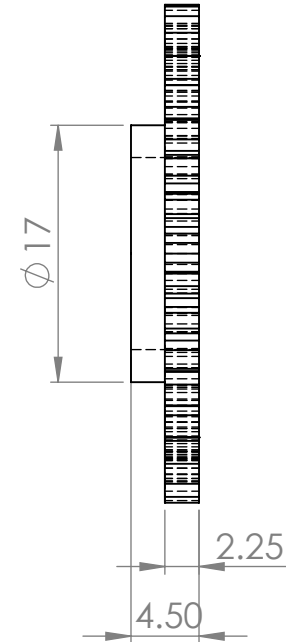
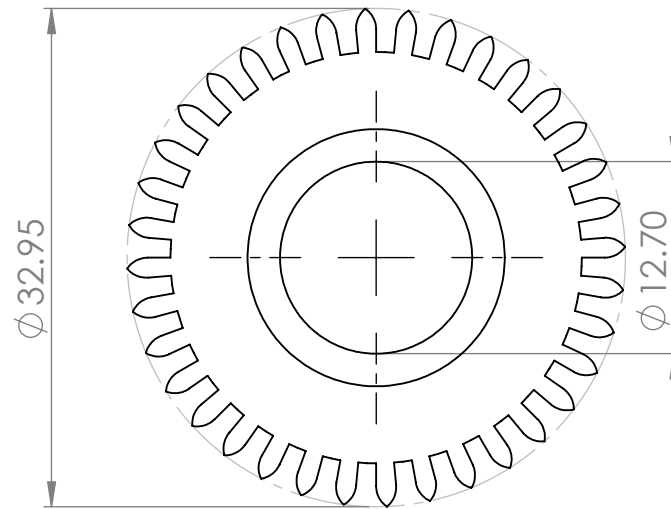
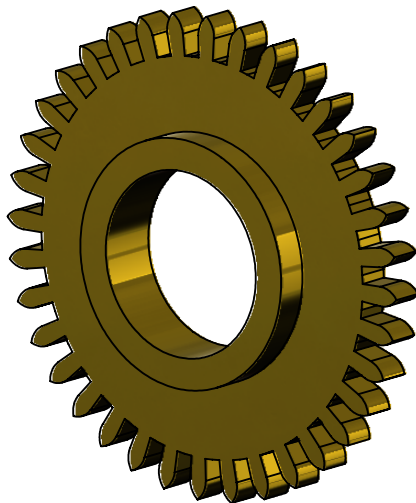
TITLE:  
**NODE DISPLAY RING  
LUNAR**

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A4

NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 36
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:

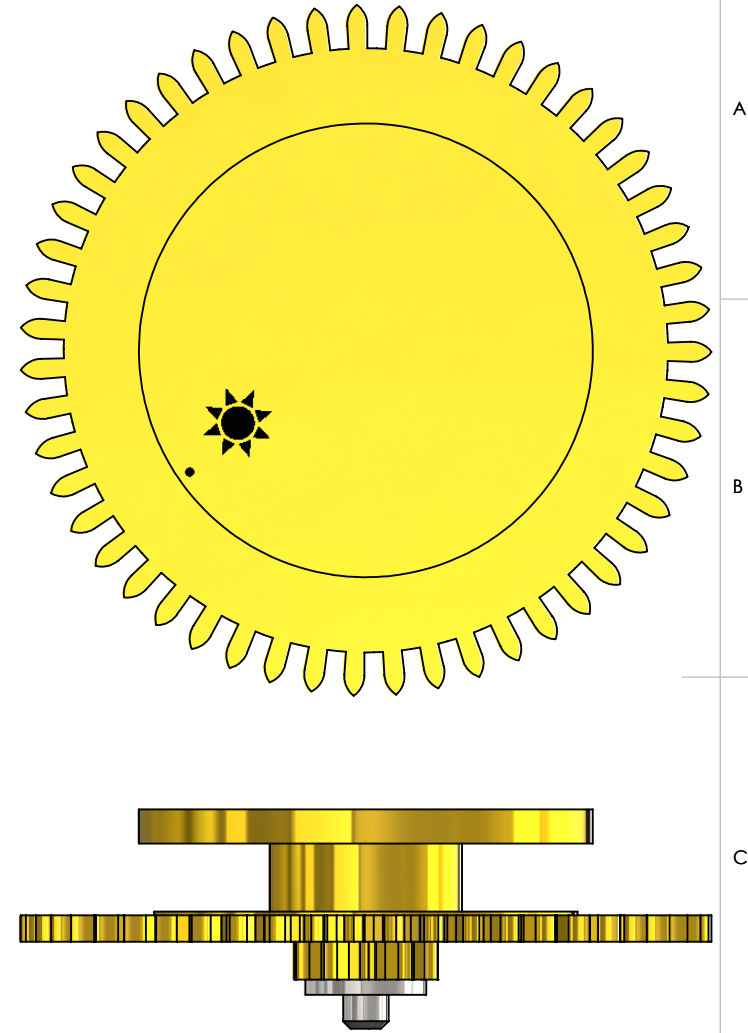
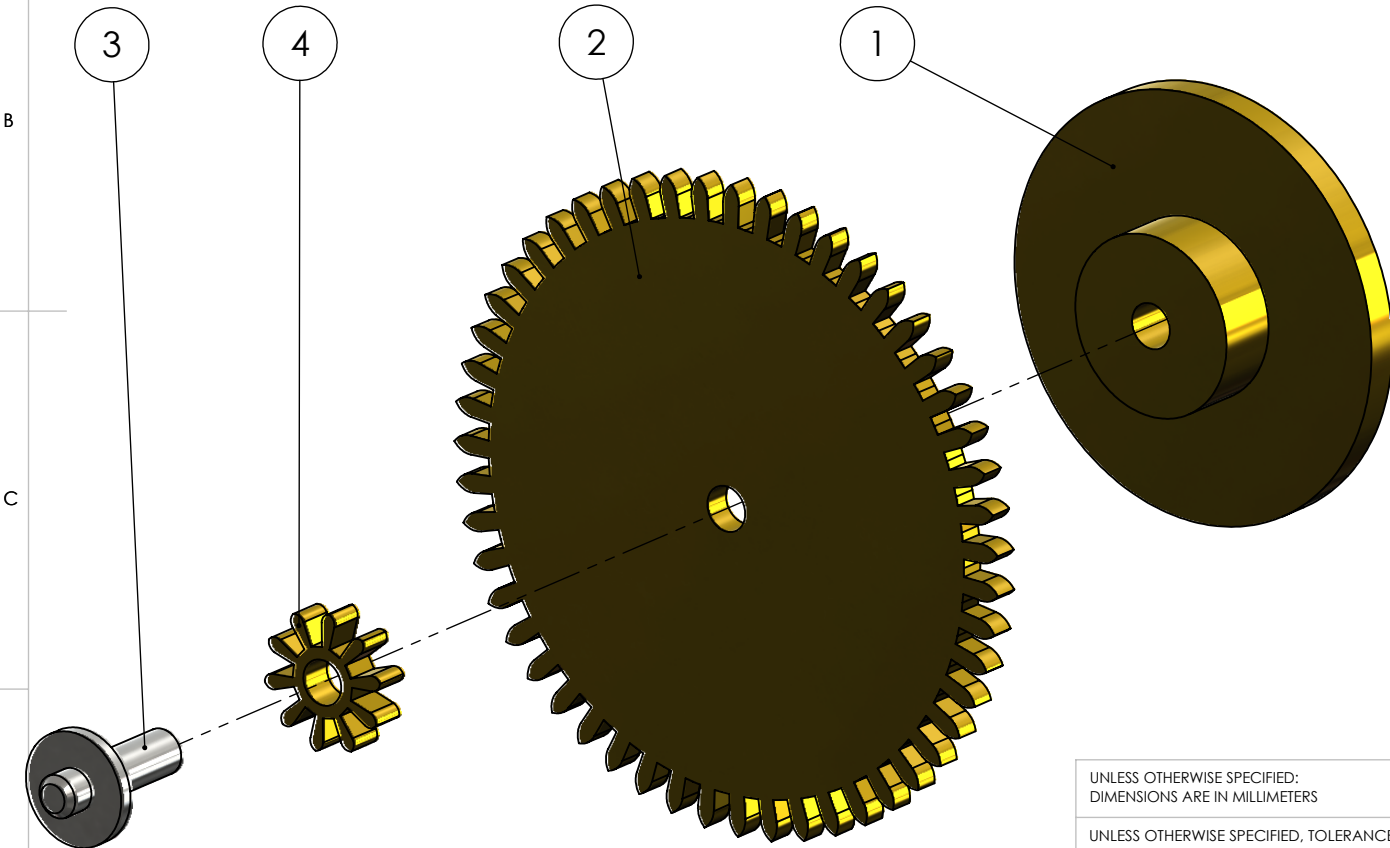
NODE DISPLAY WHEEL  
LUNAR



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A4

ITEM NO.	PART NUMBER	QTY.
1	Solar Zodiac Display Disc	1
2	Solar Zodiac Display Wheel	1
3	Solar Zodiac Display Arbor	1
4	10 Tooth Pinion_2	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

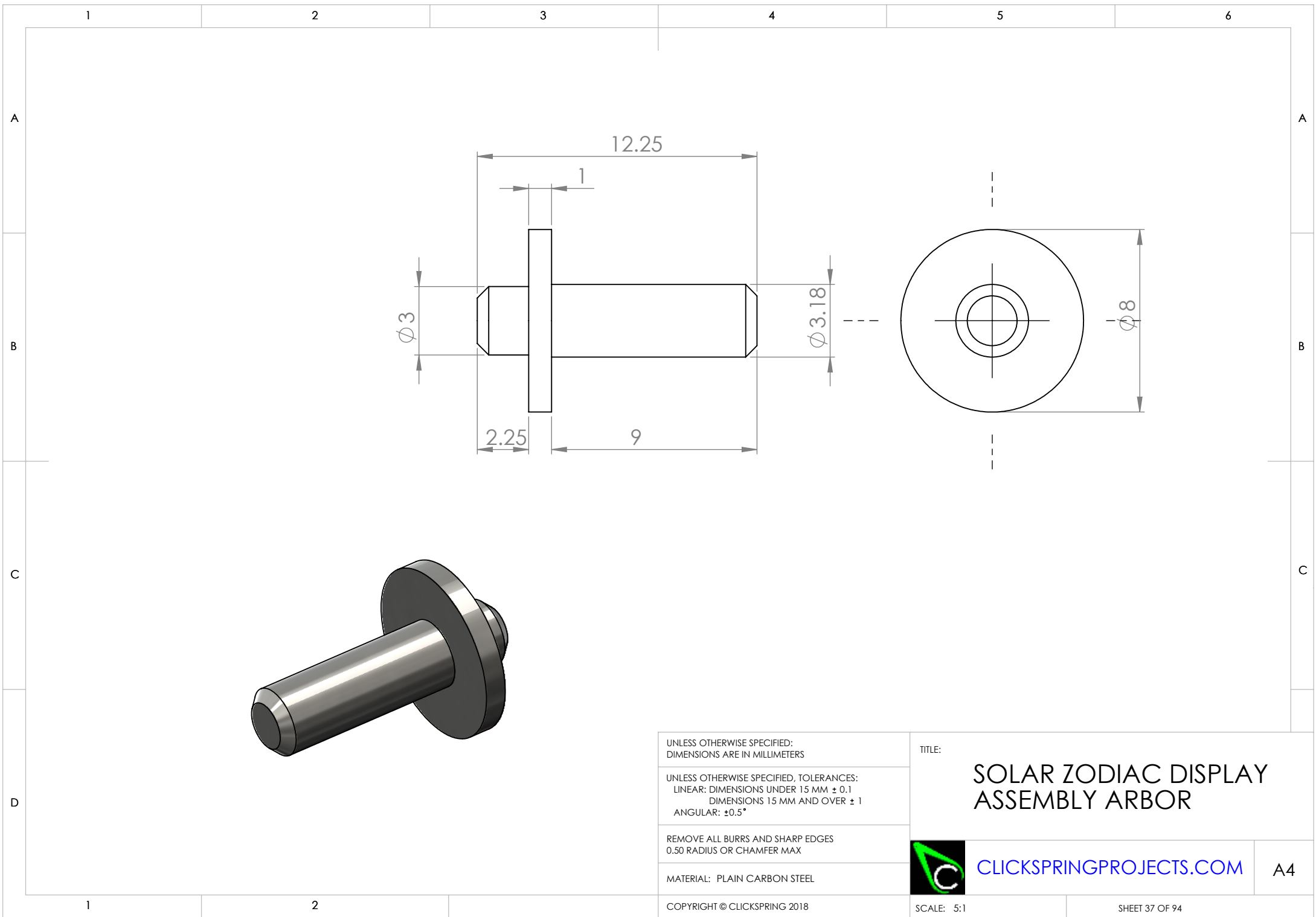
MATERIAL: BRASS

TITLE:

# SOLAR ZODIAC DISPLAY ASSEMBLY

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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

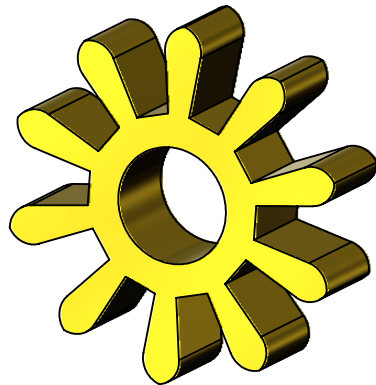
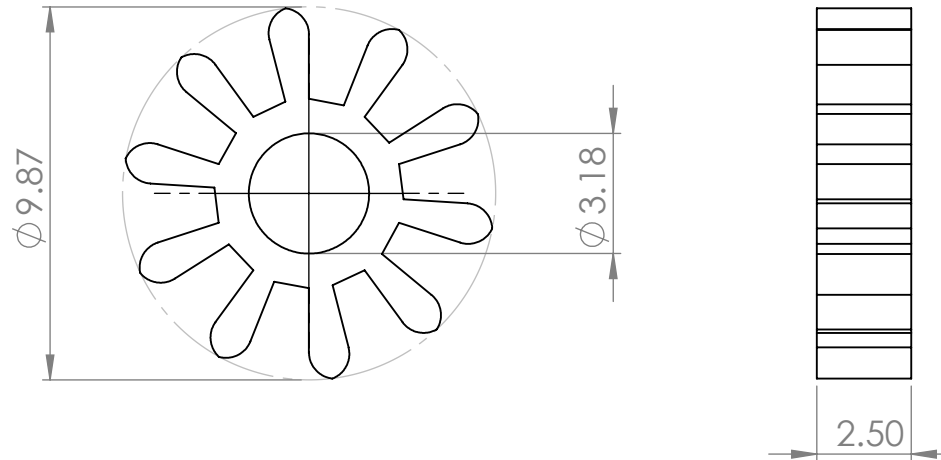
MATERIAL: PLAIN CARBON STEEL


TITLE:  
**SOLAR ZODIAC DISPLAY  
ASSEMBLY ARBOR**

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NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 10
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	TITLE:  <b>10 TOOTH PINION 2</b>
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM $\pm 0.1$ DIMENSIONS 15 MM AND OVER $\pm 1$ ANGULAR: $\pm 0.5^\circ$	
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX	 <a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>
MATERIAL: BRASS	

1

2

3

4

5

6

A

A

B

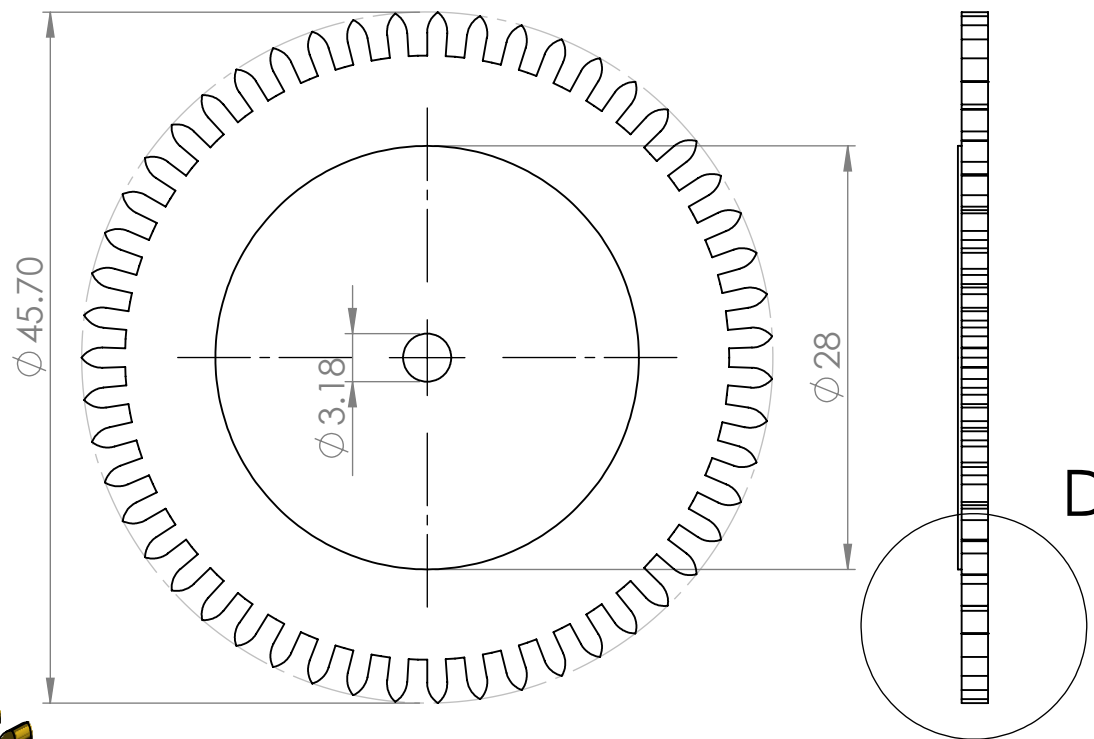
B

C

C

D

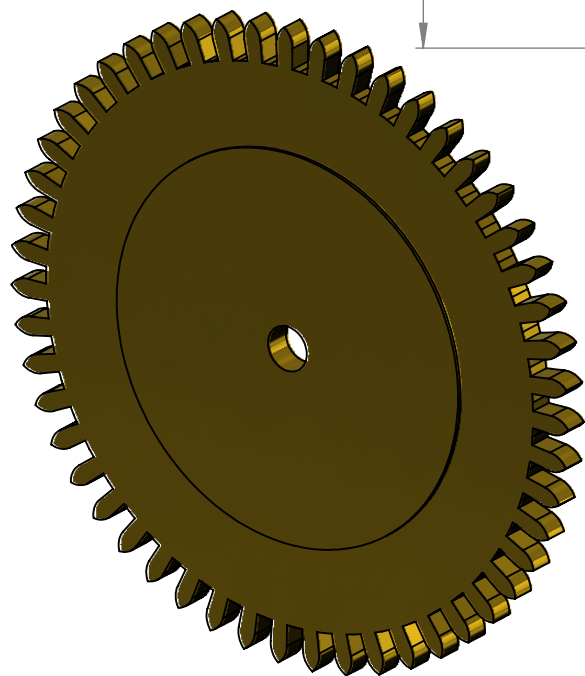
## DETAIL D SCALE 6 : 1



### NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 51
- MODULE 0.85

0.25 1.75



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SOLAR ZODIAC DISPLAY  
WHEEL



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SCALE: 2:1

SHEET 39 OF 94

1

2

1

2

3

4

5

6

A

A

B

B

C

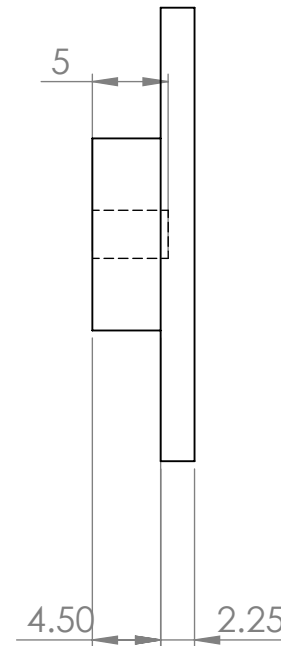
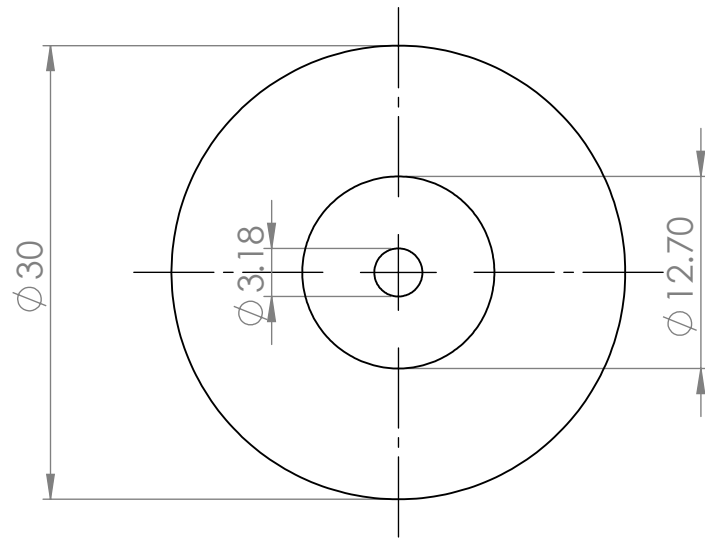
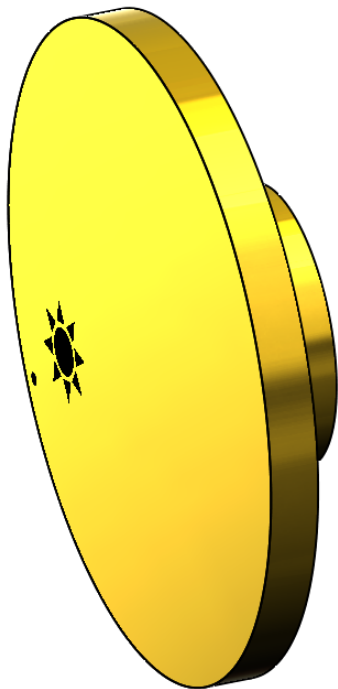
C

D

1

2





UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

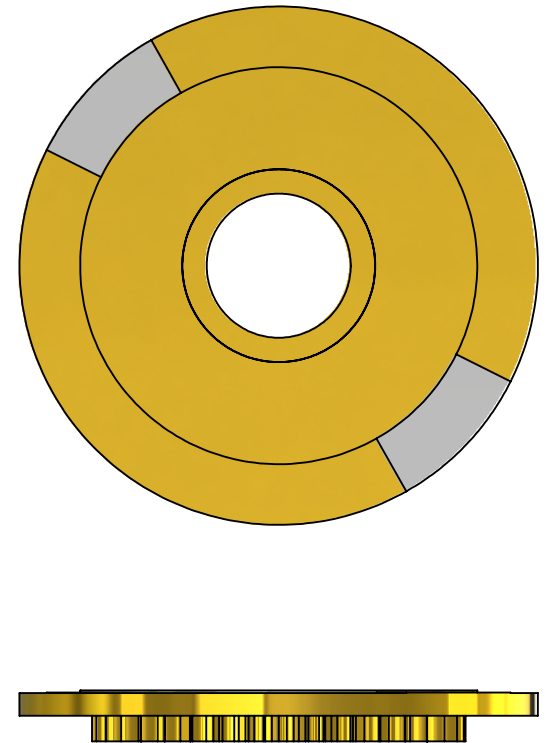
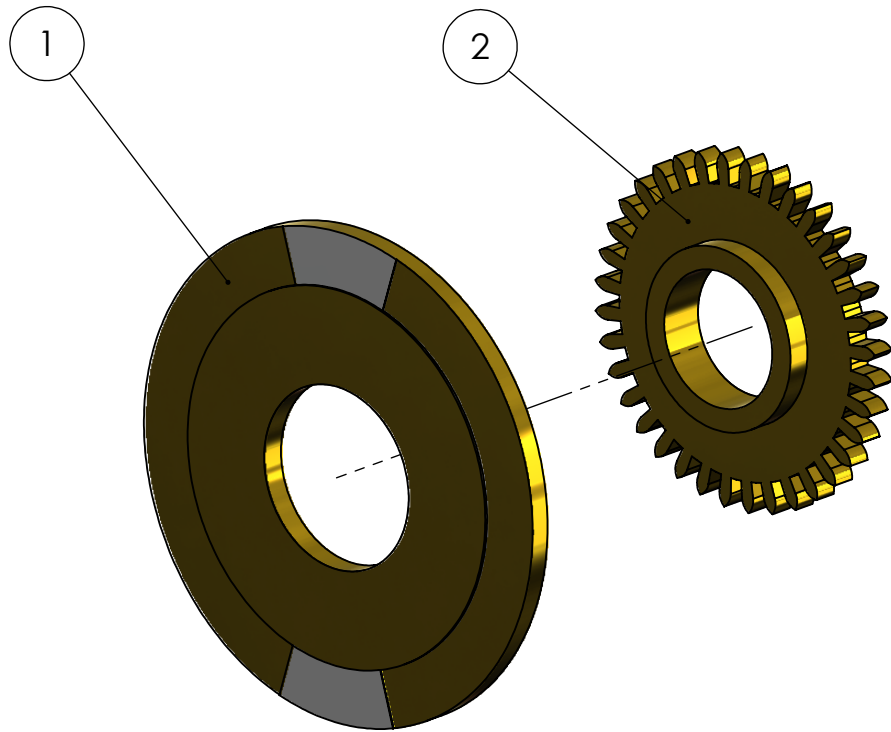
TITLE:  
**SOLAR ZODIAC DISPLAY DISC**



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A4

ITEM NO.	PART NUMBER	QTY.
1	Node Display Ring Solar	1
2	Node Display Wheel Solar	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

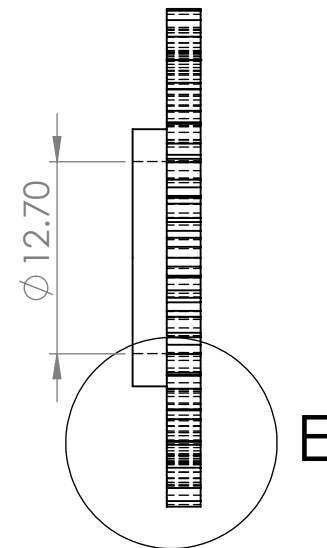
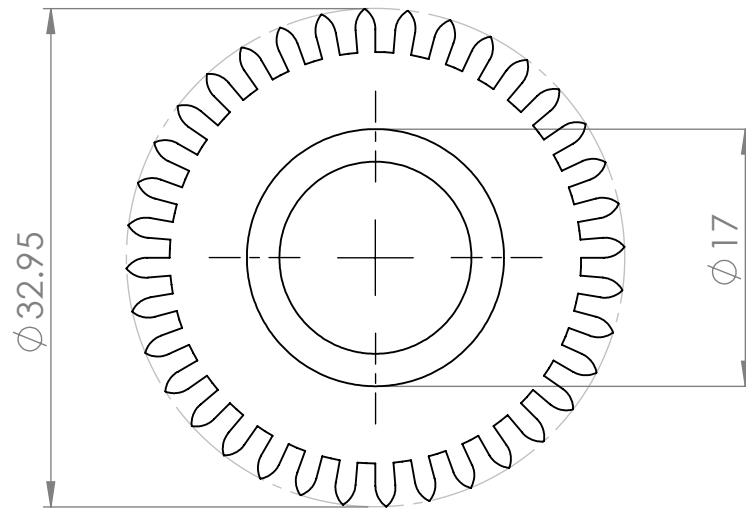
TITLE:

# NODE DISPLAY ASSEMBLY SOLAR

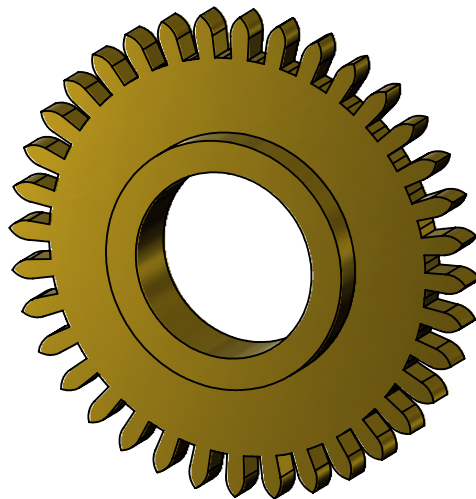


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A4



DETAIL E  
SCALE 5 : 1



NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 36
- MODULE 0.85

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

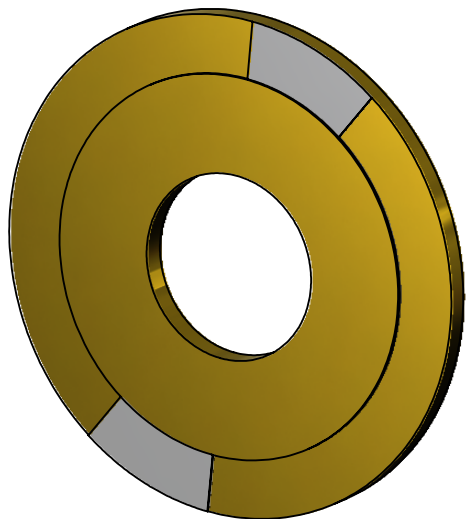
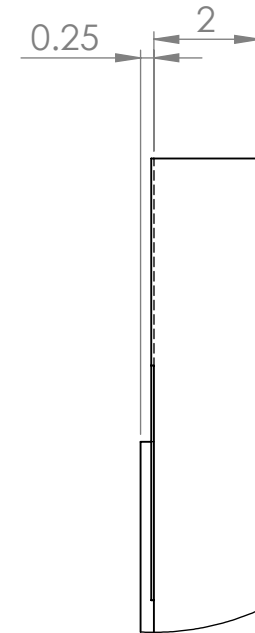
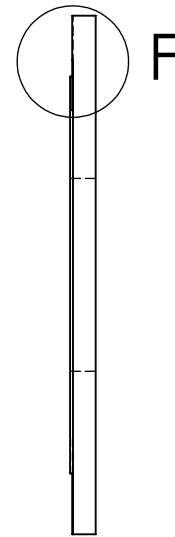
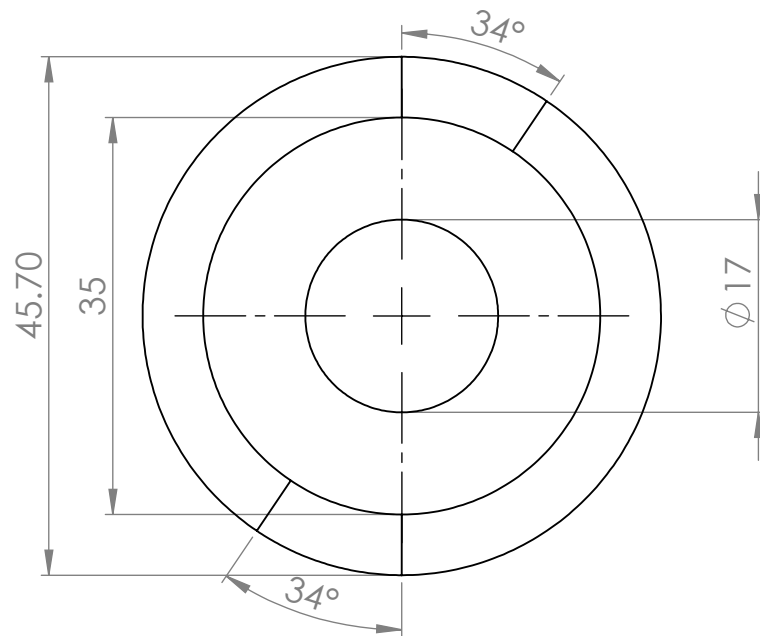
TITLE:

NODE DISPLAY WHEEL  
SOLAR



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A4



## DETAIL F SCALE 7 : 1

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:

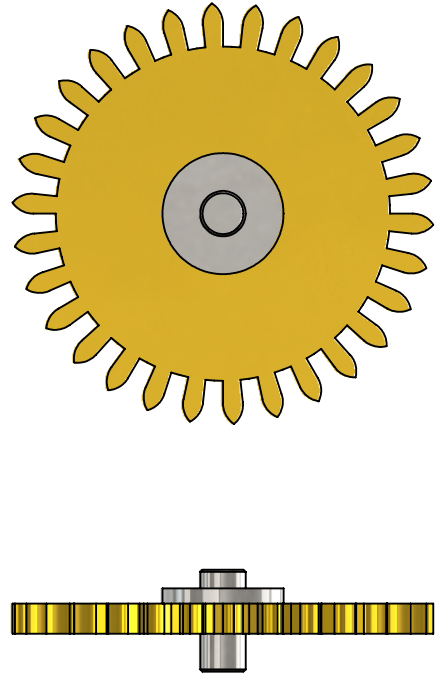
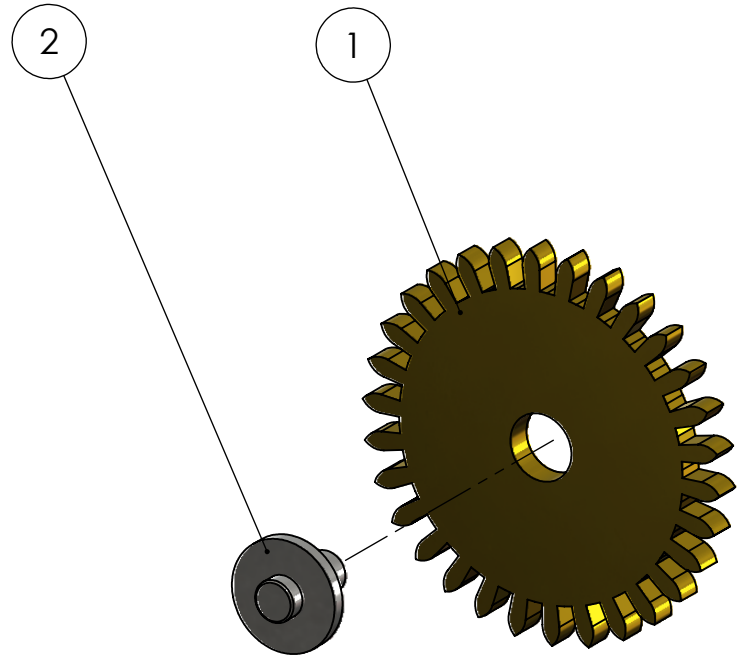
NODE DISPLAY RING  
SOLAR



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A4

ITEM NO.	PART NUMBER	QTY.
1	Eclipse Idler Wheel Small	1
2	Eclipse Idler Wheel Small Arbor	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

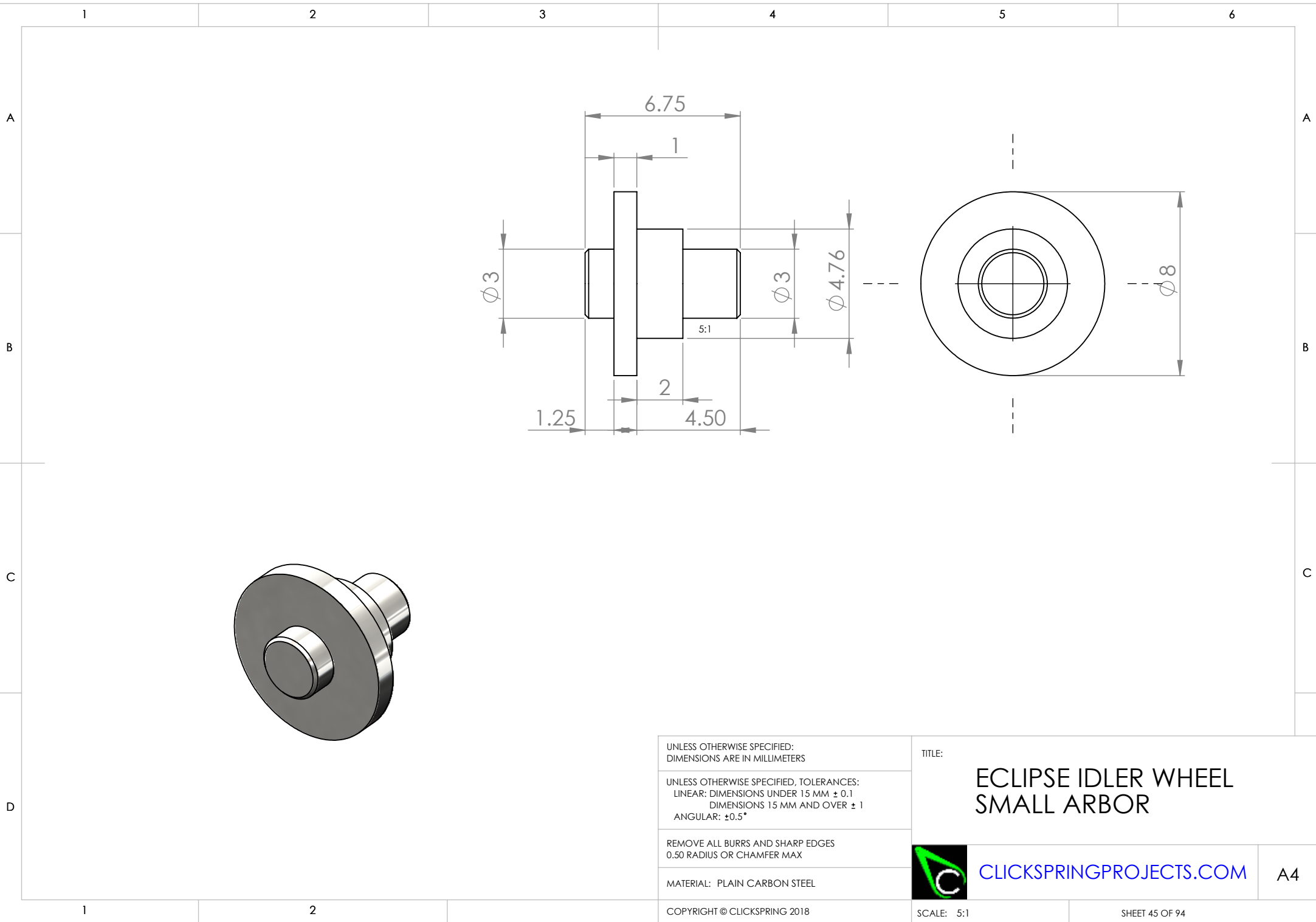
MATERIAL: BRASS, MILD STEEL

TITLE:  
**ECLIPSE IDLER WHEEL  
SMALL ASSEMBLY**



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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

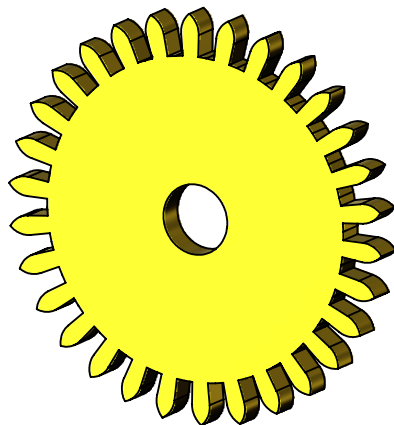
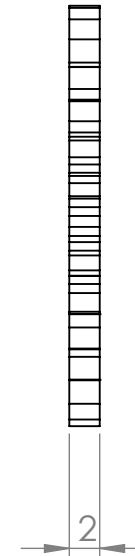
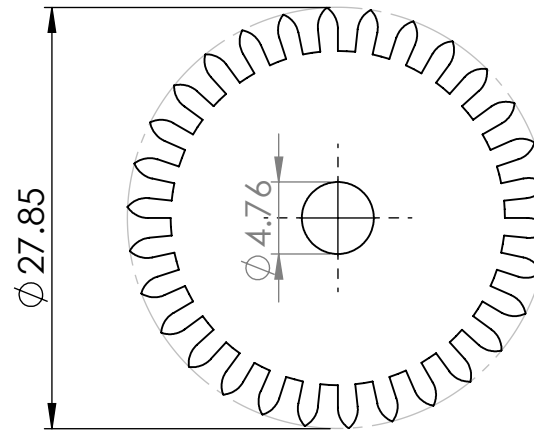
MATERIAL: PLAIN CARBON STEEL

TITLE:  
**ECLIPSE IDLER WHEEL  
SMALL ARBOR**

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NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 30
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:

ECLIPSE IDLER WHEEL  
SMALL

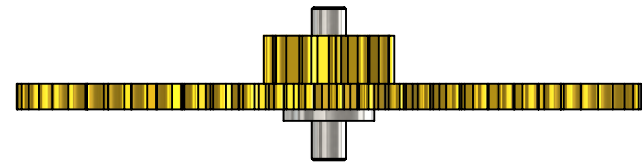
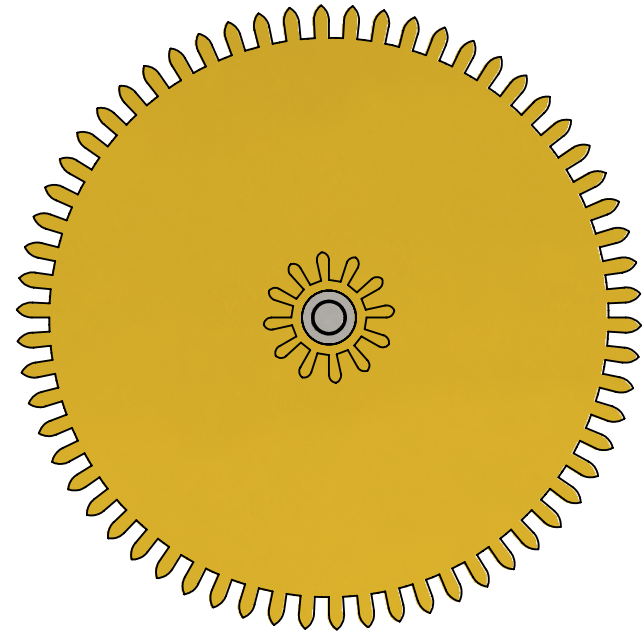
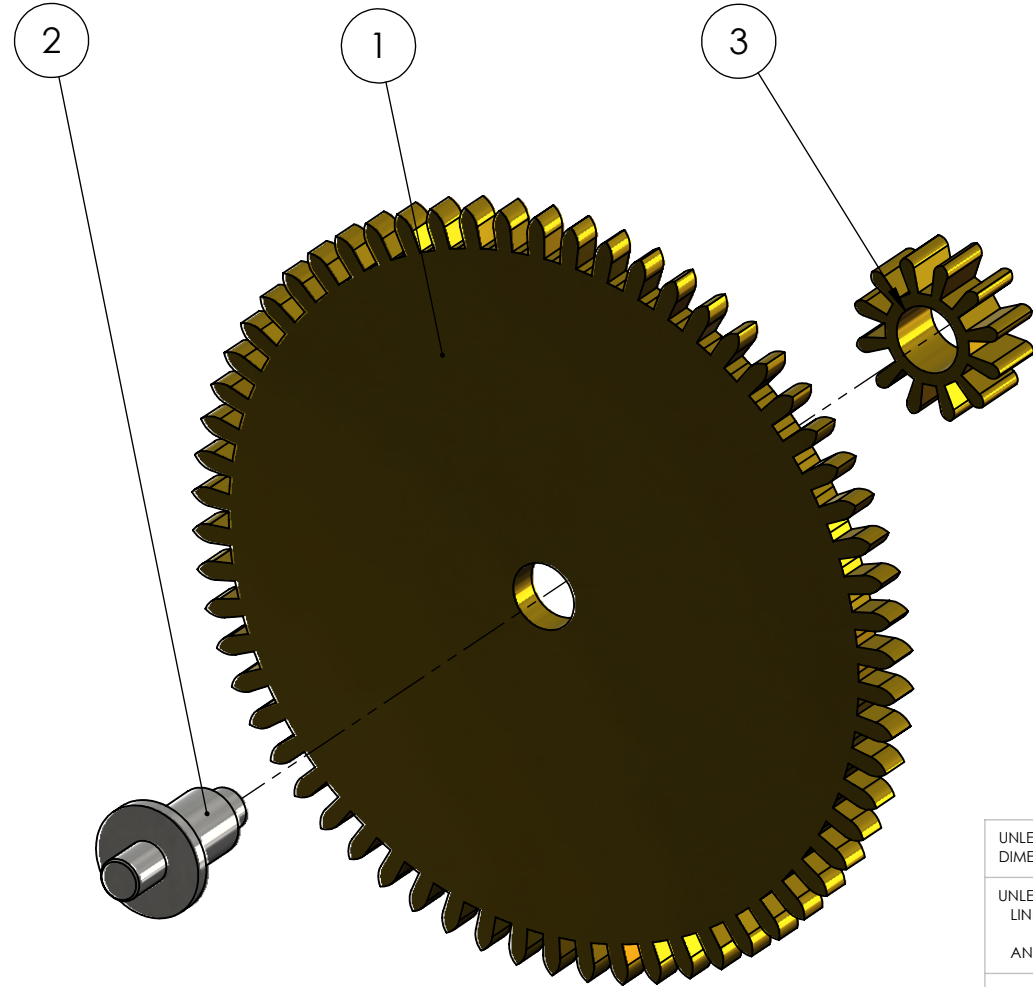


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A4



ITEM NO.	PART NUMBER	QTY.
1	Eclipse Intermediate Wheel	1
2	Eclipse Intermediate Wheel Arbor	1
3	12 Tooth Pinion	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

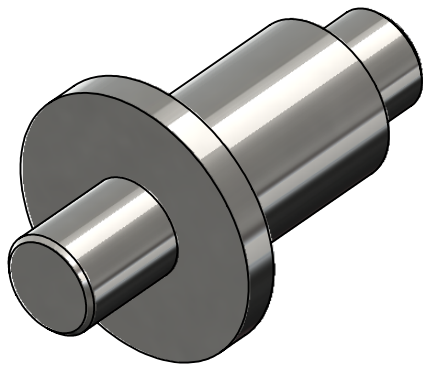
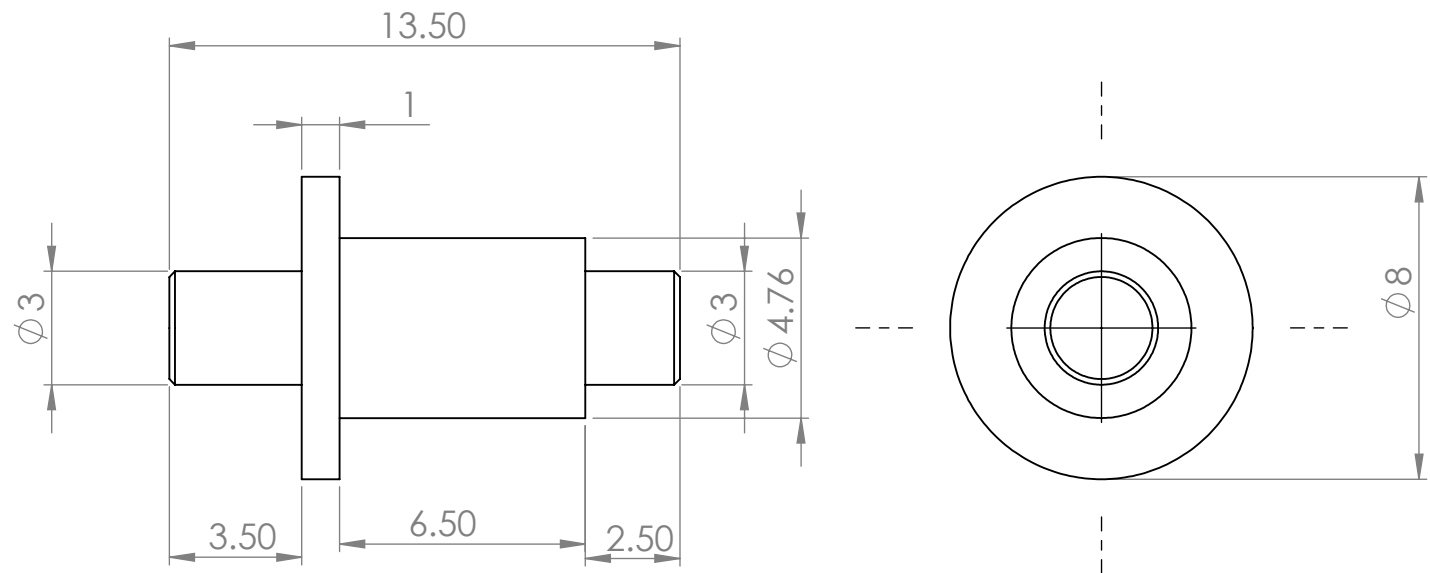
TITLE:

## ECLIPSE INTERMEDIATE WHEEL ASSEMBLY



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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

TITLE:

ECLIPSE INTERMEDIATE  
WHEEL ARBOR

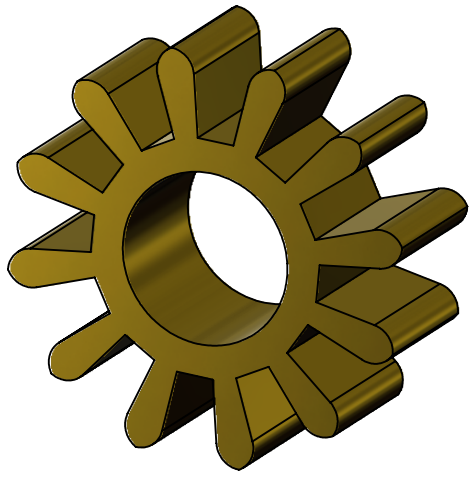
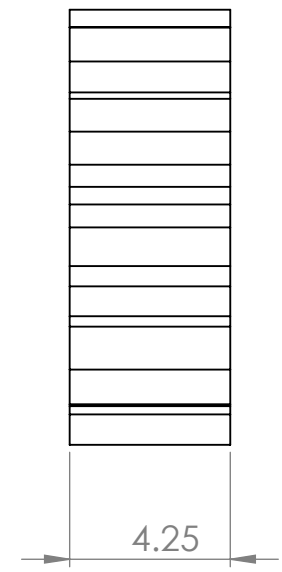
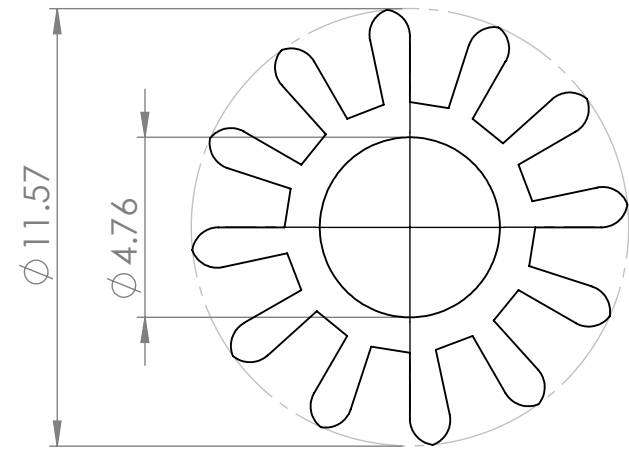


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A4

NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 12
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:  
**12 TOOTH PINION**

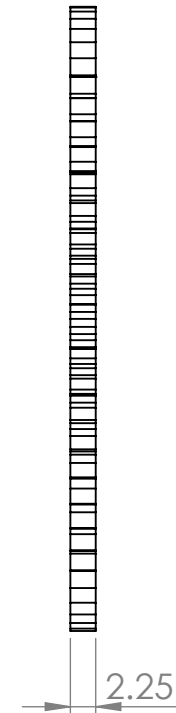
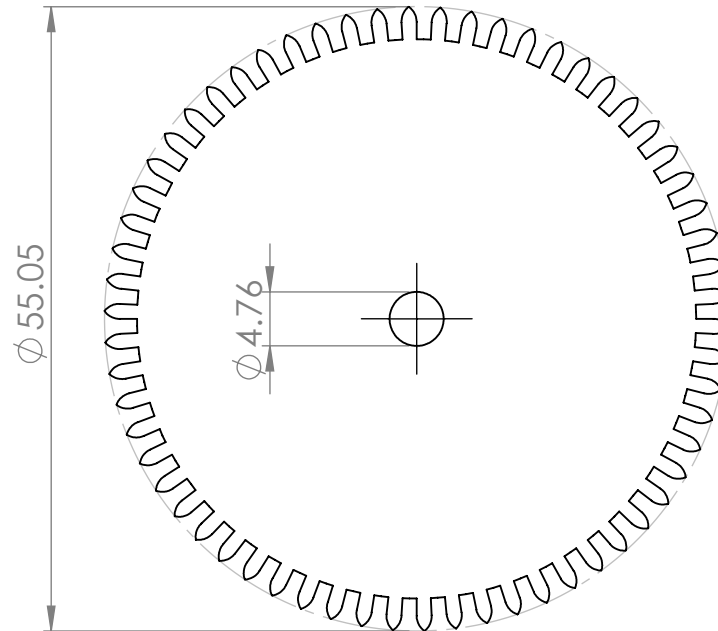
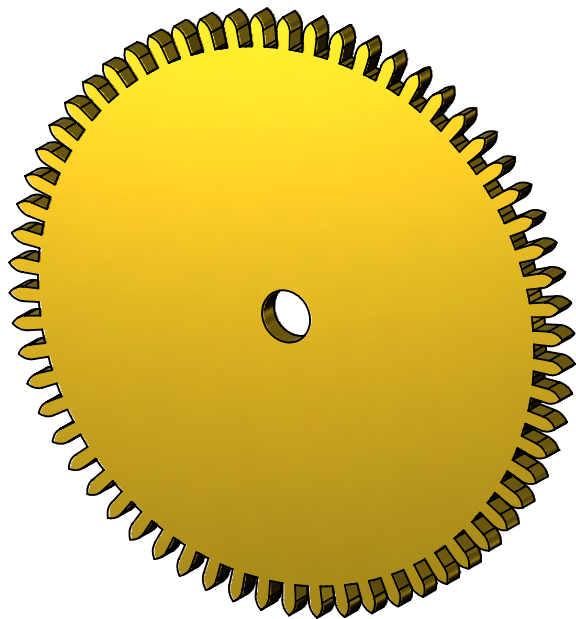


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A4

NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 62
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

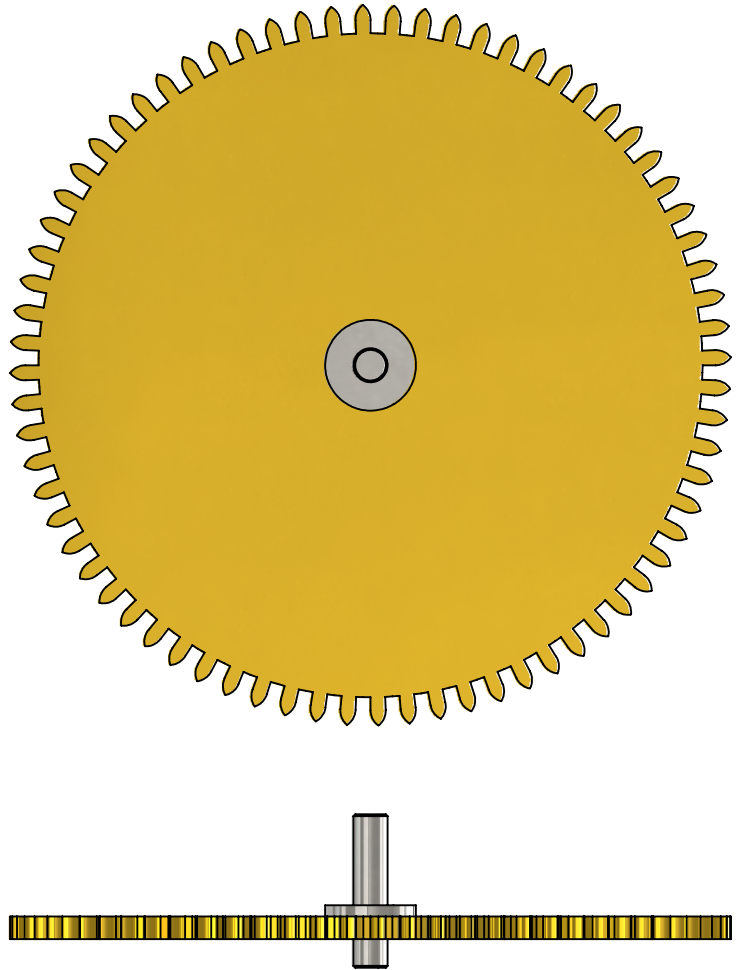
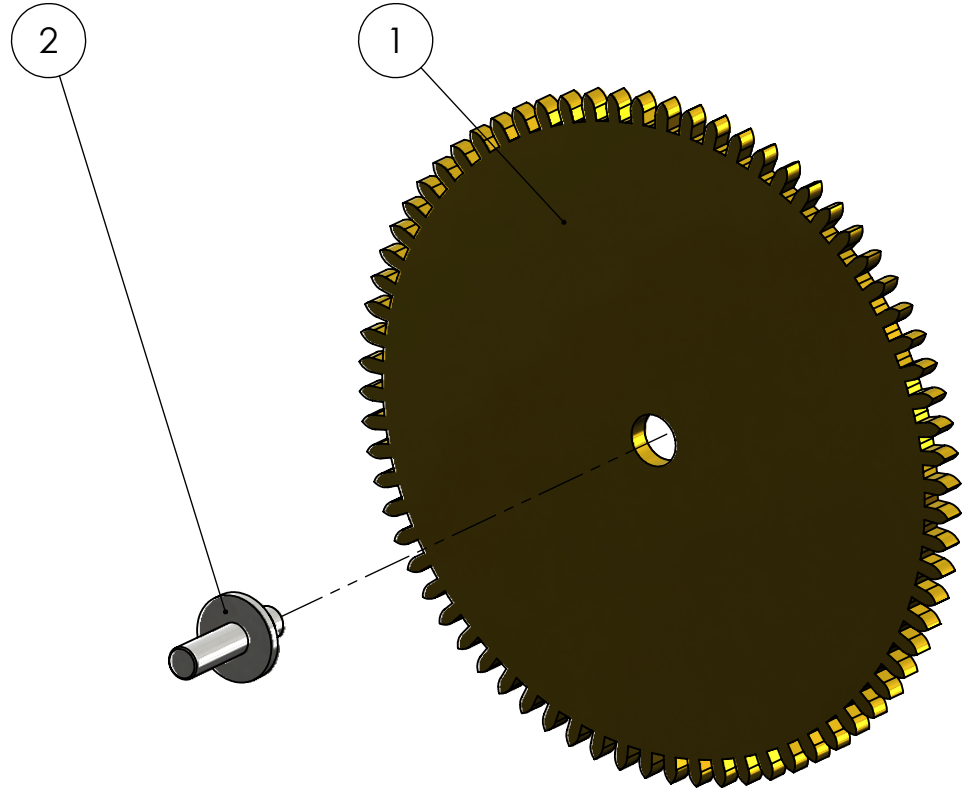
MATERIAL: BRASS

TITLE:  
**ECLIPSE INTERMEDIATE  
WHEEL**



A4

ITEM NO.	PART NUMBER	QTY.
1	Eclipse Idler Wheel	1
2	Eclipse Idler Wheel Arbor	1




UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

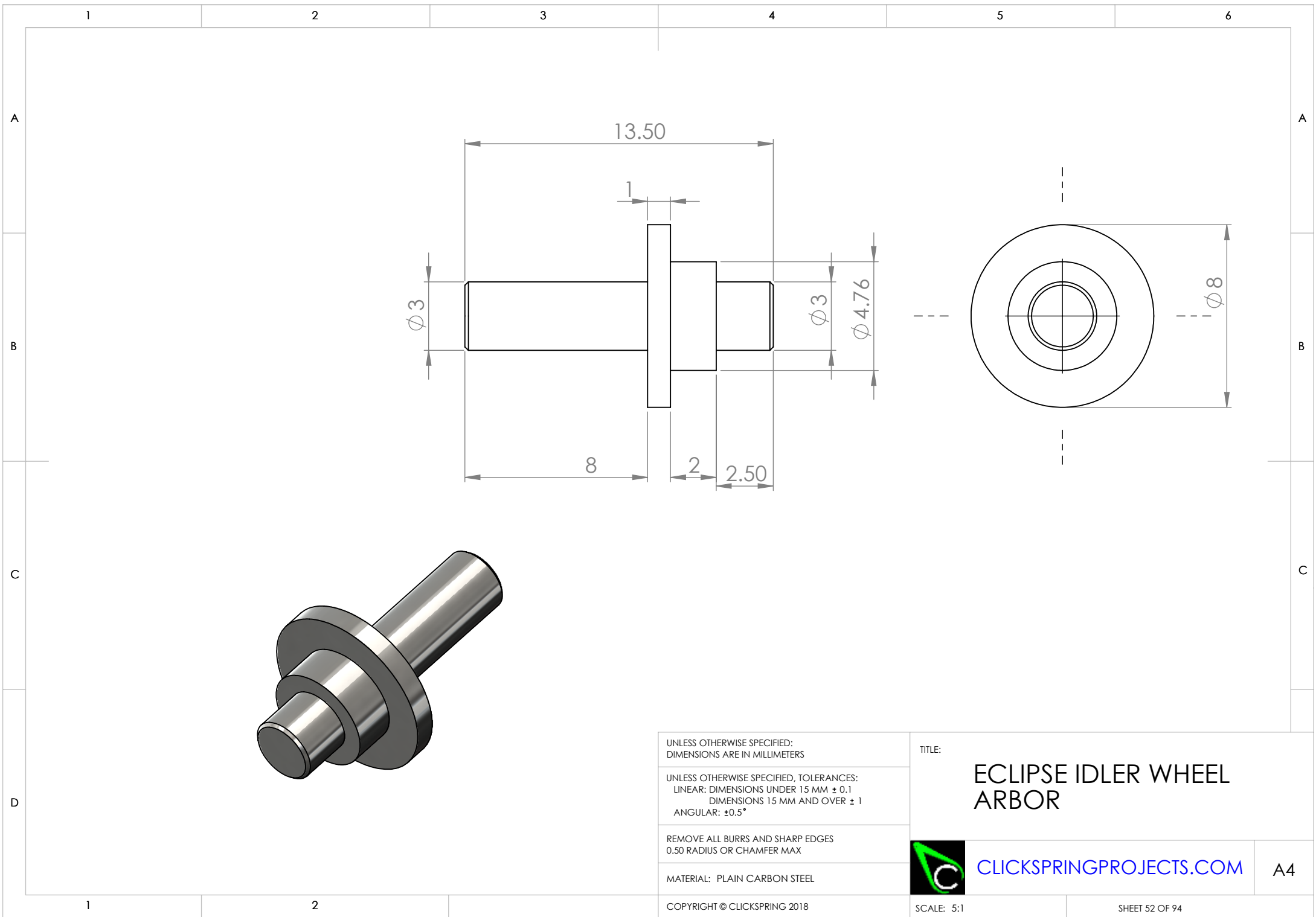
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

TITLE:  
**ECLIPSE IDLER WHEEL  
ASSEMBLY**

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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

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TITLE:  
**ECLIPSE IDLER WHEEL  
ARBOR**



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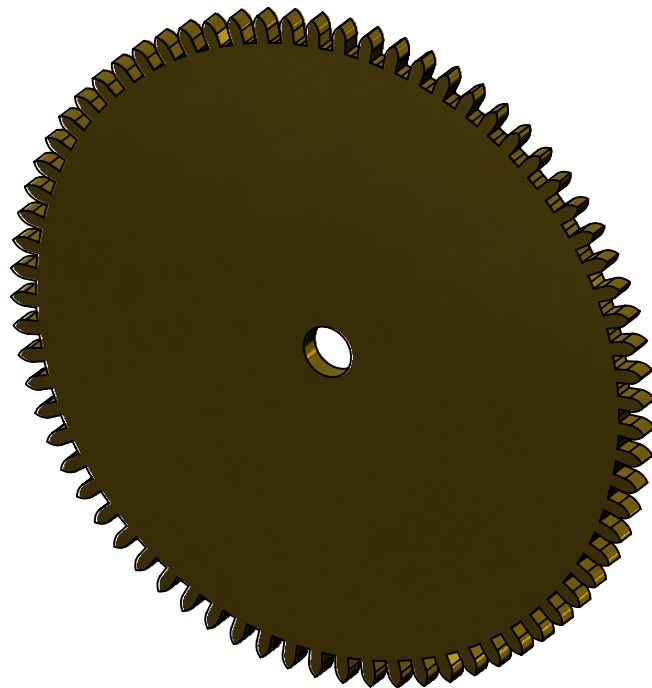
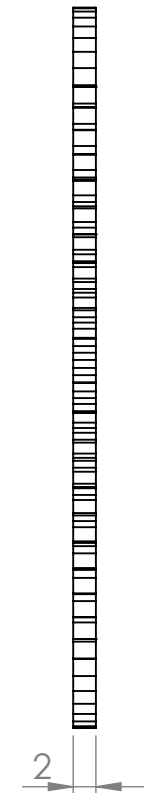
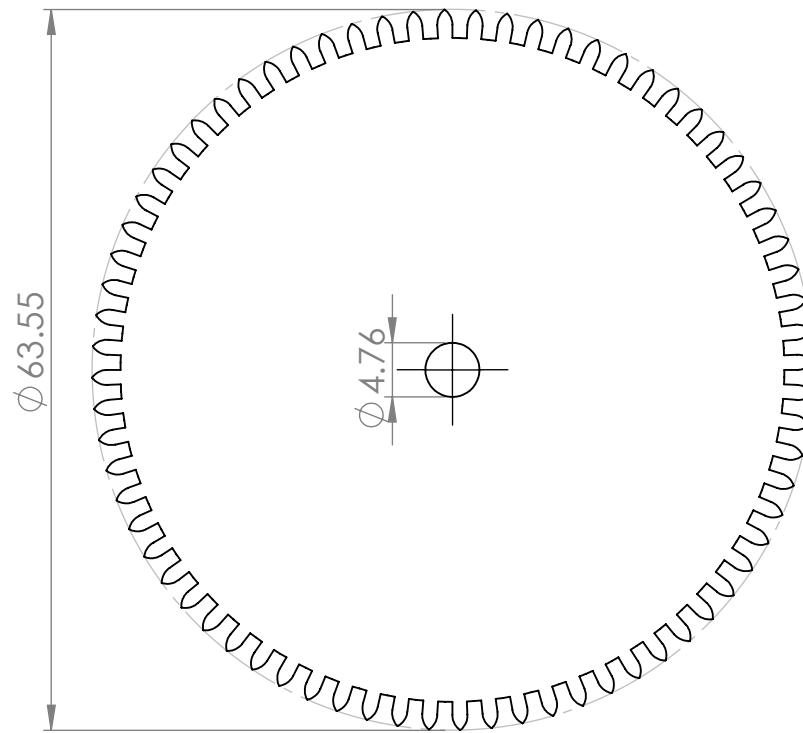
A4

SCALE: 5:1

SHEET 52 OF 94

NOTES UNLESS OTHERWISE SPECIFIED:

- TEETH NUMBER = 72
- MODULE 0.85



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

ECLIPSE IDLER WHEEL

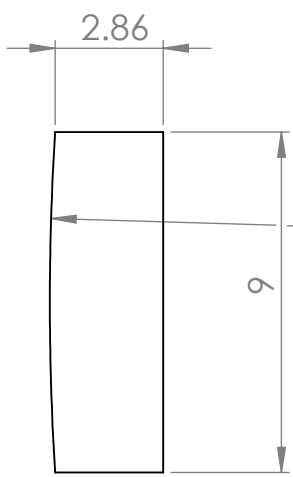
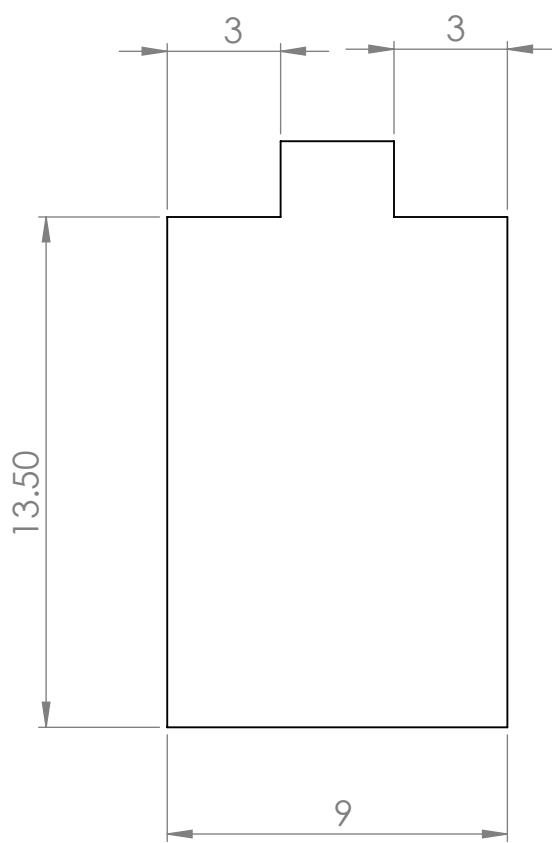
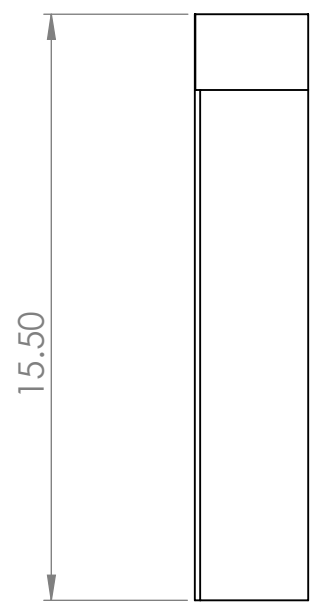


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A4

SCALE: 1.5:1

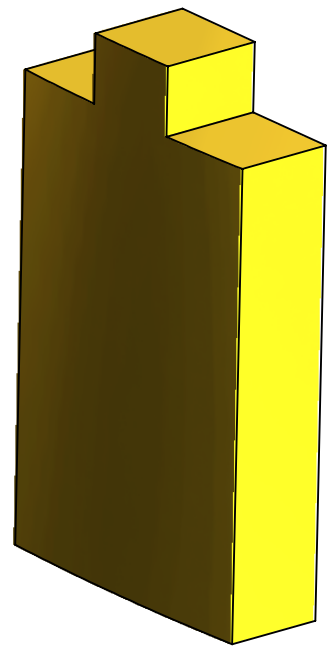
SHEET 53 OF 94



R72

NOTES UNLESS OTHERWISE SPECIFIED:

- R72 NOMINAL, APPROXIMATE FIT ACCEPTABLE



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ± 0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

TITLE:  
**DIAL PLATE SUPPORT  
WITH KEY**



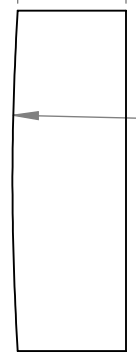
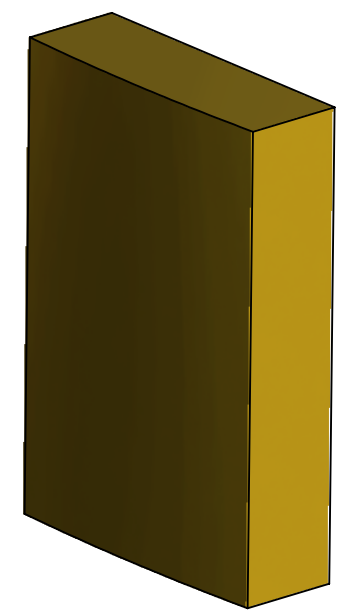
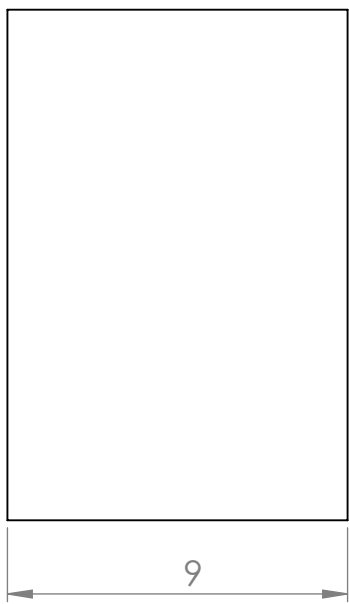
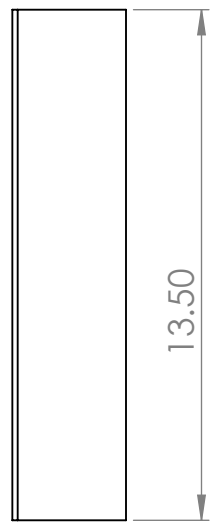
[CLICKSPRINGPROJECTS.COM](http://CLICKSPRINGPROJECTS.COM)

A4



NOTES UNLESS OTHERWISE SPECIFIED:

- R72 NOMINAL, APPROXIMATE FIT ACCEPTABLE



R72

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

DIAL PLATE SUPPORT

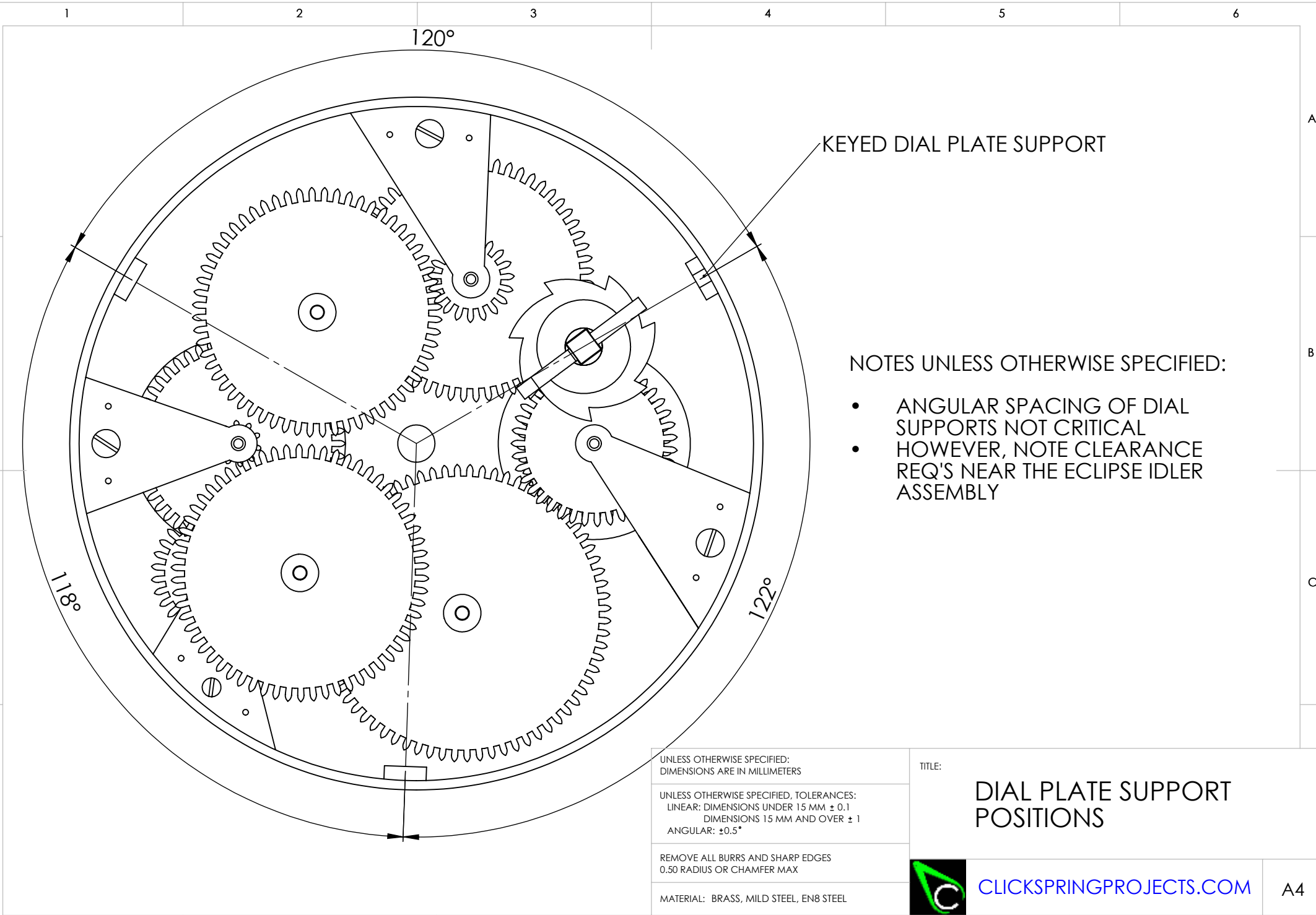


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A4

SCALE: 5:1

SHEET 55 OF 94



KEYED DIAL PLATE SUPPORT

NOTES UNLESS OTHERWISE SPECIFIED:

- ANGULAR SPACING OF DIAL SUPPORTS NOT CRITICAL
- HOWEVER, NOTE CLEARANCE REQ'S NEAR THE ECLIPSE IDLER ASSEMBLY

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL, EN8 STEEL

TITLE:

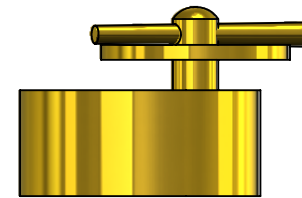
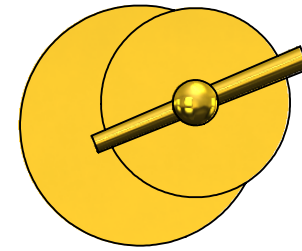
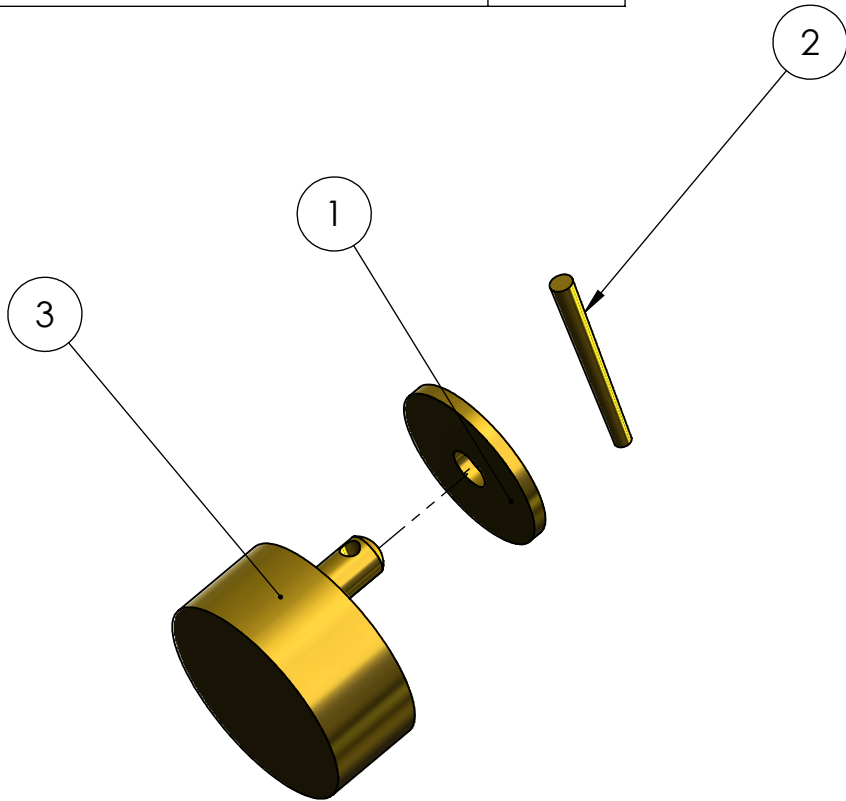
DIAL PLATE SUPPORT  
POSITIONS



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A4

ITEM NO.	PART NUMBER	QTY.
1	Spring Deselect Washer	1
2	Spring Deselect Retaining Pin	1
3	Spring Deselect	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

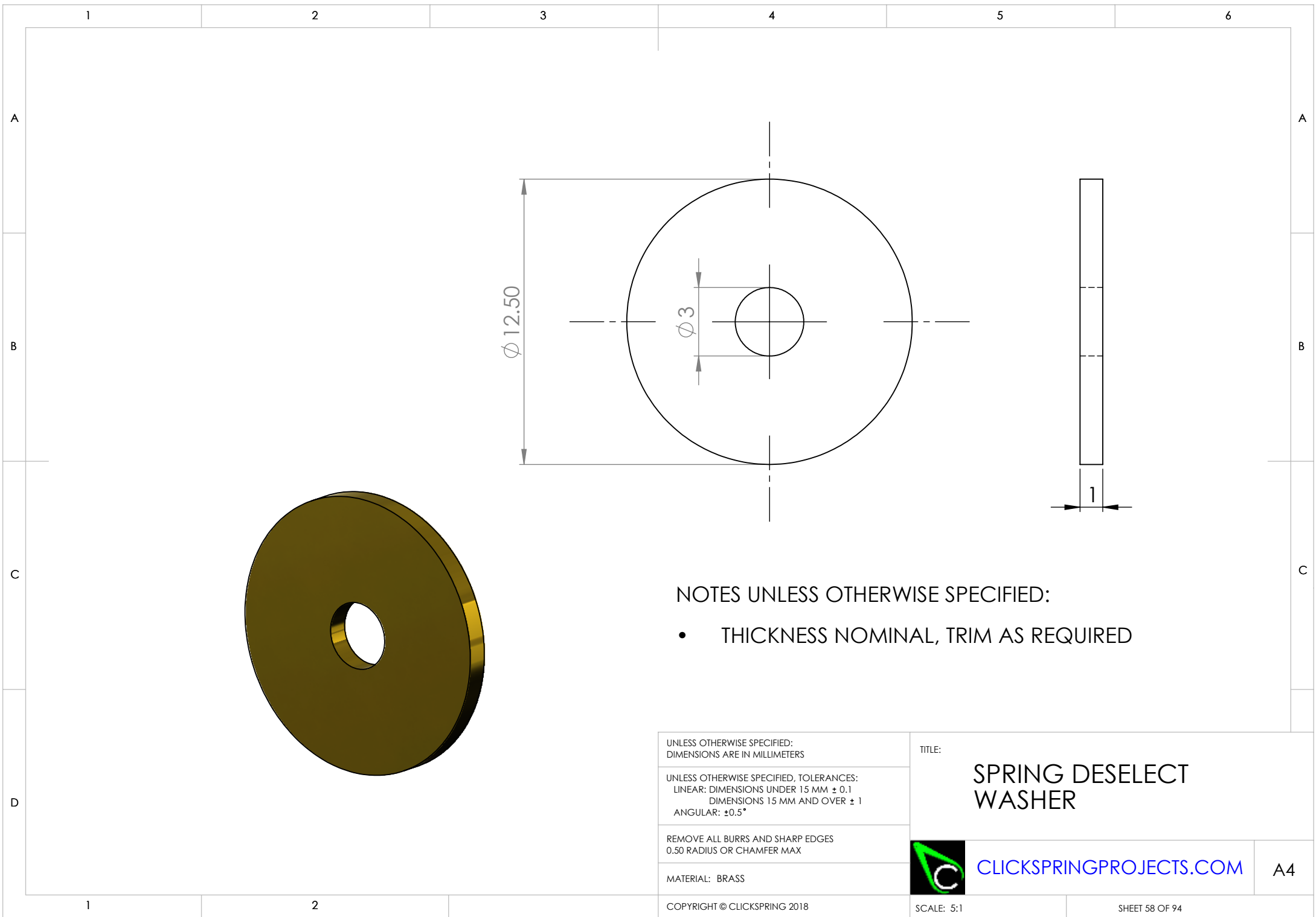
TITLE:

## SPRING DESELECT ASSEMBLY



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A4



NOTES UNLESS OTHERWISE SPECIFIED:

- THICKNESS NOMINAL, TRIM AS REQUIRED

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SPRING DESELECT  
WASHER

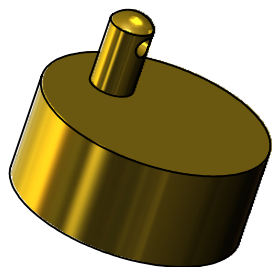
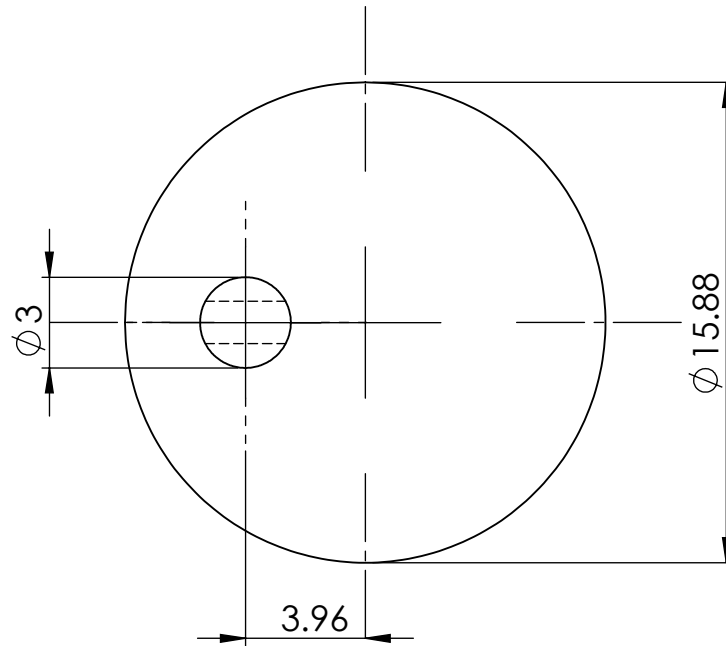
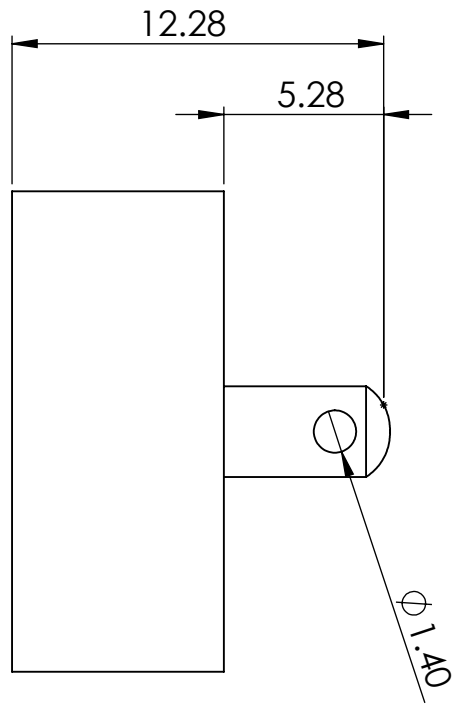


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A4

SCALE: 5:1

SHEET 58 OF 94



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SPRING DESELECT



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A4

SCALE: 4:1

SHEET 59 OF 94

1 2 3 4 5 6

A

A

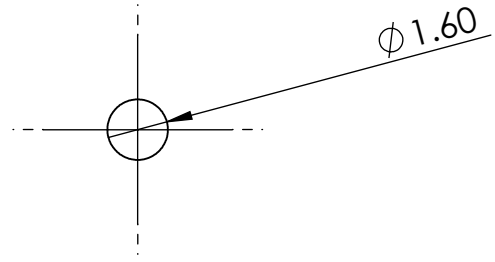
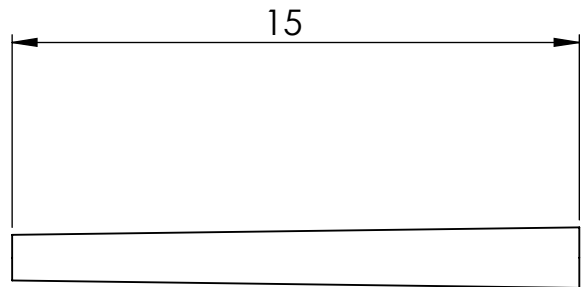
B

B

C

C

D



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

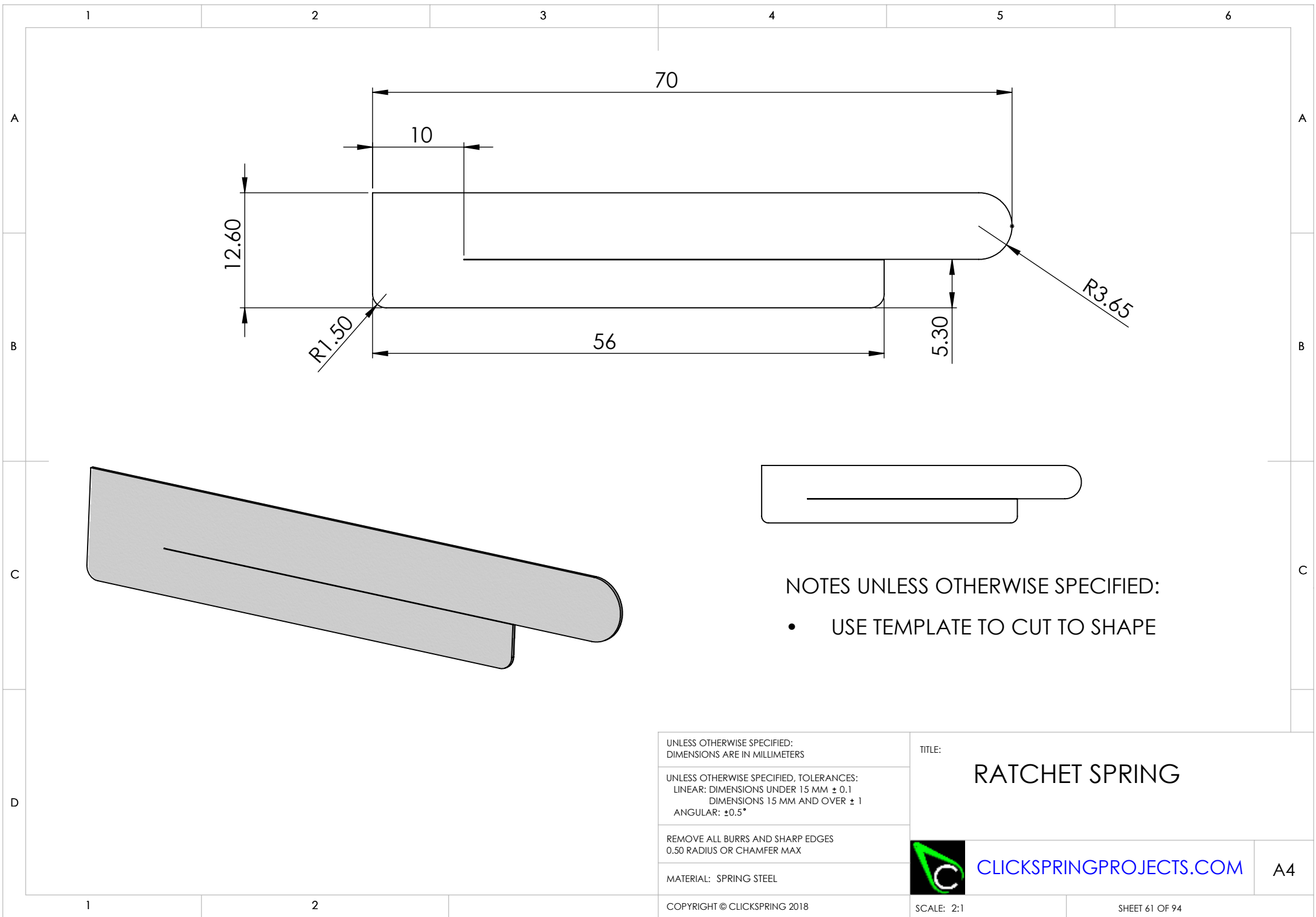
TITLE:

**SPRING DESELECT  
RETAINING PIN**



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A4

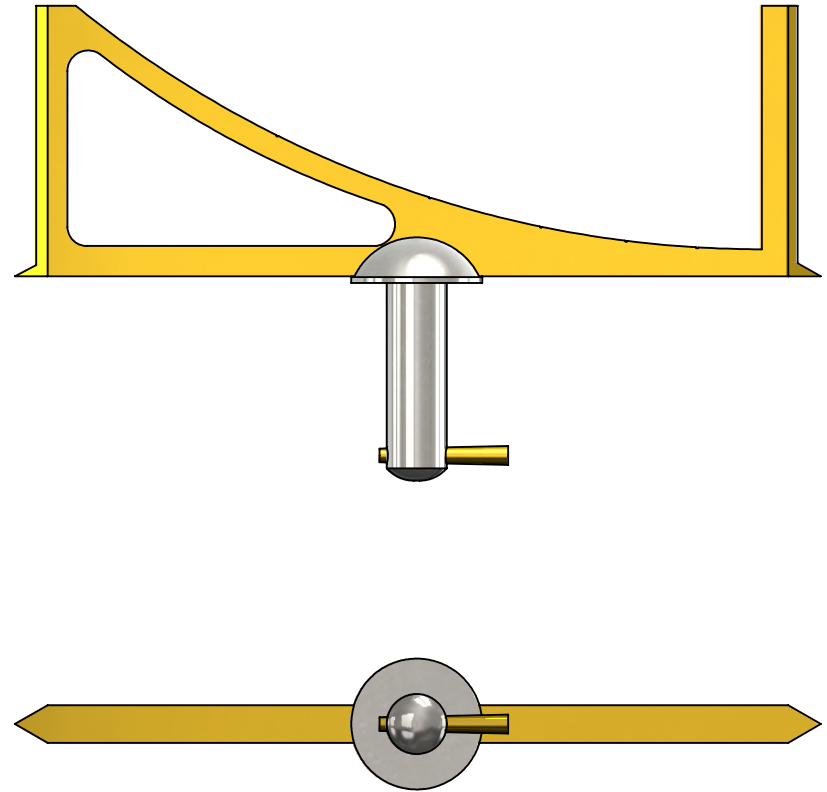
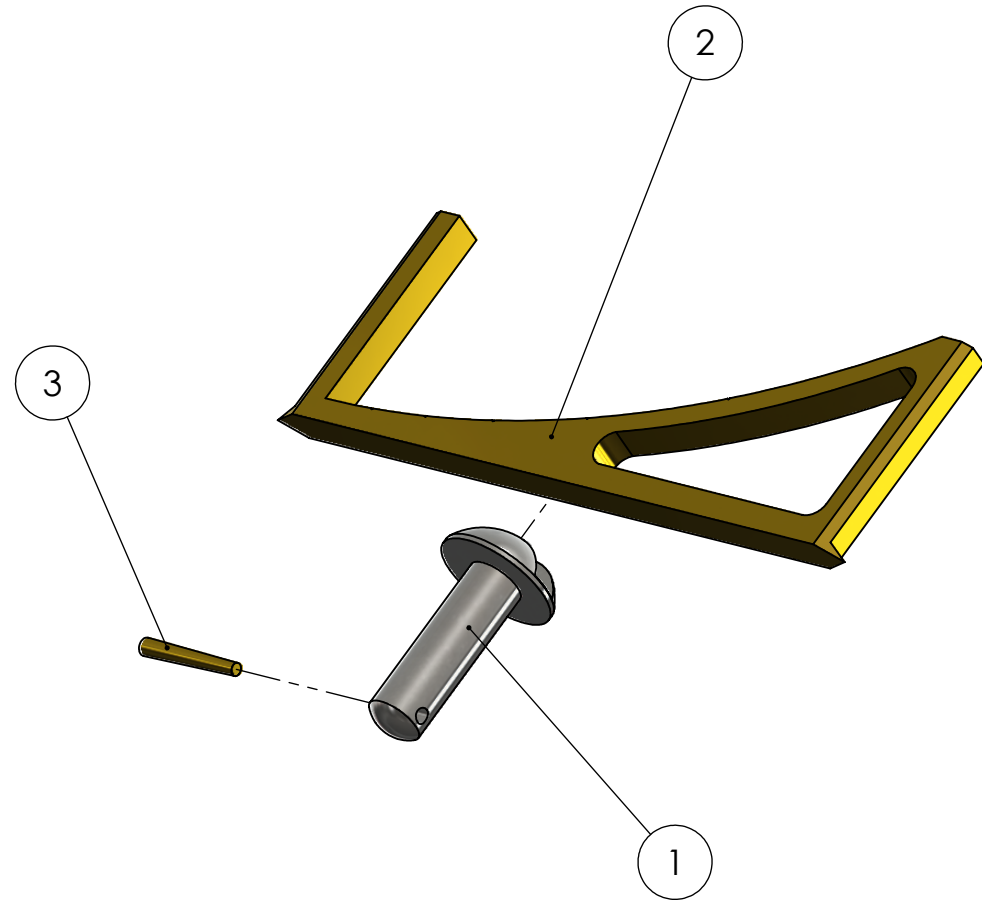


NOTES UNLESS OTHERWISE SPECIFIED:

- USE TEMPLATE TO CUT TO SHAPE

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	TITLE: <b>RATCHET SPRING</b>	
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM ± 0.1 DIMENSIONS 15 MM AND OVER ± 1 ANGULAR: ±0.5°		
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX		
MATERIAL: SPRING STEEL		<a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>
COPYRIGHT © CLICKSPRING 2018	SCALE: 2:1	SHEET 61 OF 94

ITEM NO.	PART NUMBER	QTY.
1	Gnomon Pin	1
2	Gnomon	1
3	Suspension Arm Retaining Pin	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL

TITLE:

## GNOMON ASSEMBLY



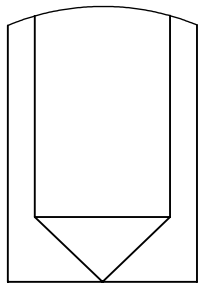
[CLICKSPRINGPROJECTS.COM](http://CLICKSPRINGPROJECTS.COM)

A4

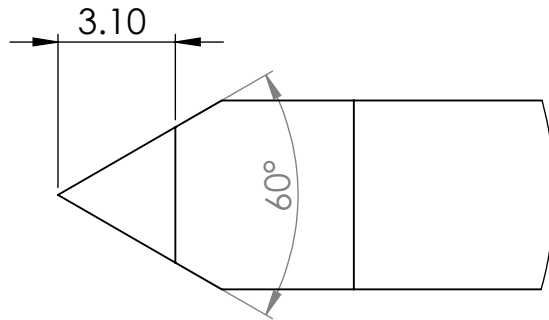


A

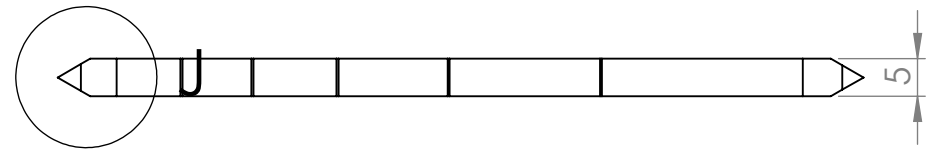
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DETAIL H  
SCALE 5 : 1



DETAIL J  
SCALE 5 : 1

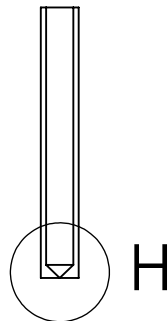


NOTES UNLESS OTHERWISE SPECIFIED:

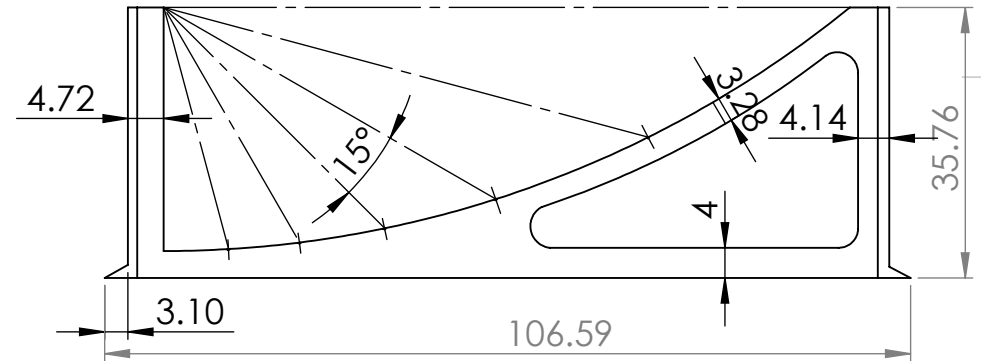
- USE PROFILE AS CUTTING/FILING TEMPLATE

B

B

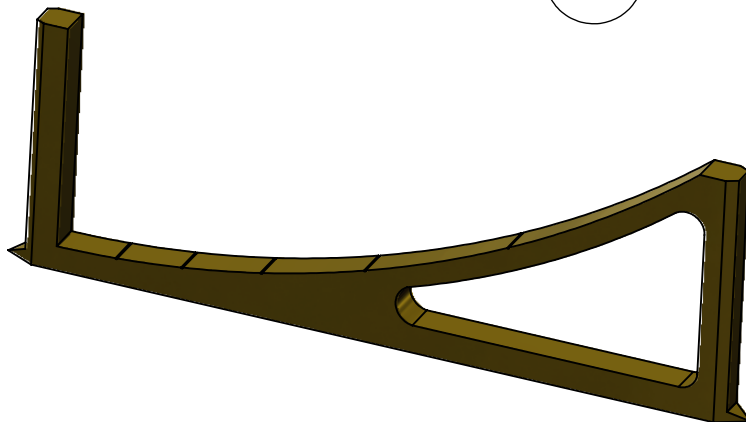


H



C

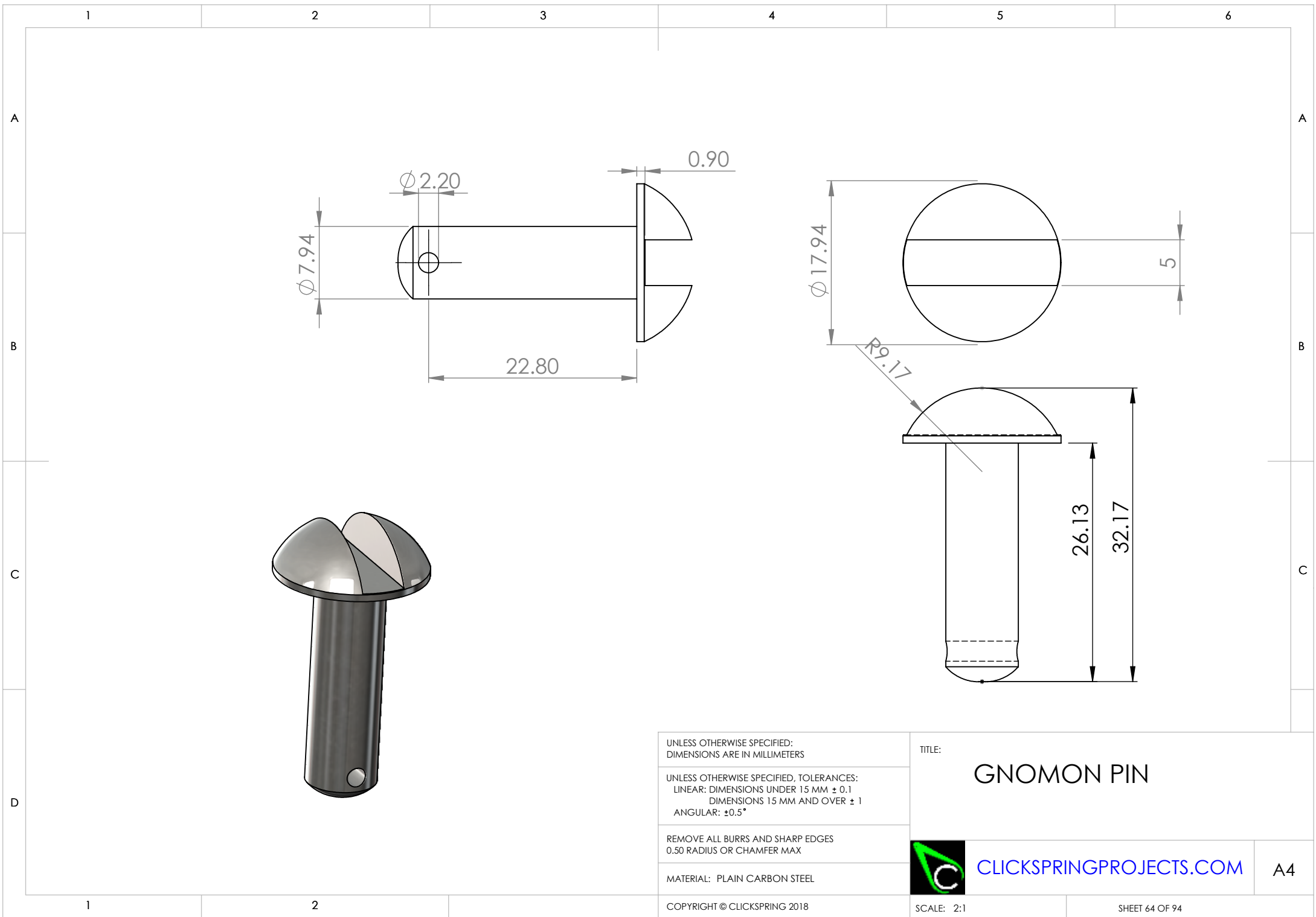
C



D

D

<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS</p>	<p>TITLE: <b>GNOMON</b></p>		
<p>UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM ± 0.1 DIMENSIONS 15 MM AND OVER ± 1 ANGULAR: ±0.5°</p>			
<p>REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX</p>			
<p>MATERIAL: BRASS</p>		<p><a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a></p>	
<p>COPYRIGHT © CLICKSPRING 2018</p>			<p>SCALE: 1:1</p>
<p>COPYRIGHT © CLICKSPRING 2018</p>		<p>SCALE: 1:1</p>	<p>SHEET 63 OF 94</p>



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

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TITLE:  
**GNOMON PIN**



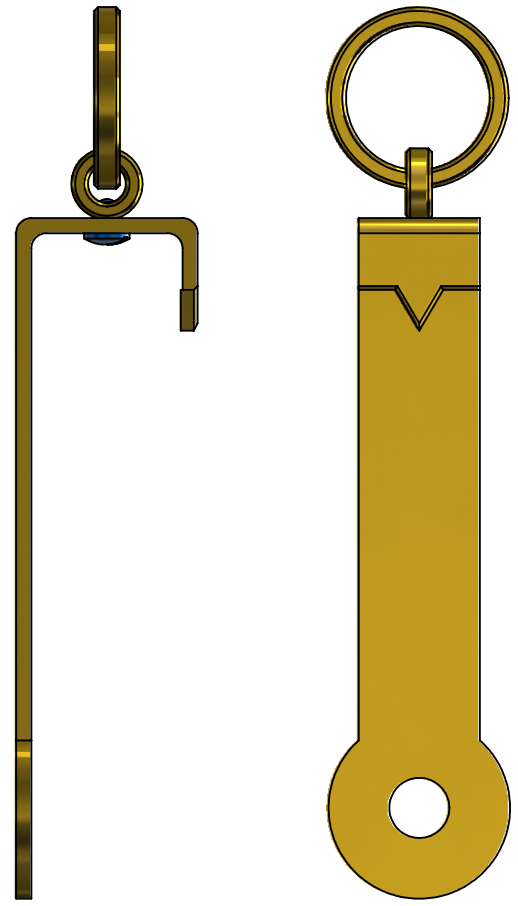
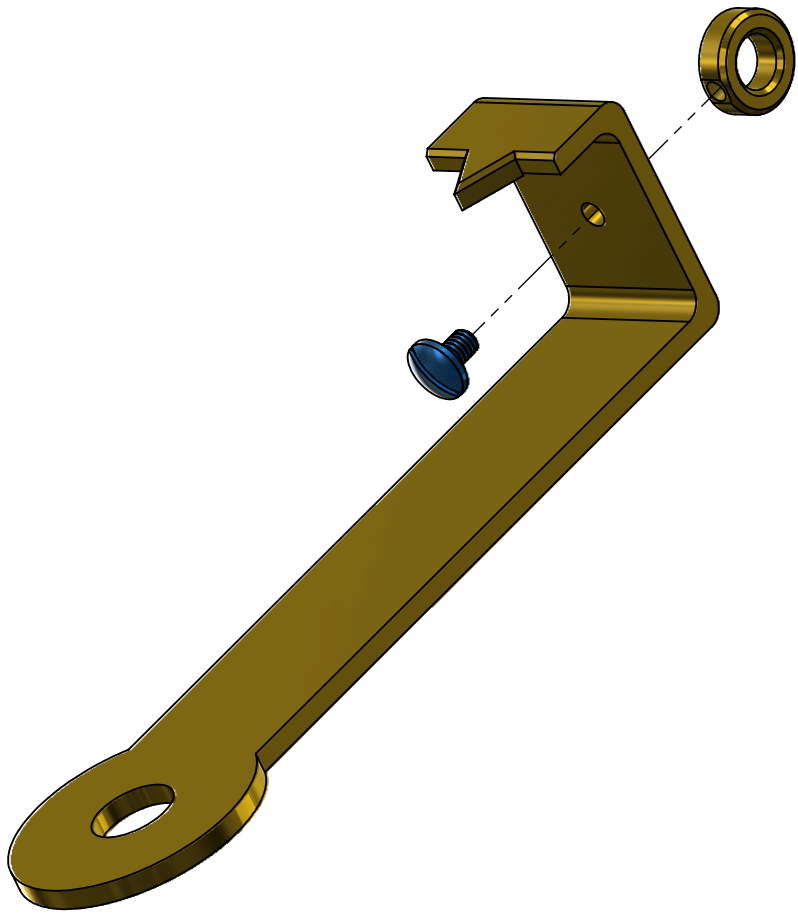
[CLICKSPRINGPROJECTS.COM](http://CLICKSPRINGPROJECTS.COM)

A4

SCALE: 2:1

SHEET 64 OF 94

ITEM NO.	PART NUMBER	QTY.
1	Suspension Arm	1
2	Screw Suspension Arm	1
3	Suspension Arm Eye	1
4	Suspension Arm Ring	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

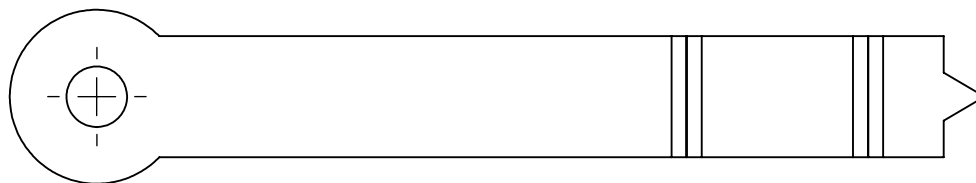
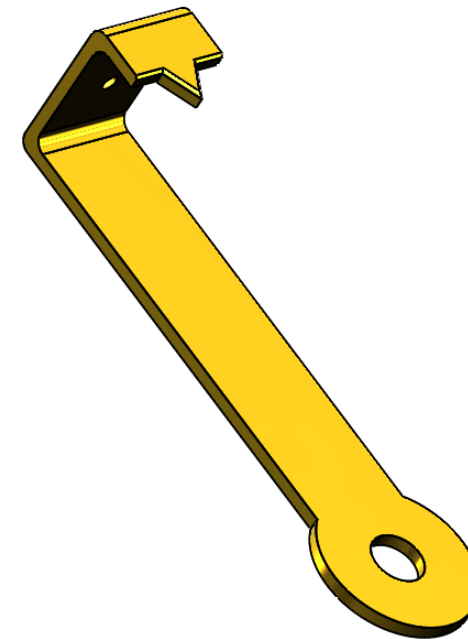
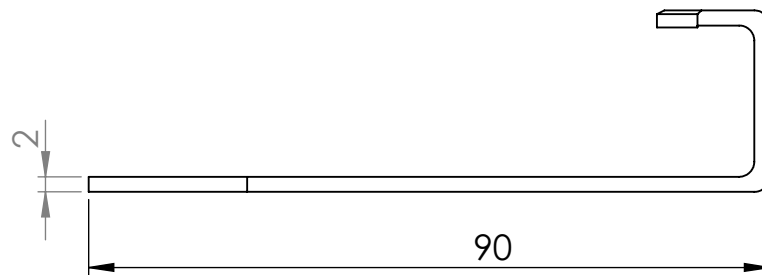
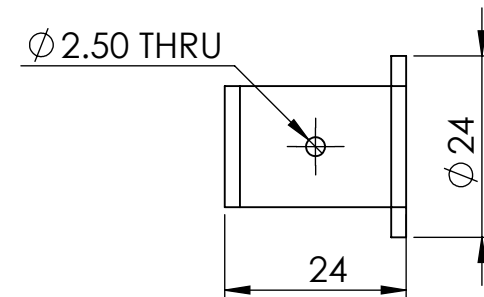
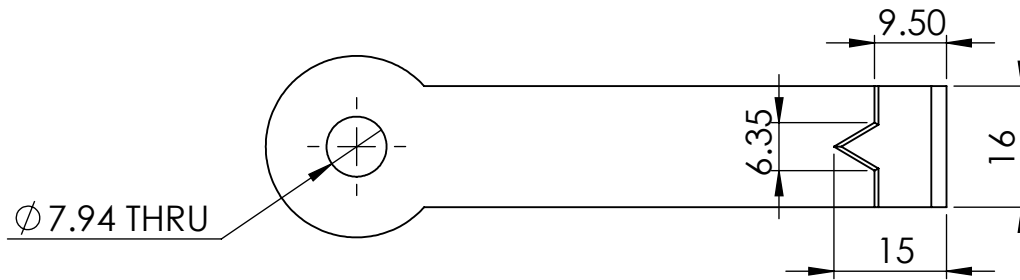
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, EN8 STEEL

TITLE:  
**SUSPENSION ARM  
ASSEMBLY**

 [CLICKSPRINGPROJECTS.COM](http://CLICKSPRINGPROJECTS.COM)



NOTES UNLESS OTHERWISE SPECIFIED:

- USE TEMPLATE TO FILE TO SHAPE

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

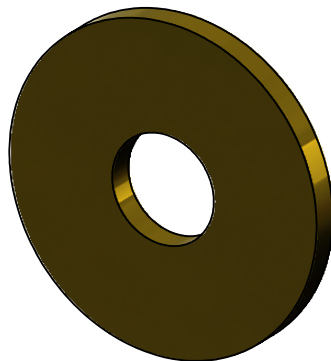
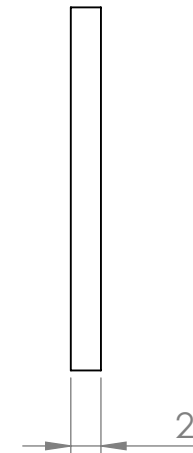
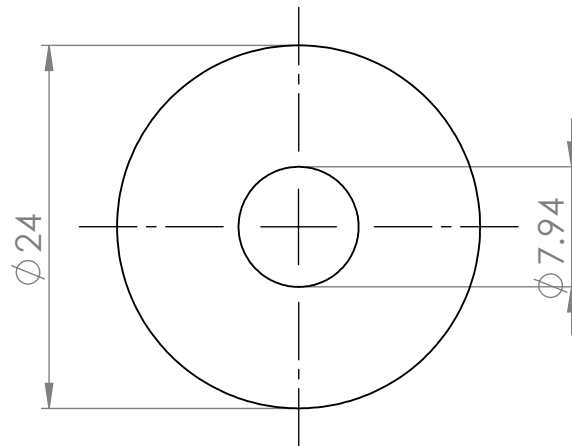
TITLE:

SUSPENSION ARM



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A4



NOTES UNLESS OTHERWISE SPECIFIED:

- THICKNESS NOMINAL, TRIM AS REQUIRED

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

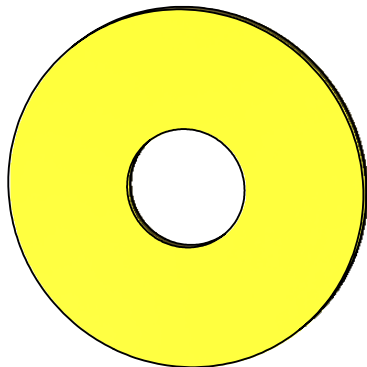
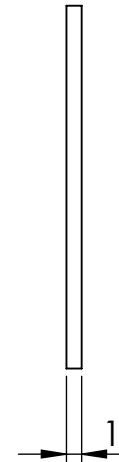
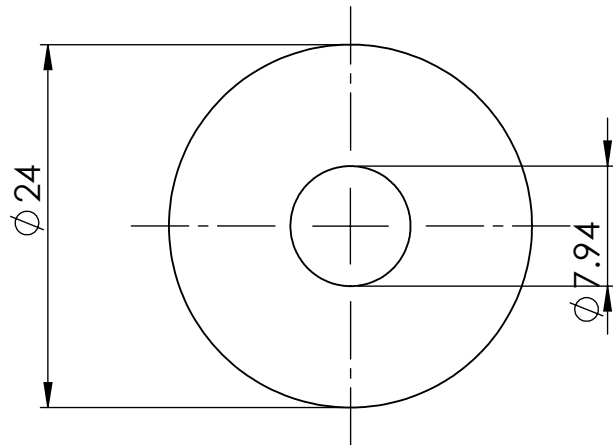
TITLE:

SUSPENSION ARM  
WASHER



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A4



NOTES UNLESS OTHERWISE SPECIFIED:

- THICKNESS NOMINAL, TRIM AS REQUIRED

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SUSPENSION ARM  
WASHER THIN

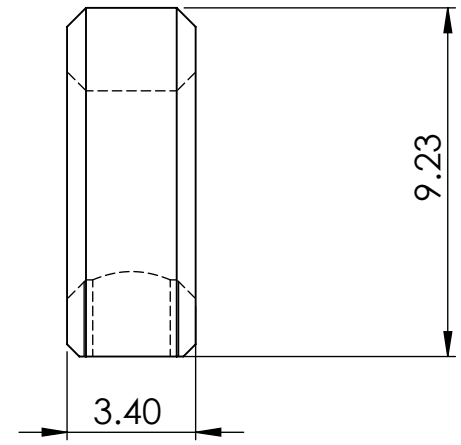
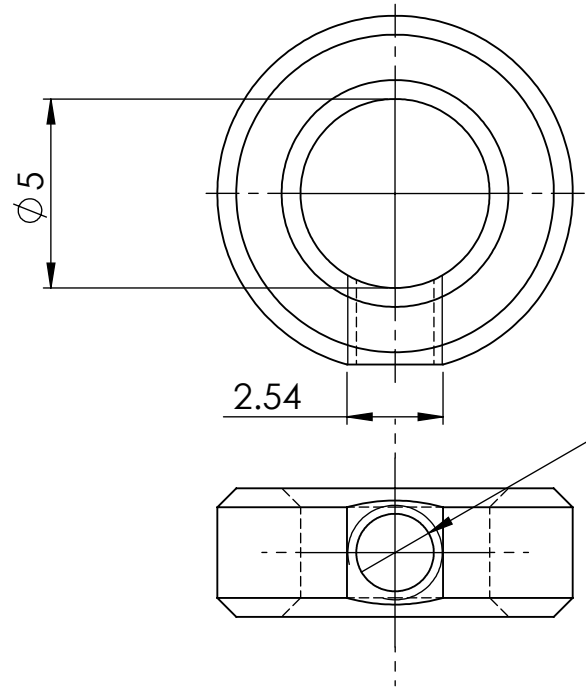


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A4

SCALE: 2:1

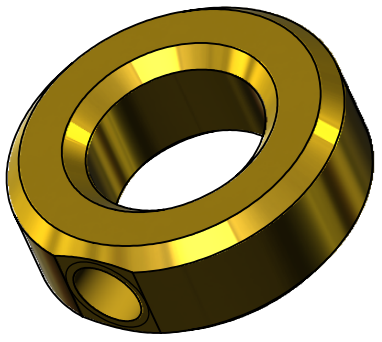
SHEET 68 OF 94



$\phi 2.05$  THRU  
M2.5x0.45 - 6H THRU

NOTES UNLESS OTHERWISE SPECIFIED:

1. METRIC THREAD DEPICTED, 7BA EQUIVALENT
2. SEATING FLAT NOMINAL, FILE AS DESIRED

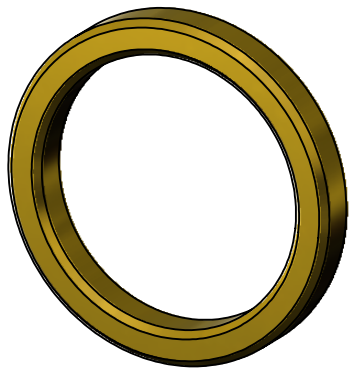
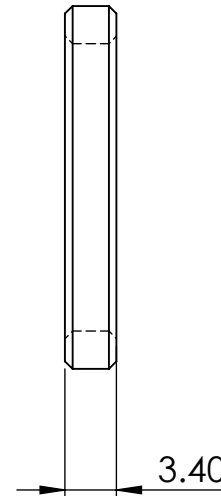
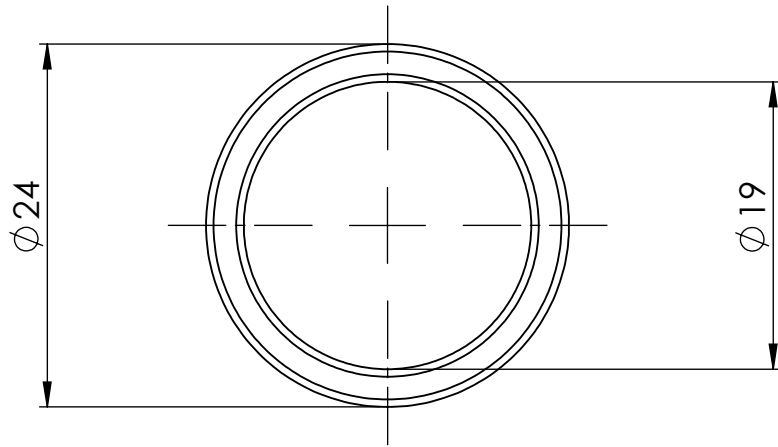


UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	TITLE:
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM $\pm 0.1$ DIMENSIONS 15 MM AND OVER $\pm 1$ ANGULAR: $\pm 0.5^\circ$	SUSPENSION ARM EYELET
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX	
MATERIAL: BRASS	



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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SUSPENSION ARM RING



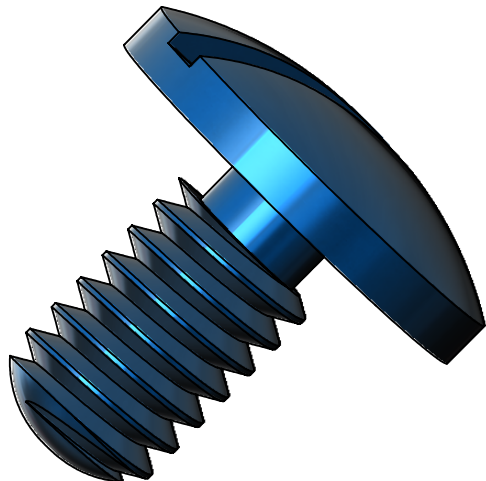
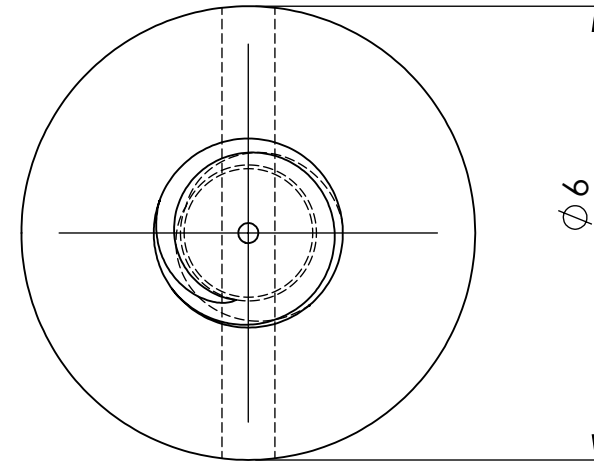
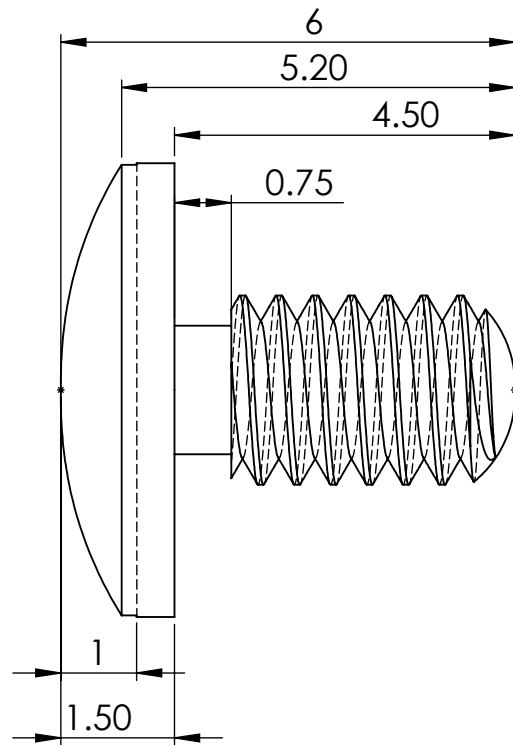
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A4

SCALE: 2:1

SHEET 70 OF 94





NOTES UNLESS OTHERWISE SPECIFIED:

1. THREAD 7BA OR M2.5X0.45 AS DESIRED

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

TITLE:

SUSPENSION ARM SCREW



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A4

1 2 3 4 5 6

A

A

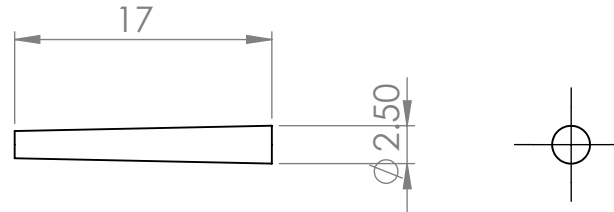
B

B

C

C

D



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

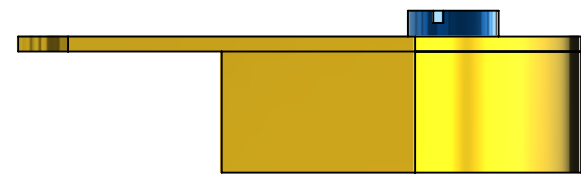
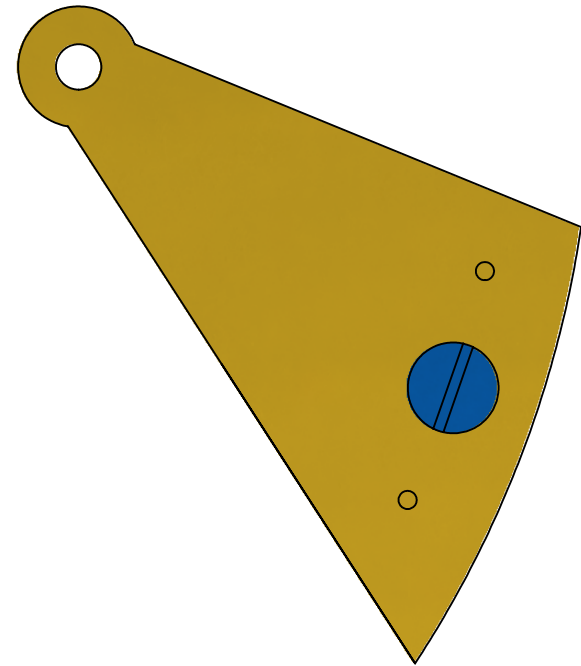
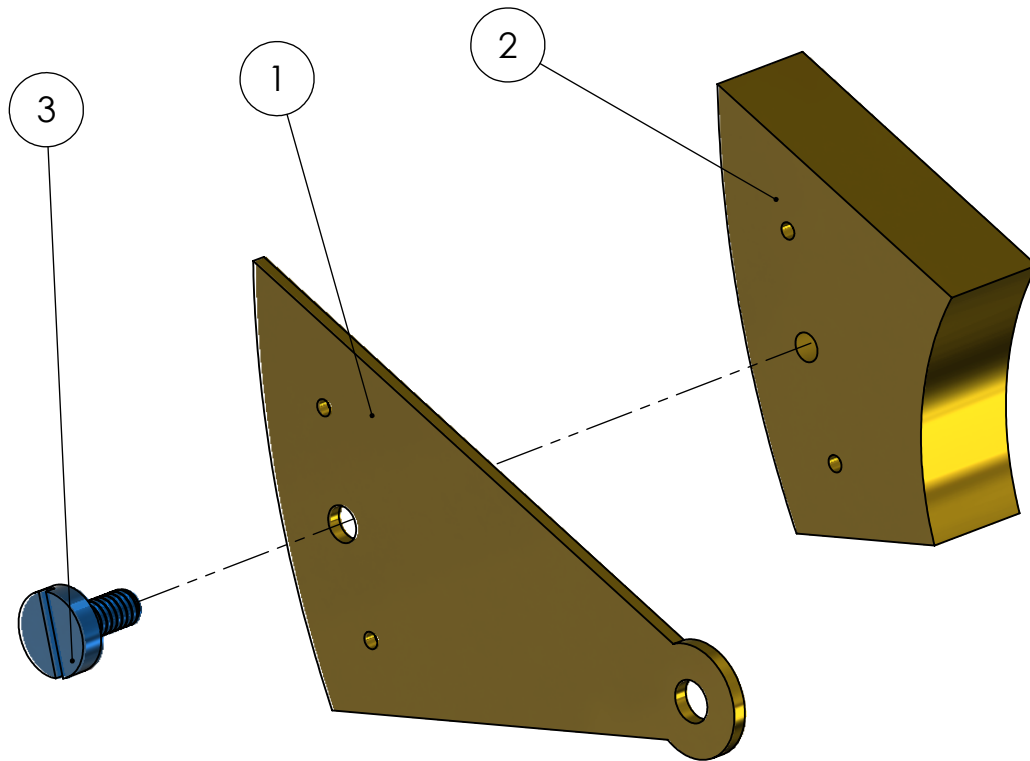
TITLE:  
**SUSPENSION ARM  
RETAINING PIN**



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A4

ITEM NO.	PART NUMBER	QTY.
1	Lunar Display Support Plate	1
2	Lunar Display Support Riser	1
3	Screw	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, EN8 STEEL

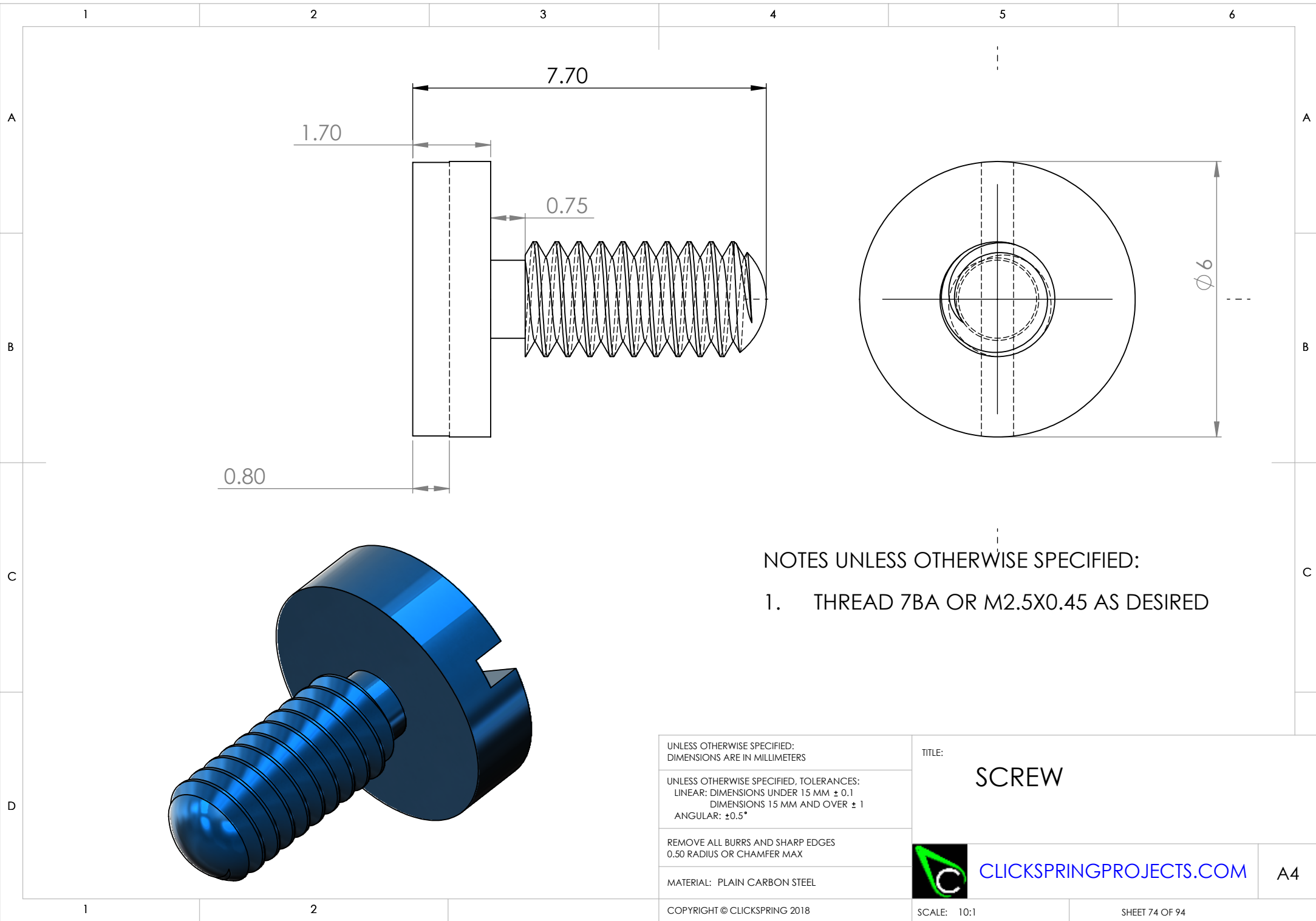
TITLE:

## SUPPORT CUTOUT TEMPLATES



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A4



NOTES UNLESS OTHERWISE SPECIFIED:

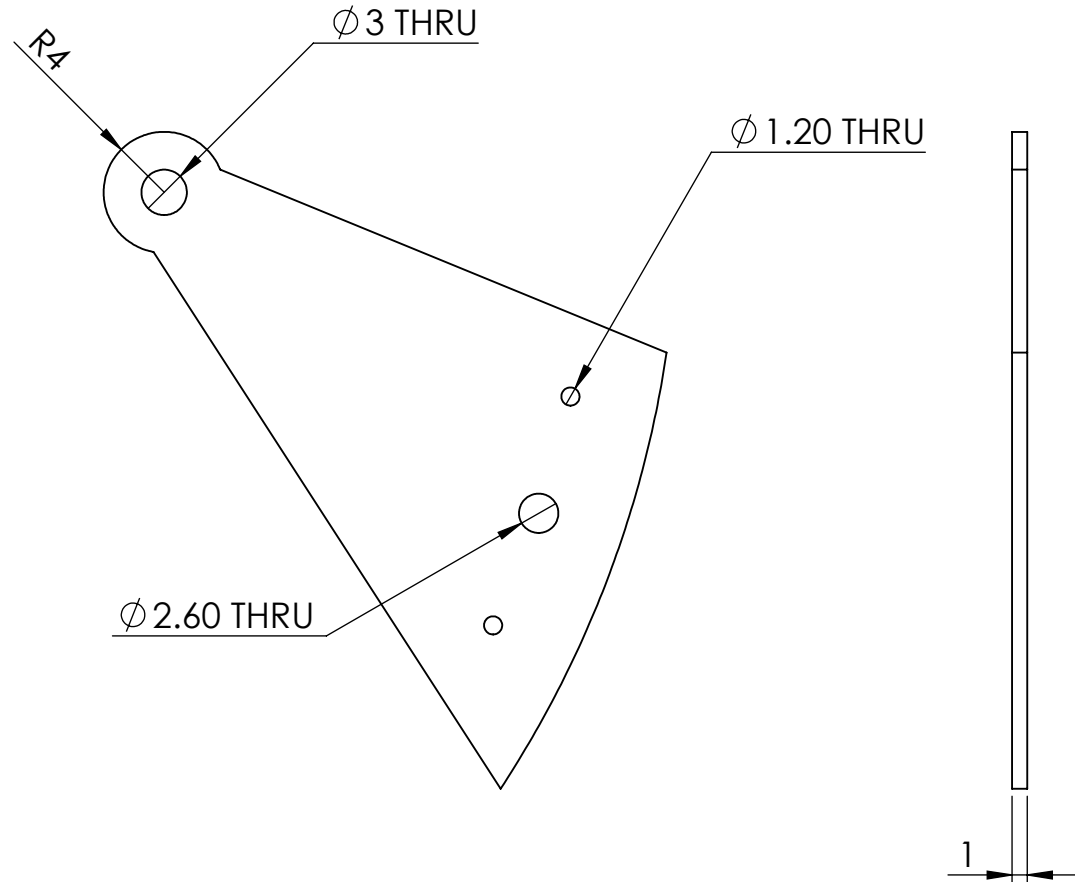
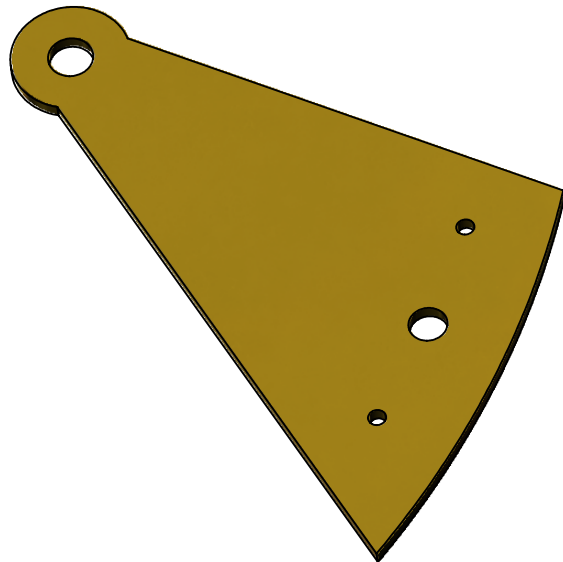
1. THREAD 7BA OR M2.5X0.45 AS DESIRED

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR: DIMENSIONS UNDER 15 MM $\pm 0.1$ DIMENSIONS 15 MM AND OVER $\pm 1$ ANGULAR: $\pm 0.5^\circ$
REMOVE ALL BURRS AND SHARP EDGES 0.50 RADIUS OR CHAMFER MAX
MATERIAL: PLAIN CARBON STEEL

TITLE: <b>SCREW</b>	 <a href="http://CLICKSPRINGPROJECTS.COM">CLICKSPRINGPROJECTS.COM</a>	A4
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NOTES UNLESS OTHERWISE SPECIFIED:

1. USE "SUPPORT CUTOUT TEMPLATES" SHEET FOR ROUGH STOCK SIZING AS PER VIDEO



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

LUNAR DISPLAY SUPPORT  
PLATE



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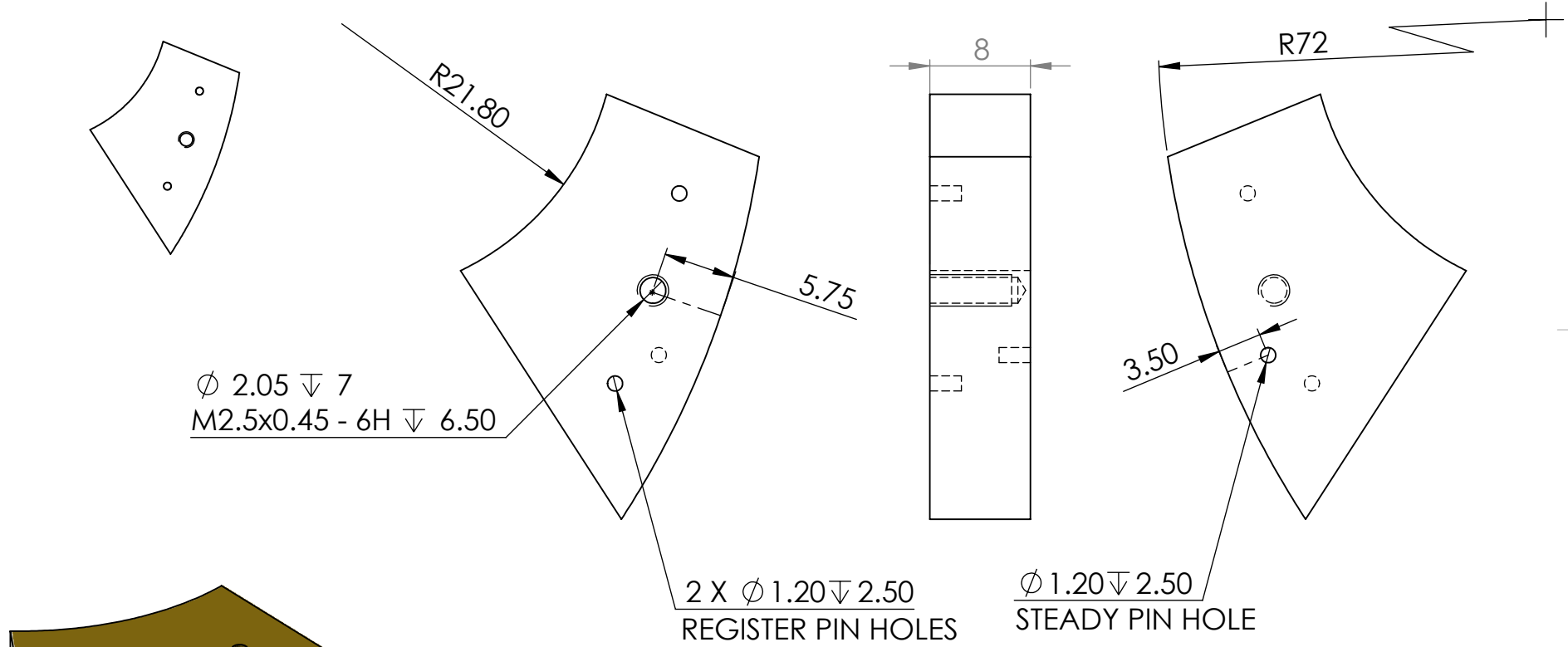
A4

SCALE: 2:1

SHEET 75 OF 94

NOTES UNLESS OTHERWISE SPECIFIED:

- 1. METRIC THREAD DEPICTED, 7BA EQUIVALENT
- 2. RADIAL POSITION OF LOWER REGISTER PIN ARBITRARY
- 3. USE THIS 1:1 COPY AS ROUGH GUIDE TEMPLATE FOR STOCK SIZING



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

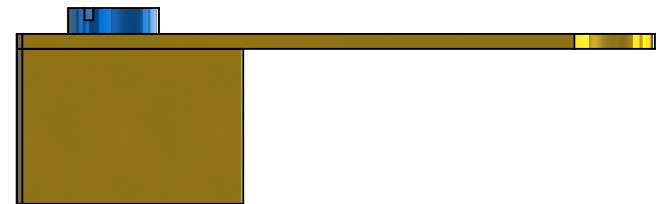
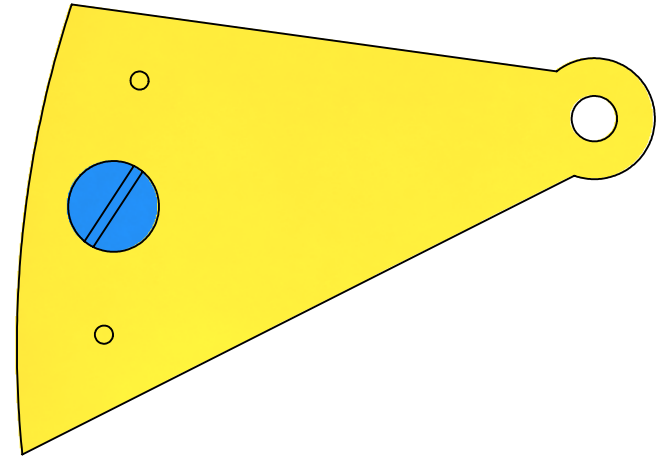
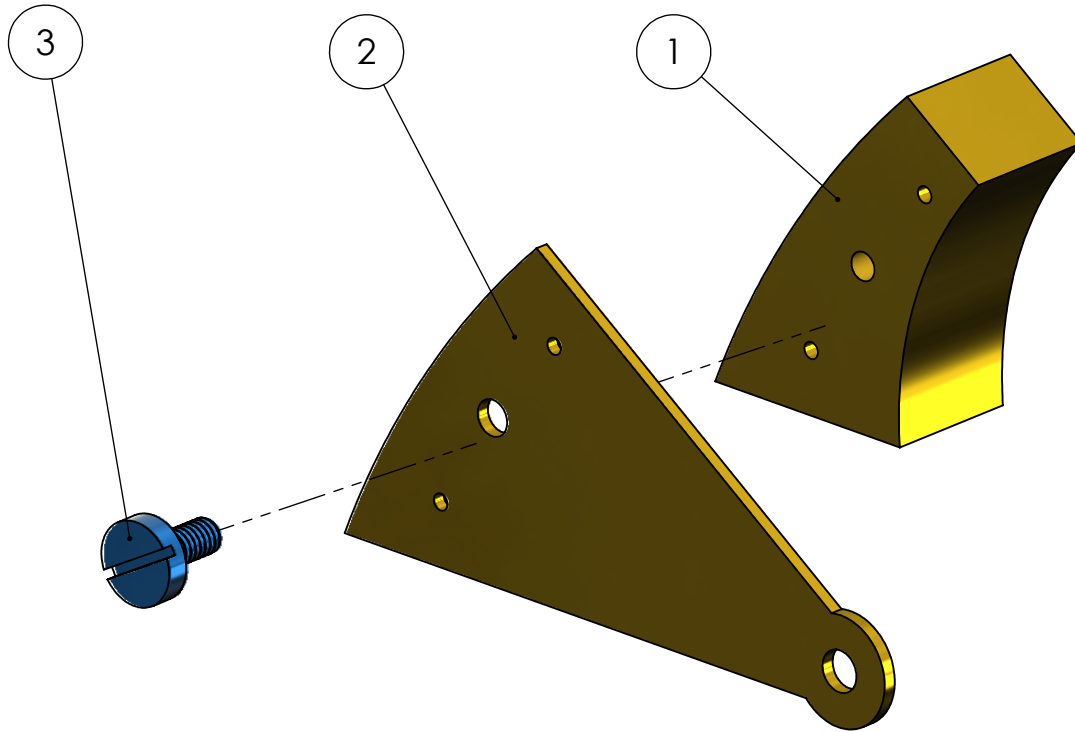
MATERIAL: BRASS

TITLE:  
**LUNAR DISPLAY SUPPORT RISER**

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A4

ITEM NO.	PART NUMBER	QTY.
1	Moon Wheel Support Riser	1
2	Moon Wheel Support Plate	1
3	Screw	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, EN8 STEEL

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TITLE:

# MOON WHEEL SUPPORT ASSEMBLY



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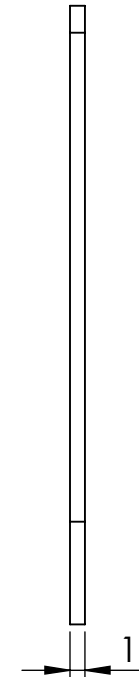
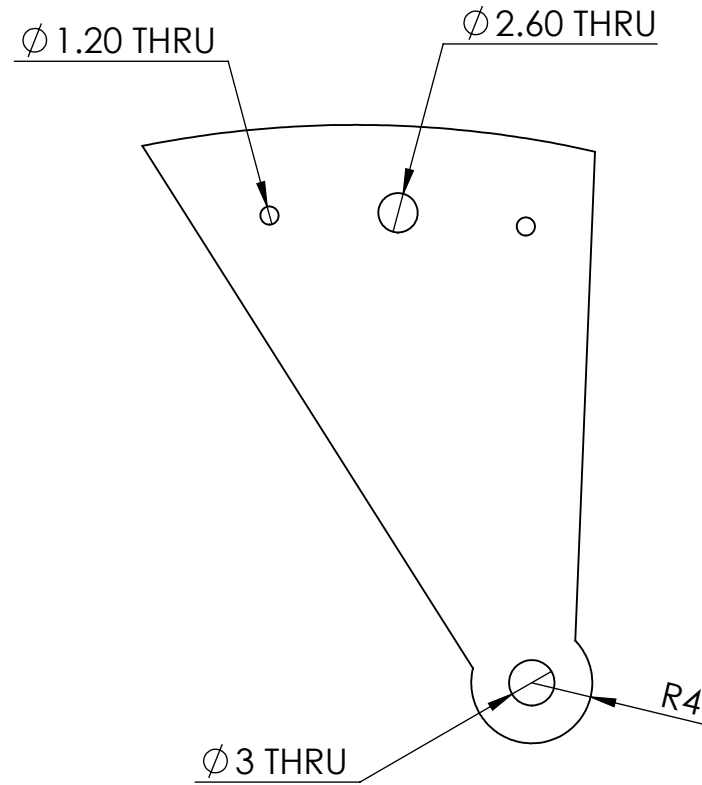
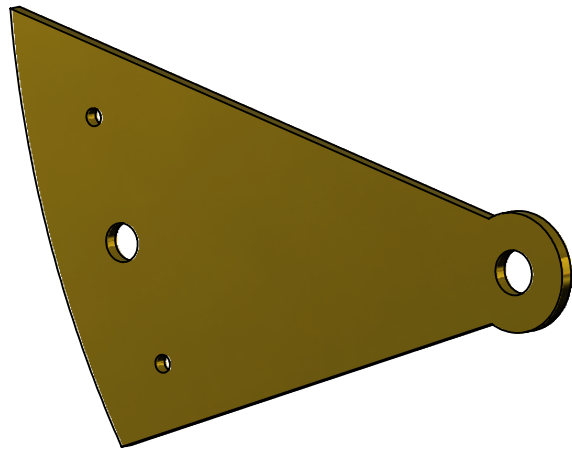
A4

SCALE: 2:1

SHEET 77 OF 94

NOTES UNLESS OTHERWISE SPECIFIED:

1. USE "SUPPORT CUTOUT TEMPLATES" SHEET FOR ROUGH STOCK SIZING AND HOLE POSITIONS AS PER VIDEO



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:  
**MOON WHEEL SUPPORT  
PLATE**



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A4

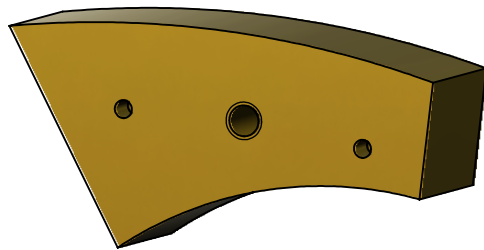
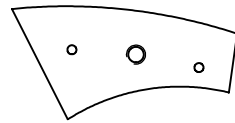
SCALE: 2:1

SHEET 78 OF 94



NOTES UNLESS OTHERWISE SPECIFIED:

1. METRIC THREAD DEPICTED, 7BA EQUIVALENT
2. RADIAL POSITION OF LOWER REGISTER PIN ARBITRARY
3. USE THIS 1:1 COPY AS ROUGH GUIDE TEMPLATE FOR STOCK SIZING



2 X  $\phi 1.20 \pm 0.025$   
REGISTER PIN HOLES

10.25

R27.55

3.50

$\phi 1.20 \pm 0.025$   
STEADY PIN HOLE

5.75

$\phi 2.05 \pm 0.007$   
M2.5x0.45 - 6H  $\pm 0.00650$

R72

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

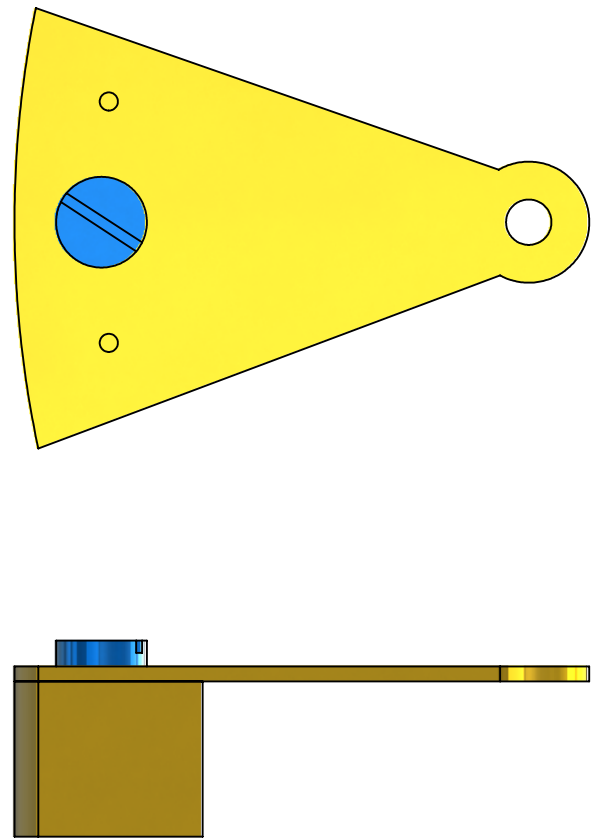
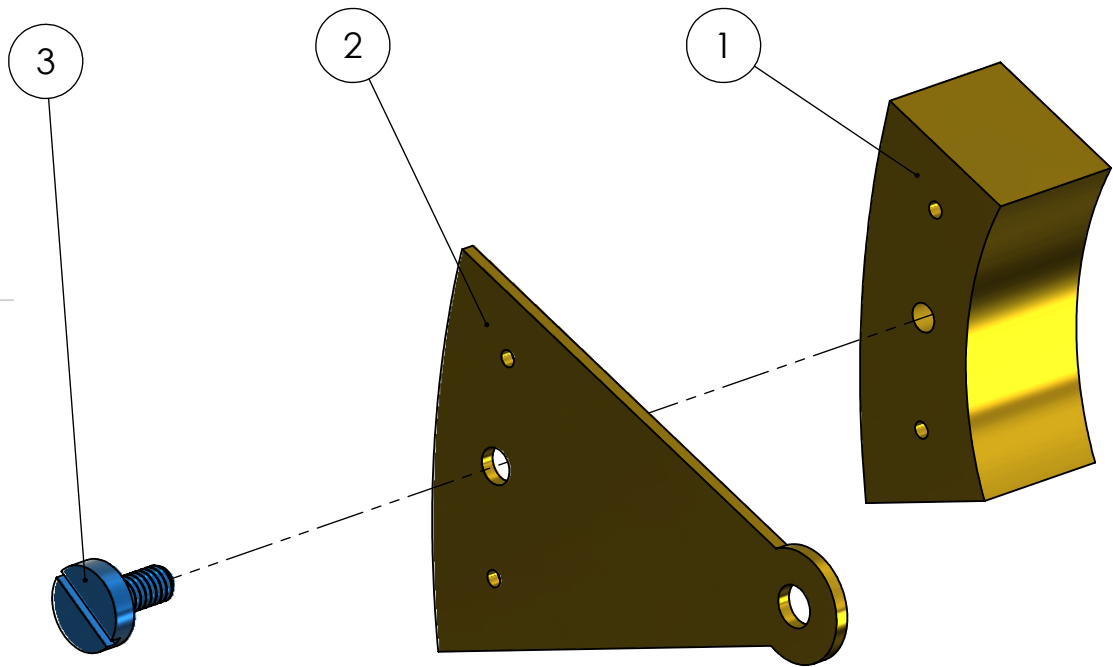
TITLE:  
**MOON WHEEL SUPPORT  
RISER**



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A4

ITEM NO.	PART NUMBER	QTY.
1	Solar Display Support Riser	1
2	Solar Display Support Plate	1
3	Screw	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, EN8 STEEL

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TITLE:

# SOLAR DISPLAY SUPPORT ASSEMBLY



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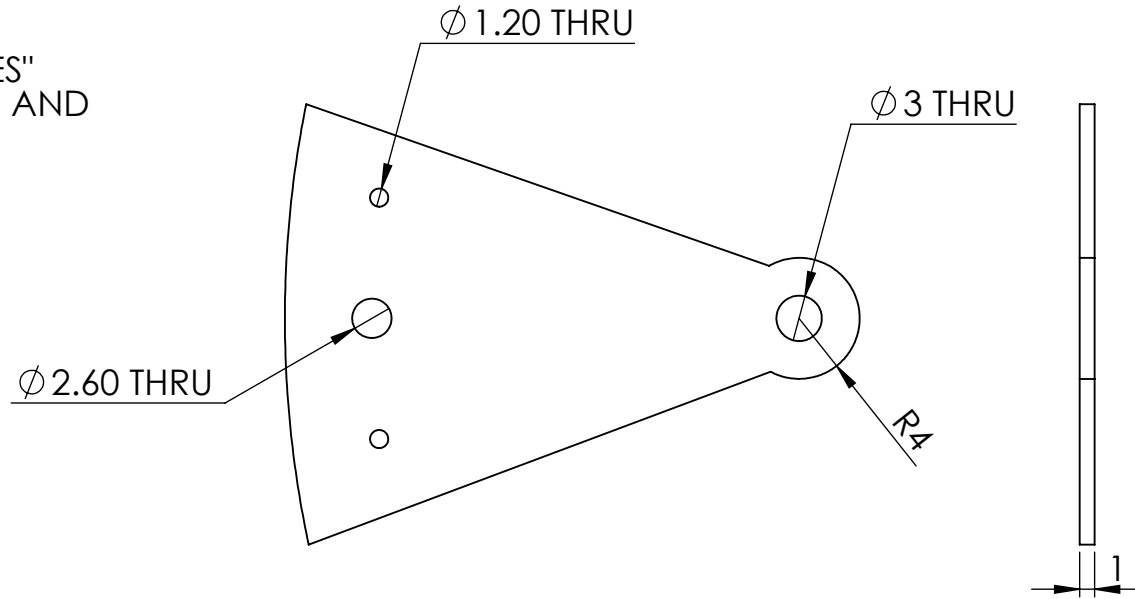
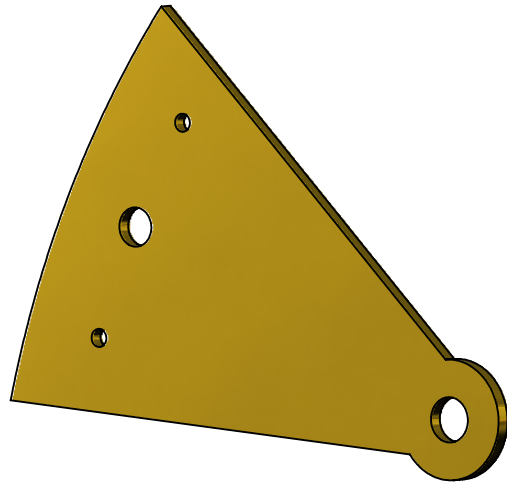
A4

SCALE: 2:1

SHEET 80 OF 94

NOTES UNLESS OTHERWISE SPECIFIED:

1. USE "SUPPORT CUTOUT TEMPLATES" SHEET FOR ROUGH STOCK SIZING AND HOLE POSITIONS AS PER VIDEO



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SOLAR DISPLAY SUPPORT  
PLATE



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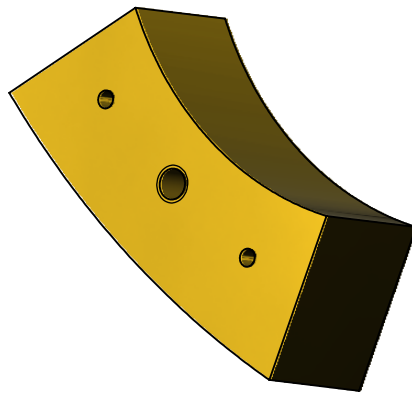
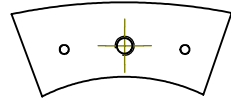
A4

SCALE: 2:1

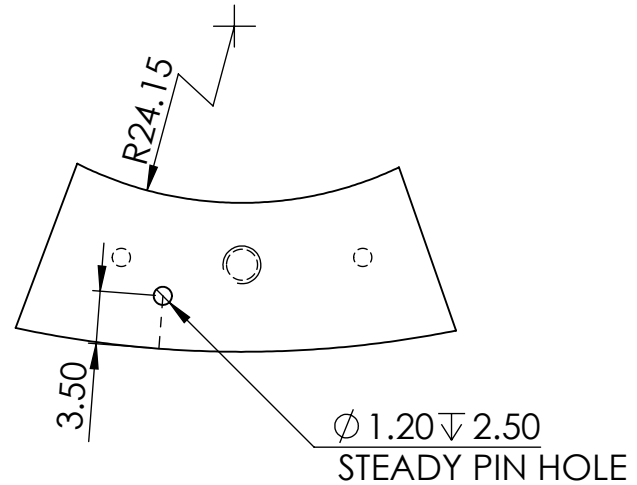
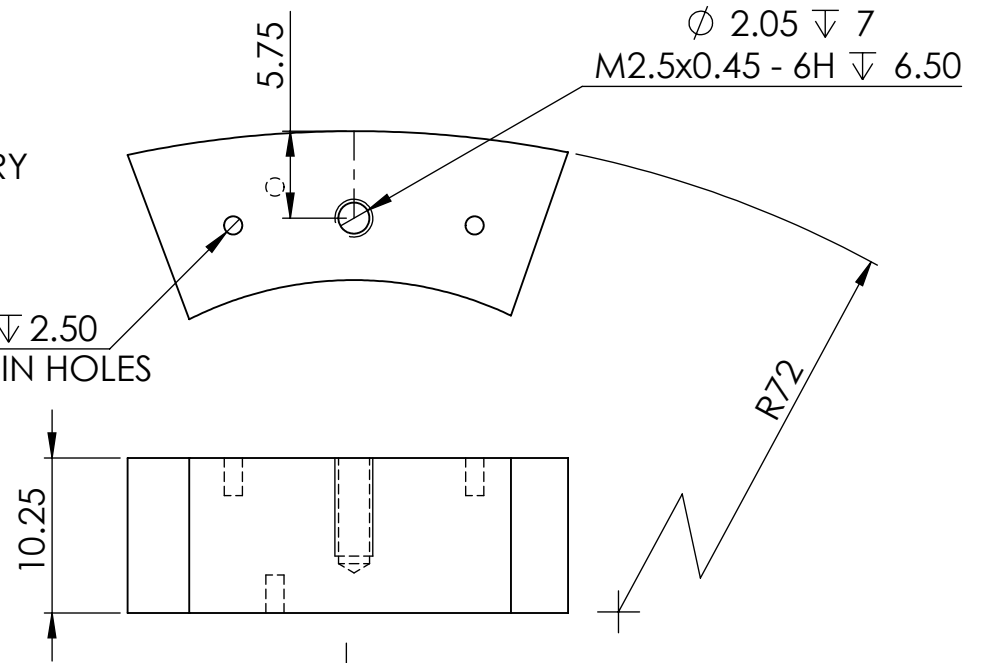
SHEET 81 OF 94

NOTES UNLESS OTHERWISE SPECIFIED:

1. METRIC THREAD DEPICTED, 7BA EQUIVALENT
2. RADIAL POSITION OF LOWER REGISTER PIN ARBITRARY
3. USE THIS 1:1 COPY AS ROUGH GUIDE TEMPLATE FOR STOCK SIZING



2 X  $\varnothing 1.20 \nabla 2.50$   
REGISTER PIN HOLES



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

SOLAR DISPLAY SUPPORT  
RISER



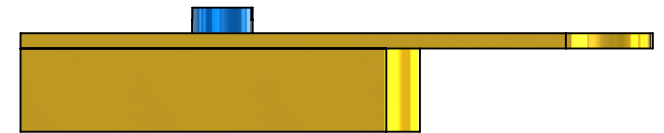
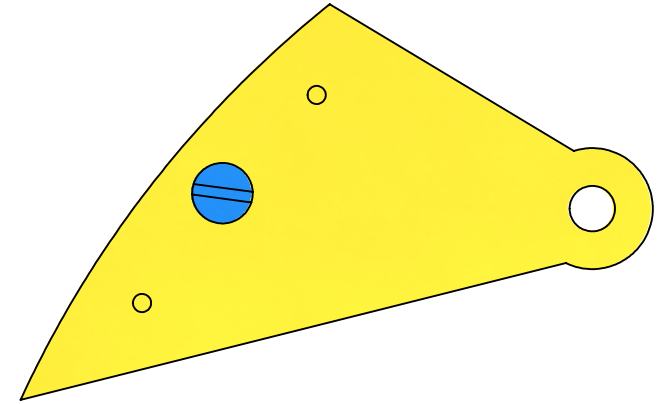
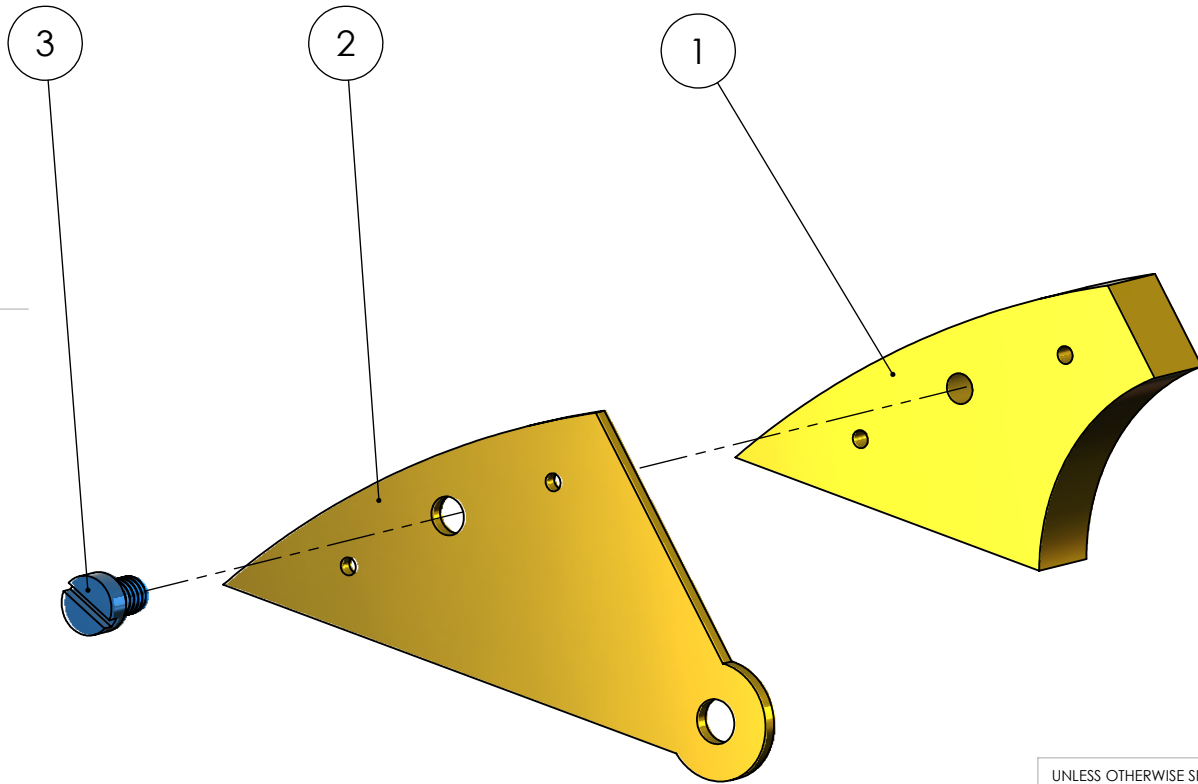
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A4

SCALE: 2:1

SHEET 82 OF 94

ITEM NO.	PART NUMBER	QTY.
1	Eclipse Idler Wheel Support Riser	1
2	Eclipse Idler Wheel Support Plate	1
3	Screw Small	1



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

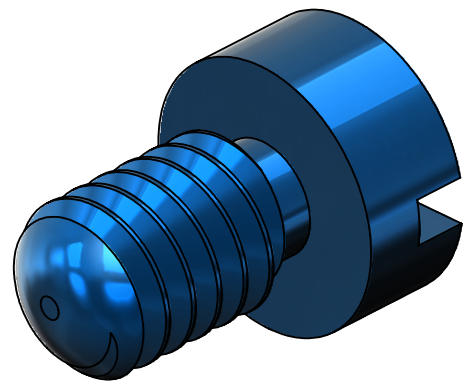
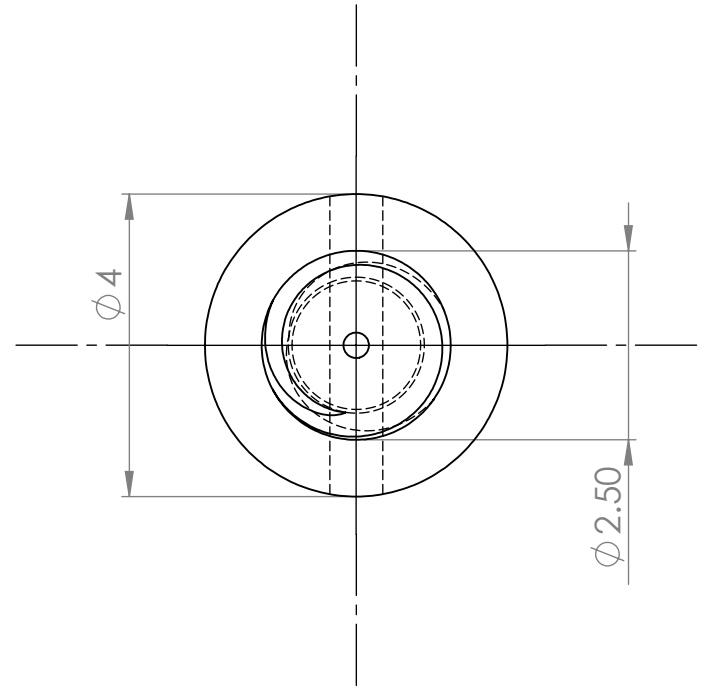
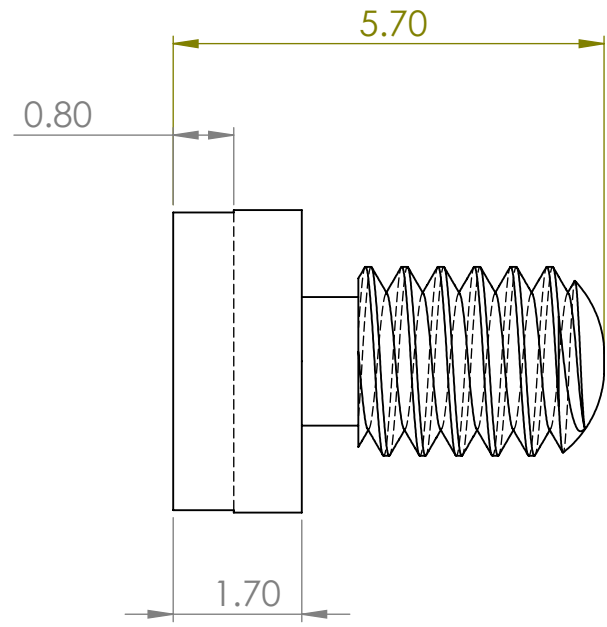
REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, EN8 STEEL

TITLE:  
**SUPPORT STRUCTURE  
CUT-OUT TEMPLATES**



A4



NOTES UNLESS OTHERWISE SPECIFIED:

1. THREAD 7BA OR M2.5X0.45 AS DESIRED

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: PLAIN CARBON STEEL

TITLE:  
**SCREW SMALL**

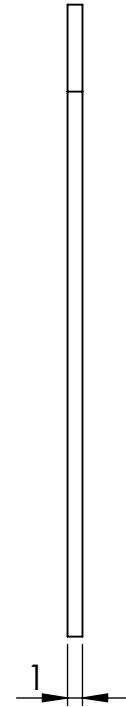
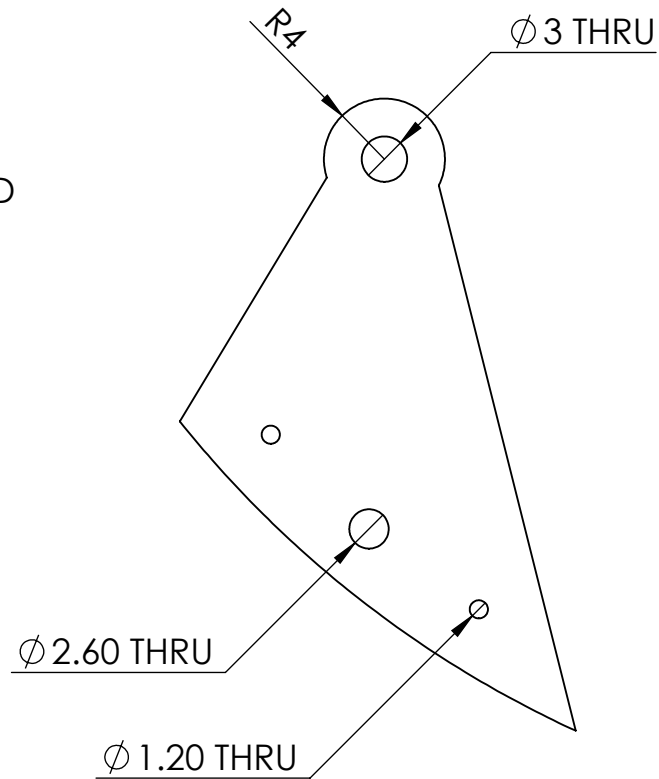
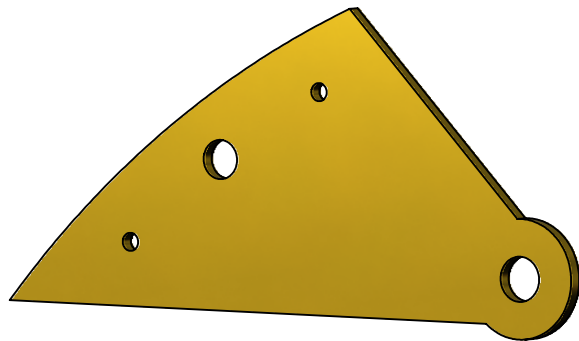


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A4

NOTES UNLESS OTHERWISE SPECIFIED:

1. USE "SUPPORT CUTOUT TEMPLATES" SHEET FOR ROUGH STOCK SIZING AND HOLE POSITIONS AS PER VIDEO



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

ECLIPSE IDLER WHEEL  
SUPPORT PLATE



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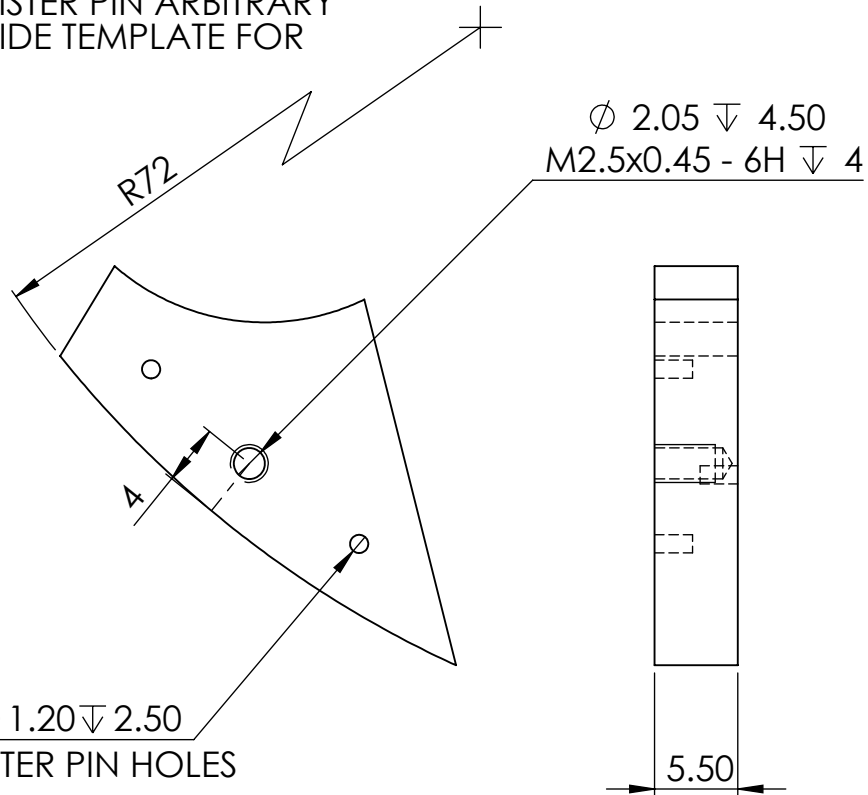
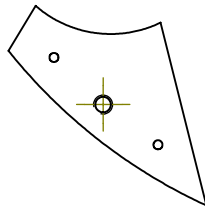
A4

SCALE: 2:1

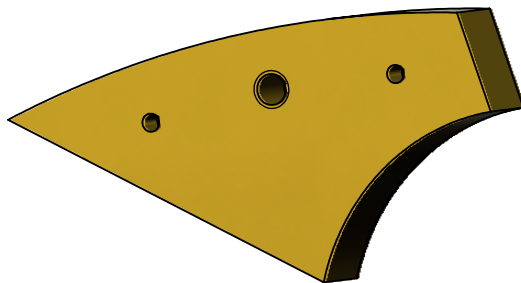
SHEET 85 OF 94

NOTES UNLESS OTHERWISE SPECIFIED:

1. METRIC THREAD DEPICTED, 7BA EQUIVALENT
2. RADIAL POSITION OF LOWER REGISTER PIN ARBITRARY
3. USE THIS 1:1 COPY AS ROUGH GUIDE TEMPLATE FOR STOCK SIZING



2 X  $\phi 1.20 \nabla 2.50$   
REGISTER PIN HOLES



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

ECLIPSE IDLER WHEEL  
SUPPORT RISER



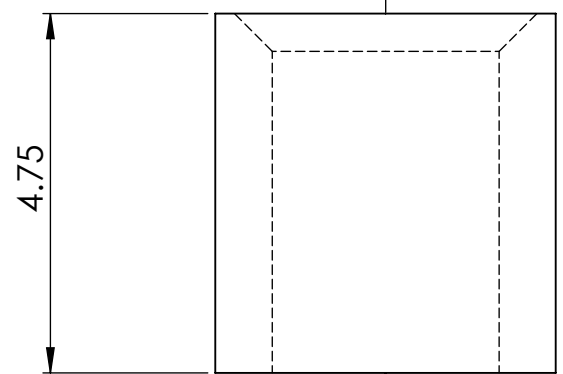
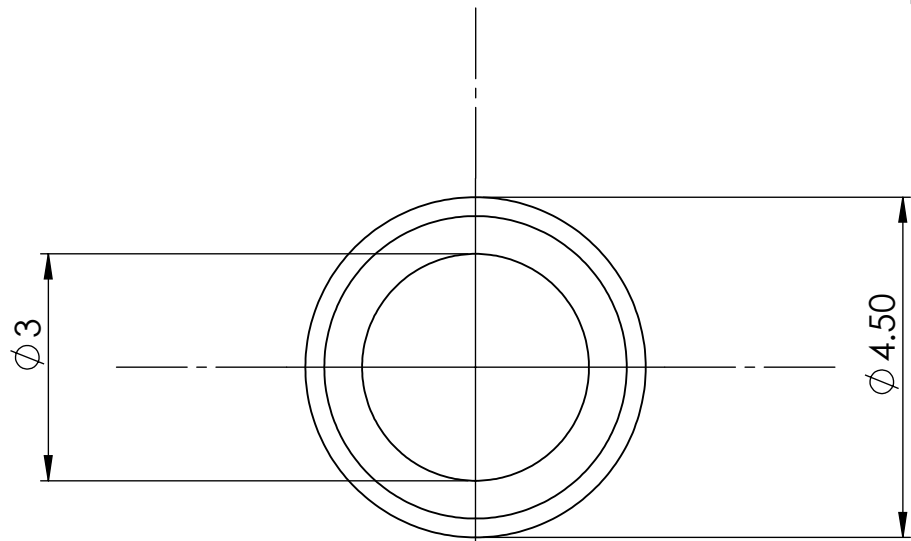
CLICKSPRINGPROJECTS.COM

A4

SCALE: 2:1

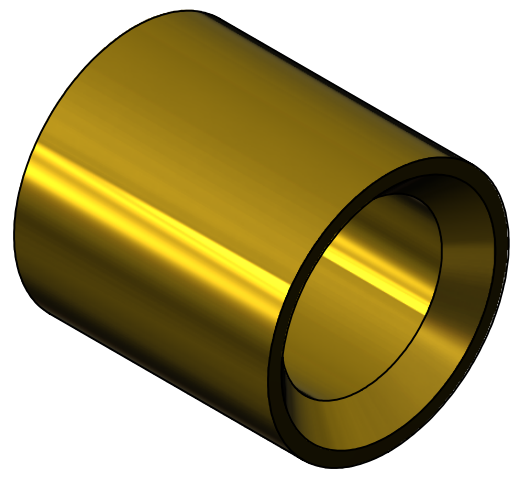
SHEET 86 OF 94





NOTES UNLESS OTHERWISE SPECIFIED:

- INSIDE CHAMFER 45°



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

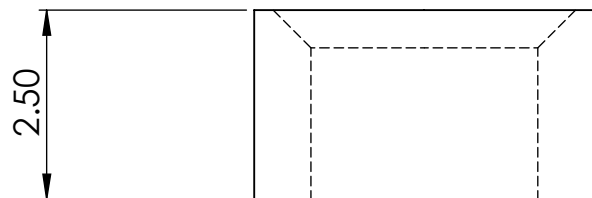
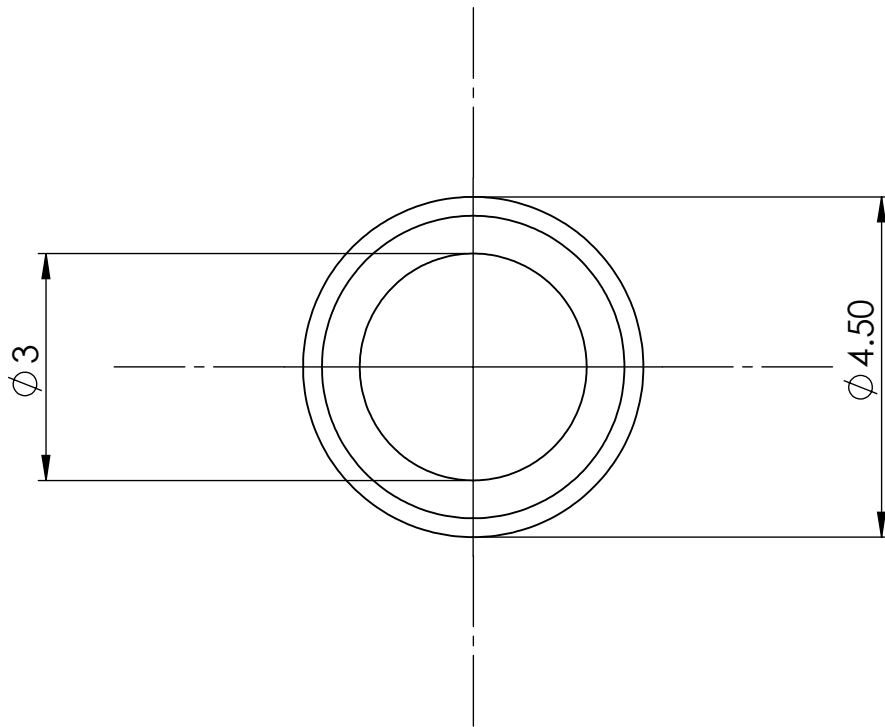
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

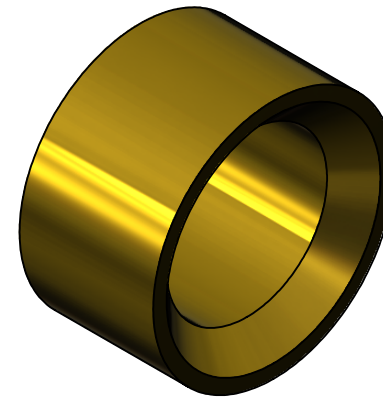
TITLE: COLLAR BEARING TALL

 [CLICKSPRINGPROJECTS.COM](http://CLICKSPRINGPROJECTS.COM) A4



NOTES UNLESS OTHERWISE SPECIFIED:

- INSIDE CHAMFER 45°
- 3 X REQUIRED



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

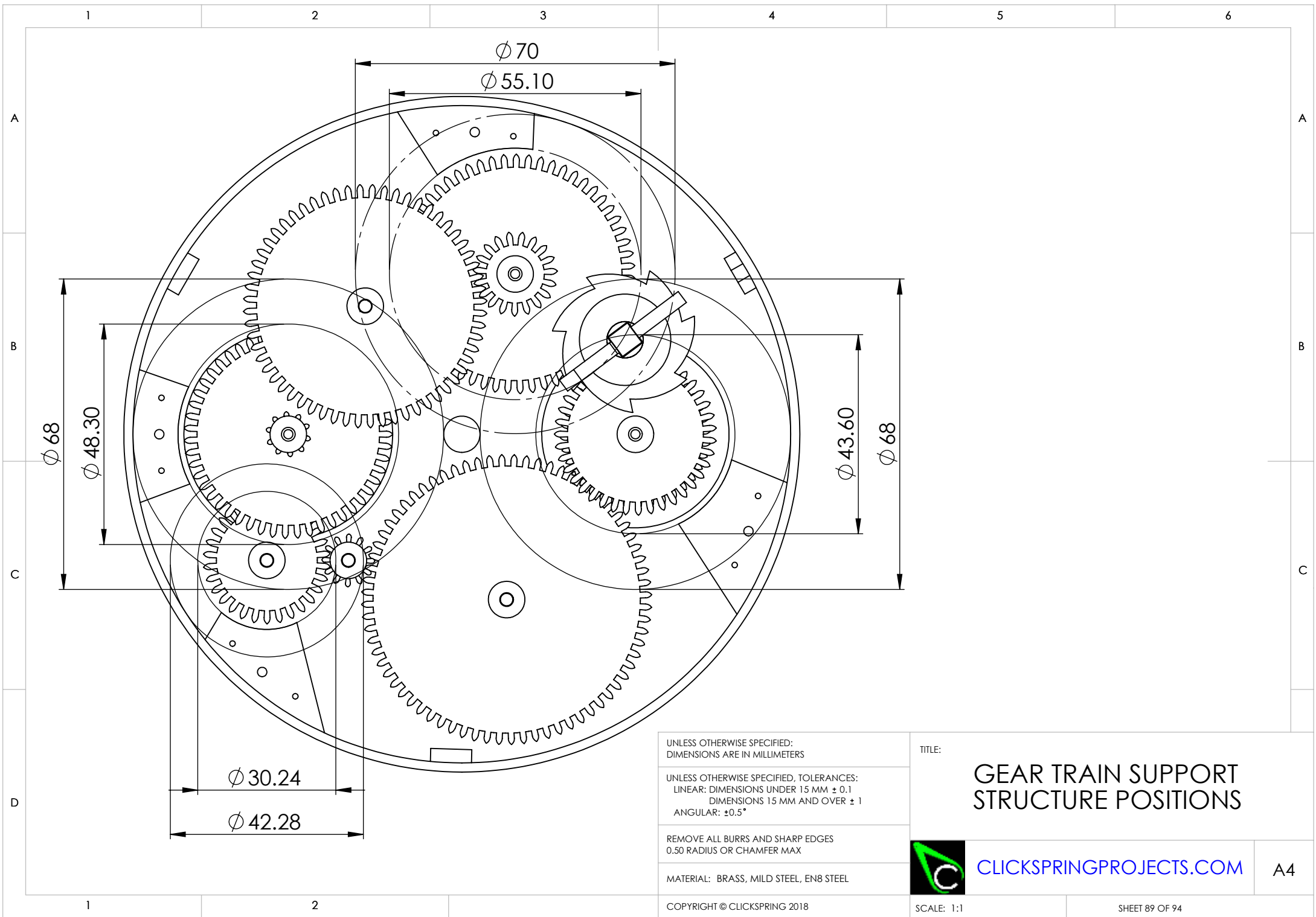
TITLE:

COLLAR BEARING SHORT



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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS, MILD STEEL, EN8 STEEL

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TITLE:

# GEAR TRAIN SUPPORT STRUCTURE POSITIONS



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A4

SCALE: 1:1

SHEET 89 OF 94

1

2

3

4

5

6

A

A

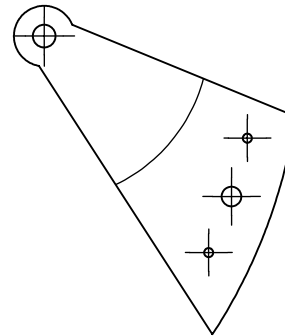
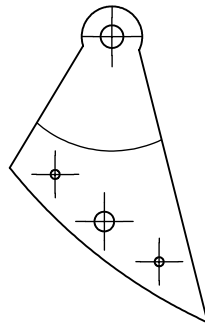
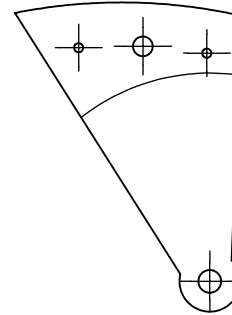
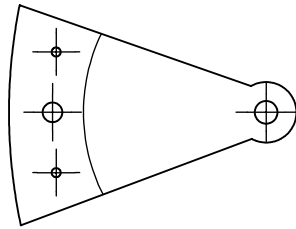
B

B

C

C

D



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: BRASS

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TITLE:

# ECLIPSE IDLER WHEEL SUPPORT PLATE



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A4

SCALE: 1:1

SHEET 90 OF 94

1

2

1

2

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SCALE: 1:1

SHEET 90 OF 94

1

2

3

4

5

6

A

A

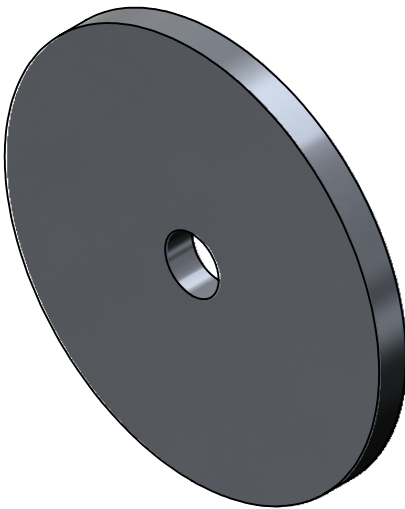
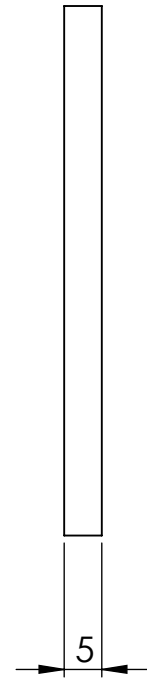
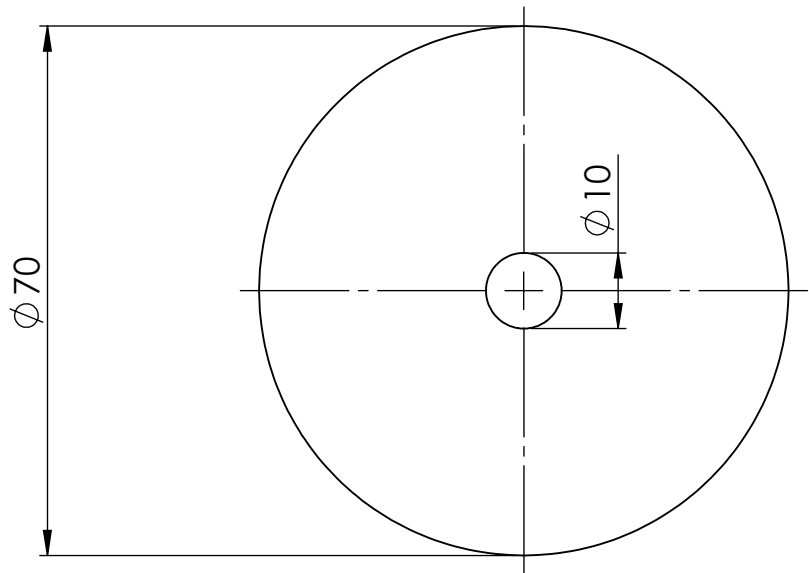
B

B

C

C

D



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: 6061 ALLOY

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TITLE:  
**70mm ALIGNMENT DISC**



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A4

1

2

SCALE: 1:1

SHEET 91 OF 94

1 2 3 4 5 6

A

A

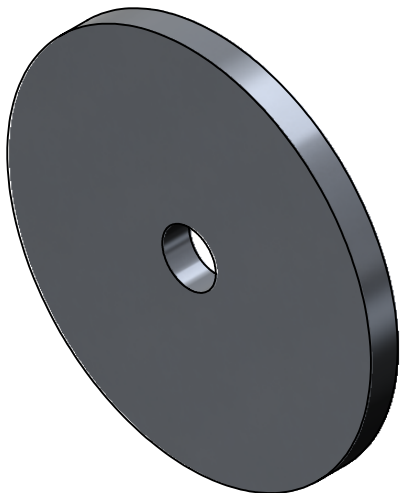
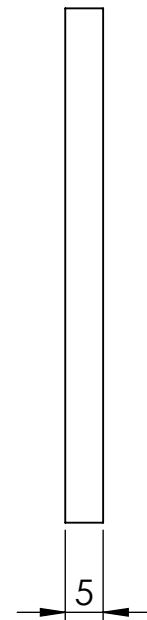
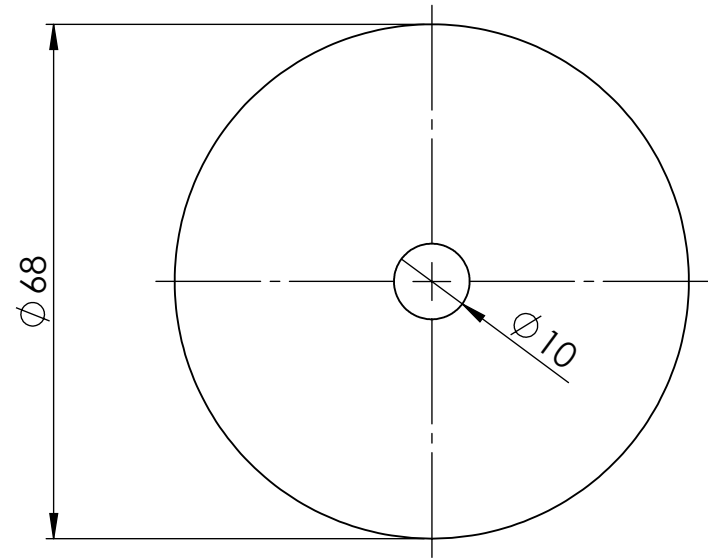
B

B

C

C

D



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

TITLE:

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM ± 0.1  
DIMENSIONS 15 MM AND OVER ± 1  
ANGULAR: ±0.5°

68mm ALIGNMENT DISC

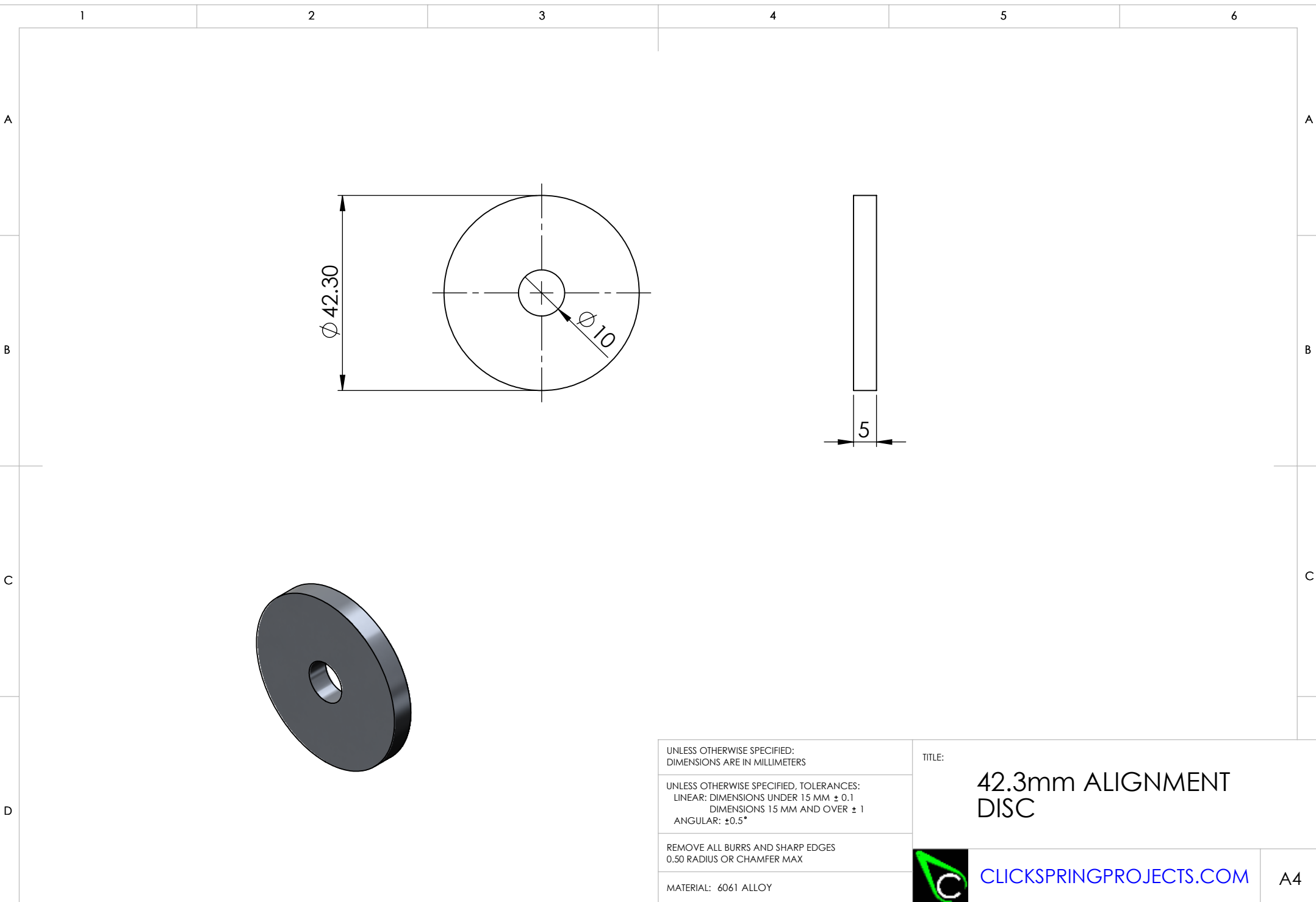
REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: 6061 ALLOY



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A4



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

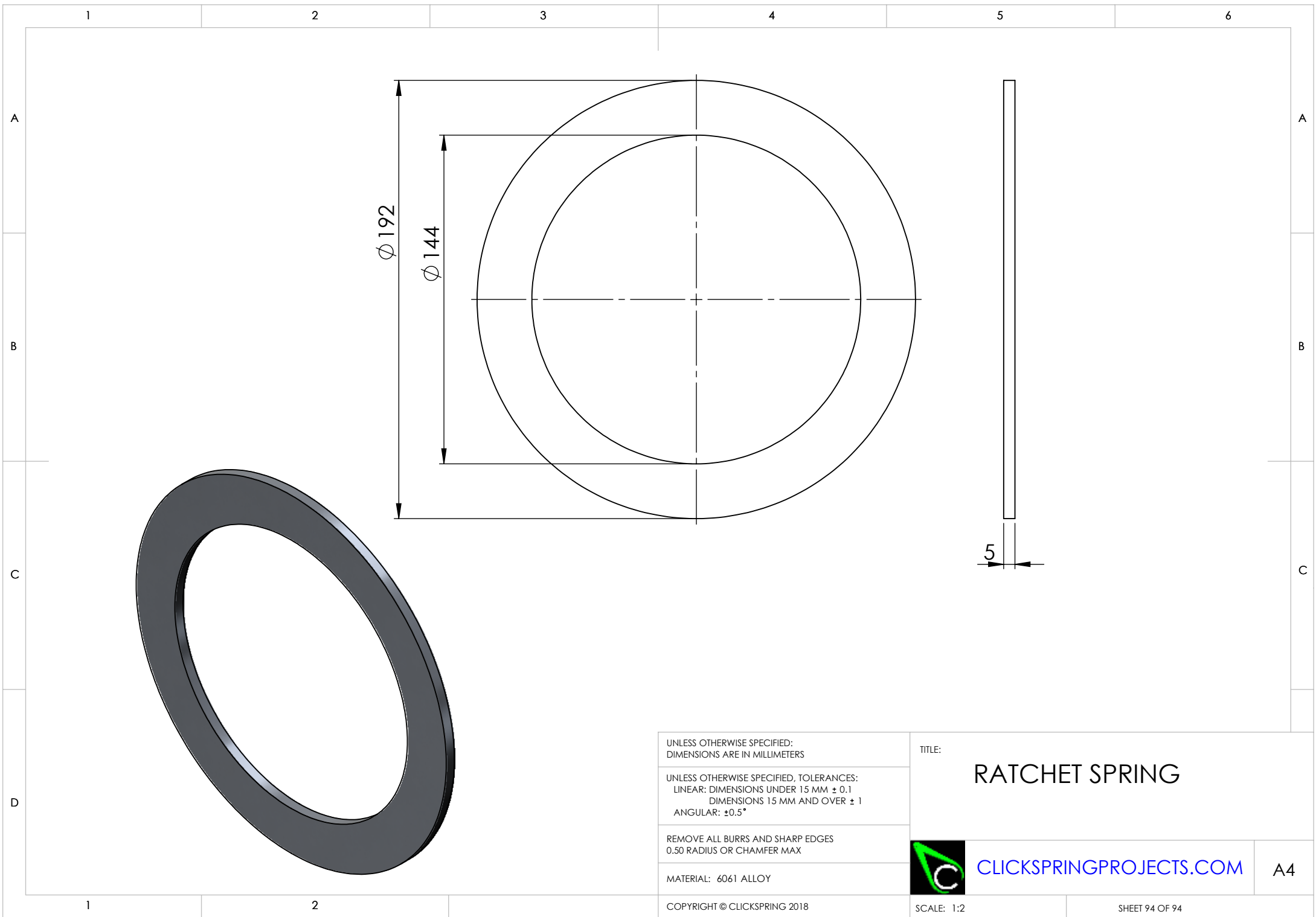
UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: 6061 ALLOY

TITLE:  
**42.3mm ALIGNMENT  
DISC**

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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MILLIMETERS

UNLESS OTHERWISE SPECIFIED, TOLERANCES:  
LINEAR: DIMENSIONS UNDER 15 MM  $\pm 0.1$   
DIMENSIONS 15 MM AND OVER  $\pm 1$   
ANGULAR:  $\pm 0.5^\circ$

REMOVE ALL BURRS AND SHARP EDGES  
0.50 RADIUS OR CHAMFER MAX

MATERIAL: 6061 ALLOY

TITLE: RATCHET SPRING

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