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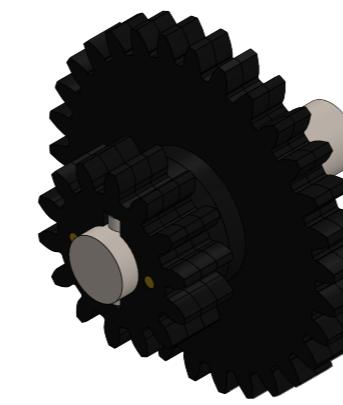
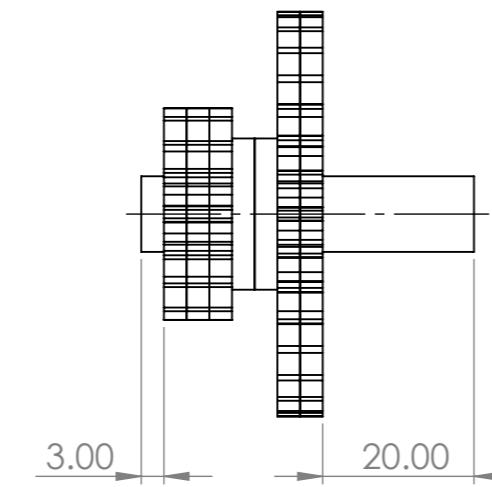
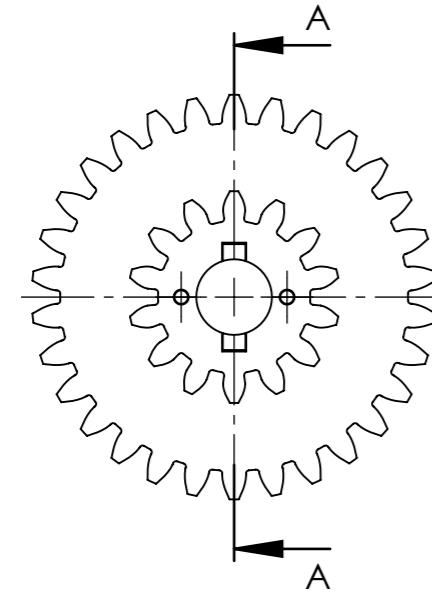
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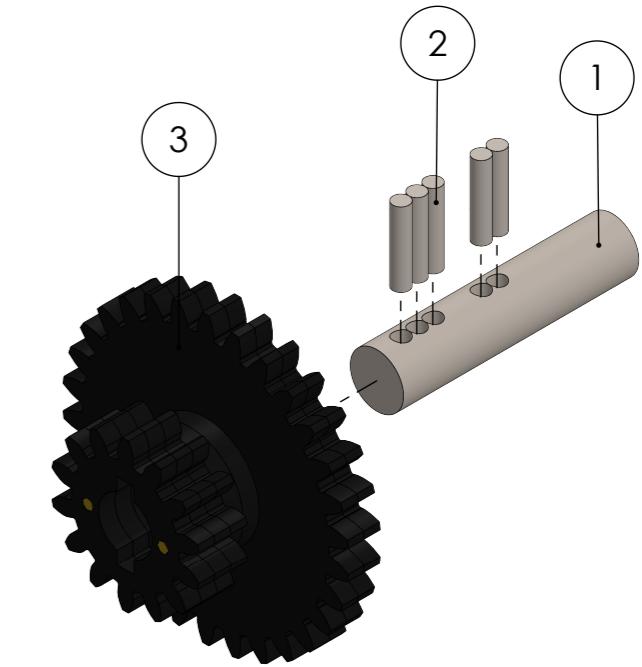
A

A



SECTION A-A

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:	FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
DRAWN	NAME Adam Telfer	SIGNATURE 25/10/25		
CHK'D				
APP'D				
MFG				
Q.A.		MATERIAL:	DWG NO.	
			E-02	A3
		WEIGHT:	SCALE:1:1	SHEET 2 OF 9



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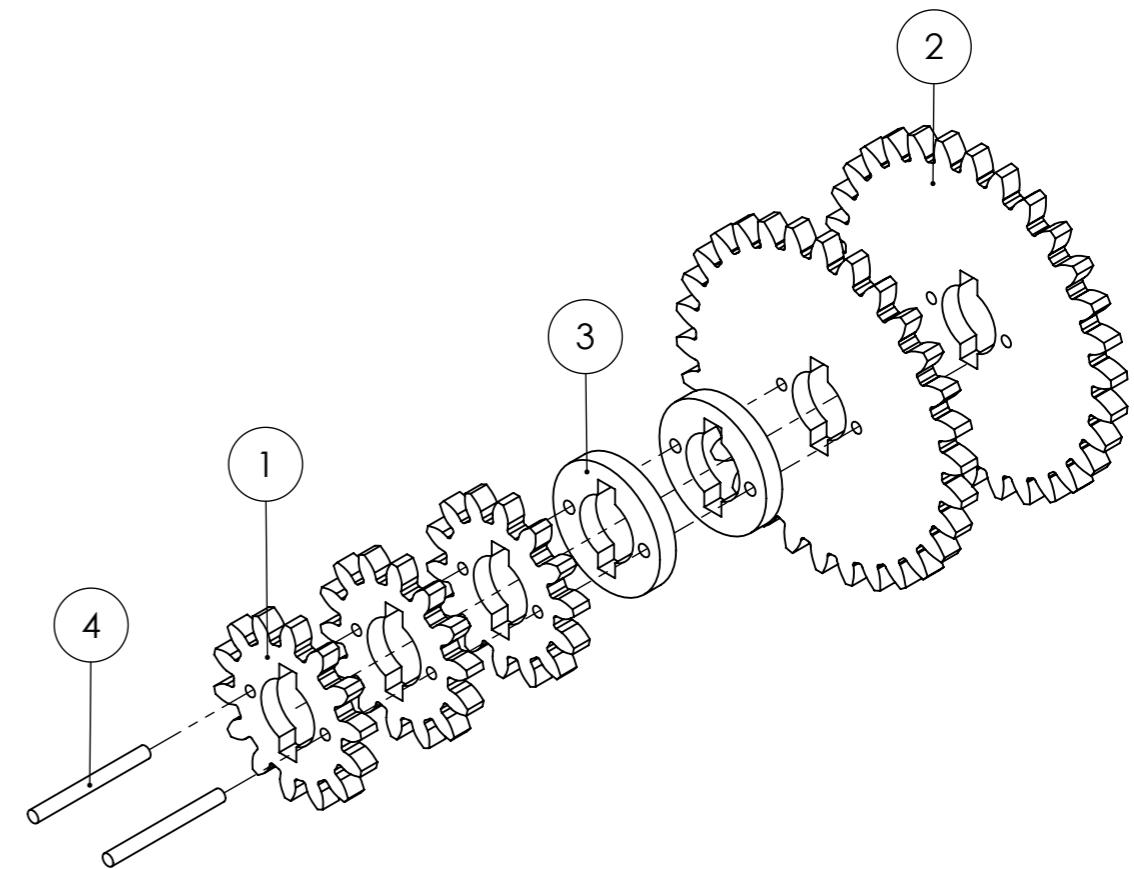
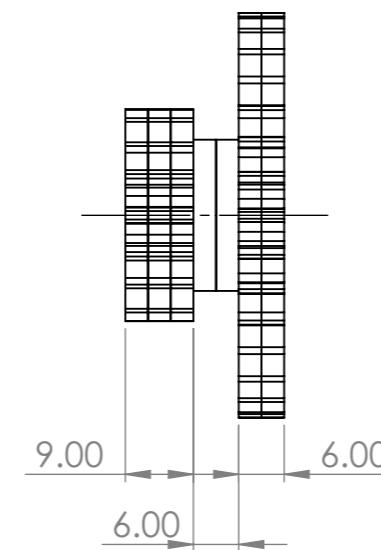
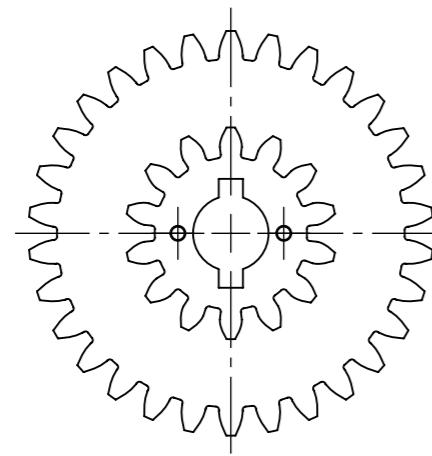
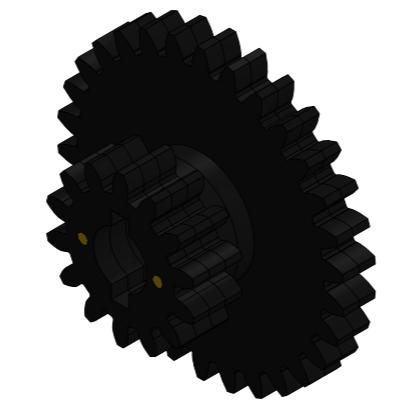
B

B

Notes

Gears and spacers are laser cut from 3 mm acrylic sheet.
2D profiles are found on sheet E-04.

Alignment Pins are 2 mm brass rod that is oversized during assembly then cut flush to the gear face.



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:			FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
DRAWN	NAME	SIGNATURE	DATE			
CHK'D			25/10/25			
APP'D						
MFG						
Q.A				MATERIAL:		
					DWG NO.	
					SCALE:1:1	
					E-03	A3
					SHEET 3 OF 9	

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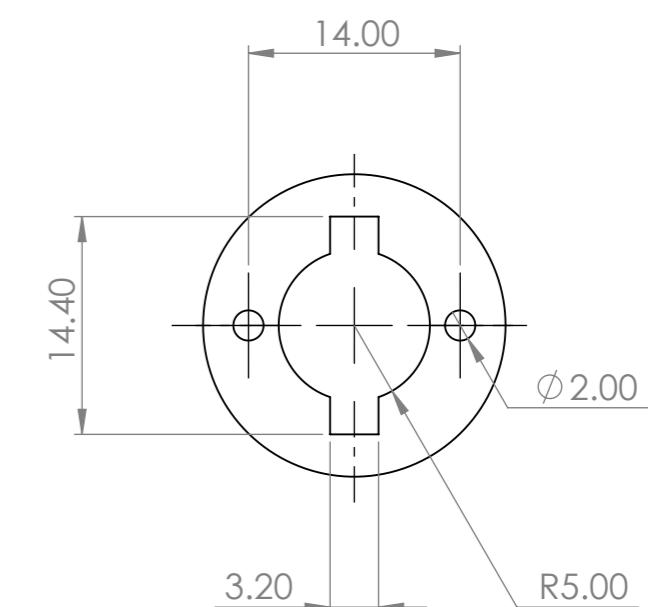
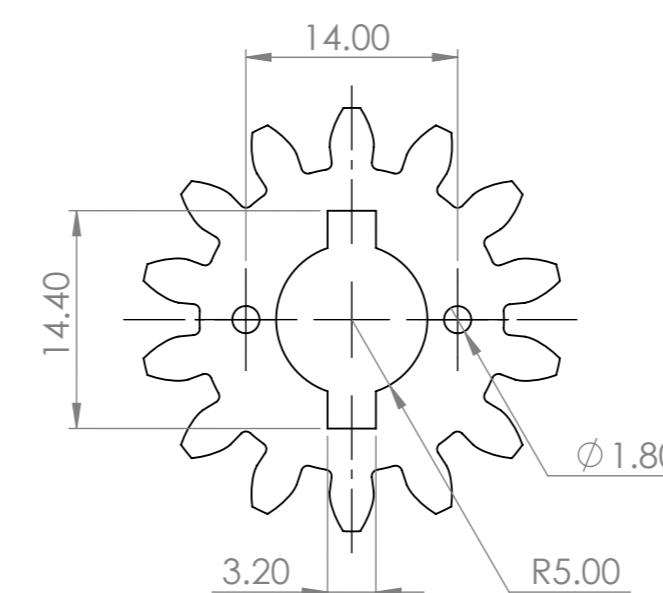
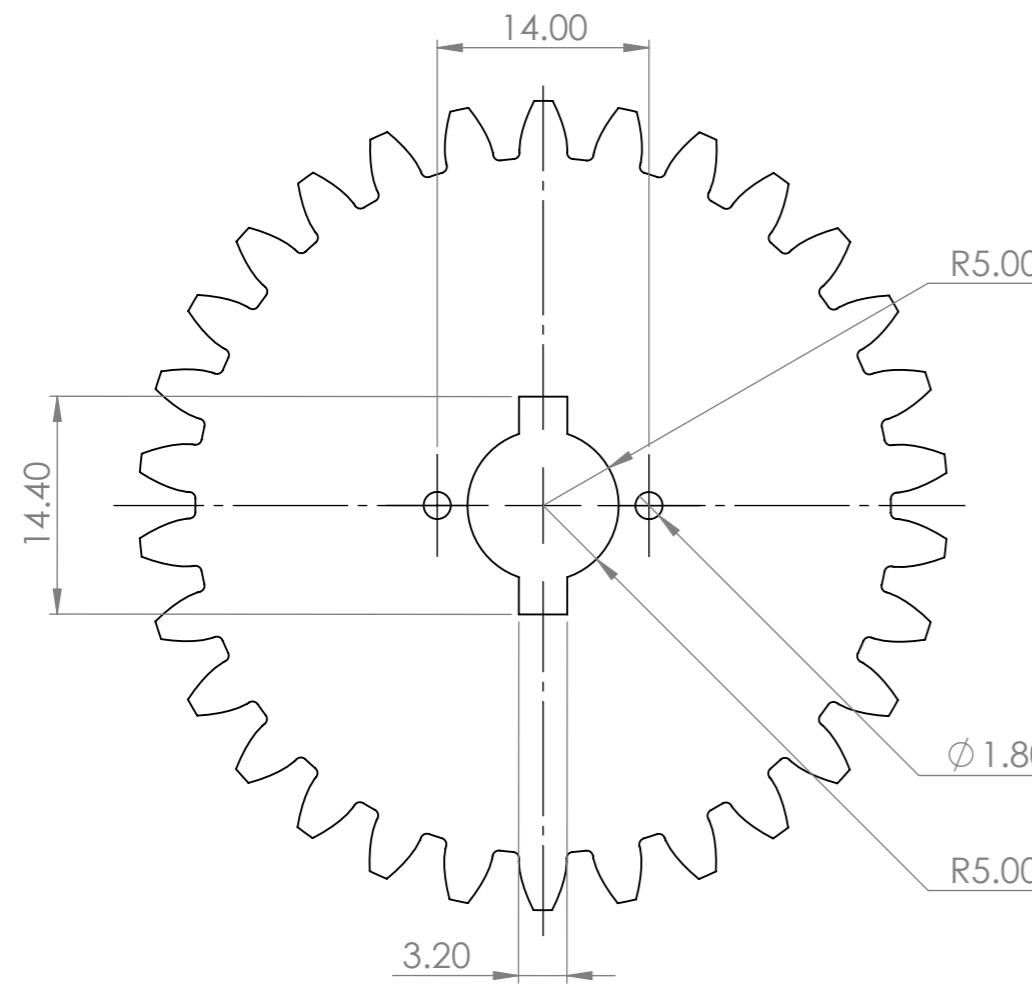
F

F

Stage 1 - Planet 1	
Module	1.67
Teeth	30
Pressure Angle	20 deg

Stage 1 - Planet 2	
Module	1.75
Teeth	14
Pressure Angle	20 deg

Spacer



Notes

Gears and spacer are laser cut from 3 mm acrylic sheet.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:	FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
DRAWN	NAME	SIGNATURE	DATE	
CHK'D				
APP'D				
MFG				
Q.A				
	MATERIAL:	Acrylic		
	WEIGHT:	DWG NO. E-04		
	SCALE:2:1	A3		
	SHEET 4 OF 9			

Stage 1 Planet Gear Profiles

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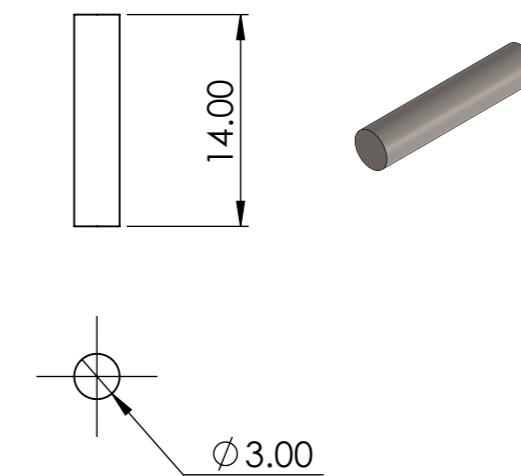
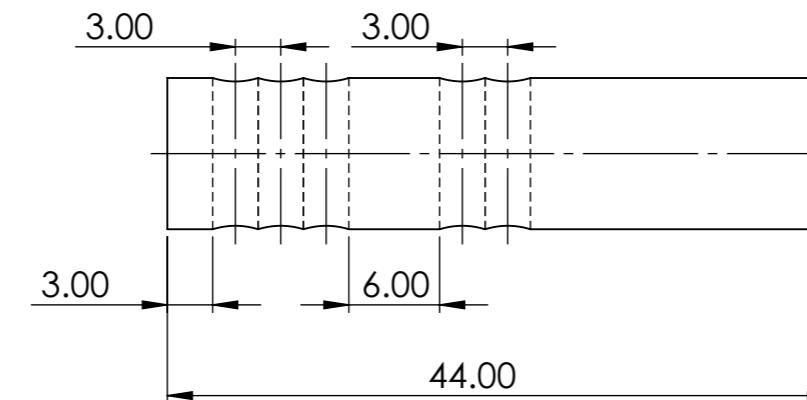
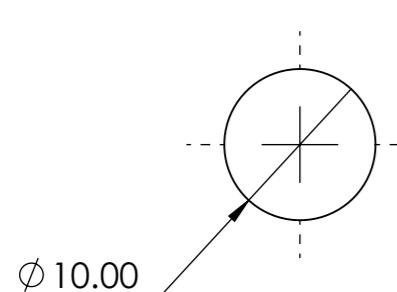
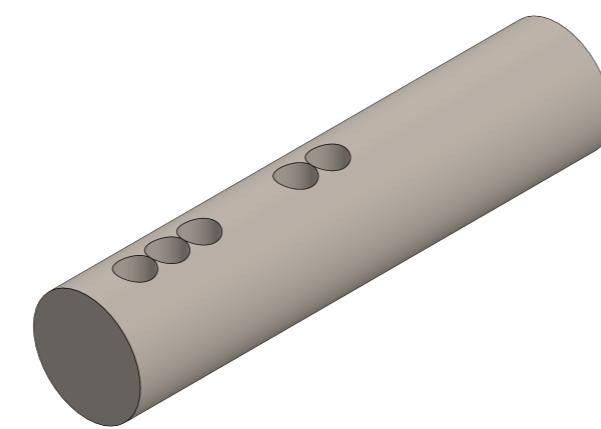
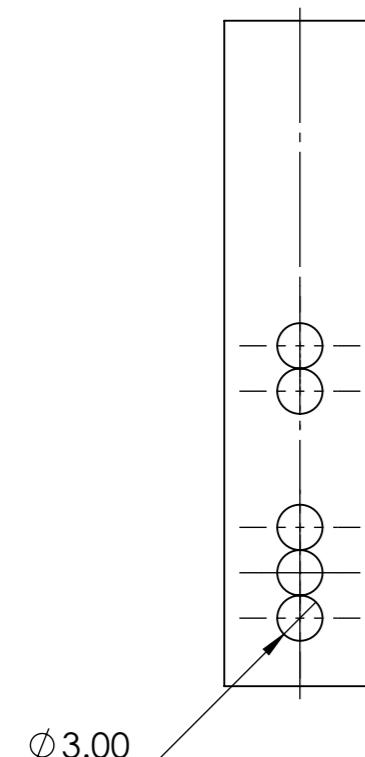
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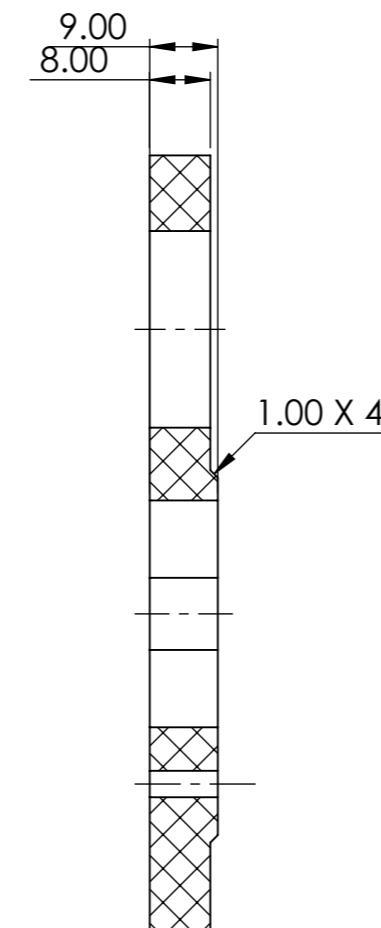
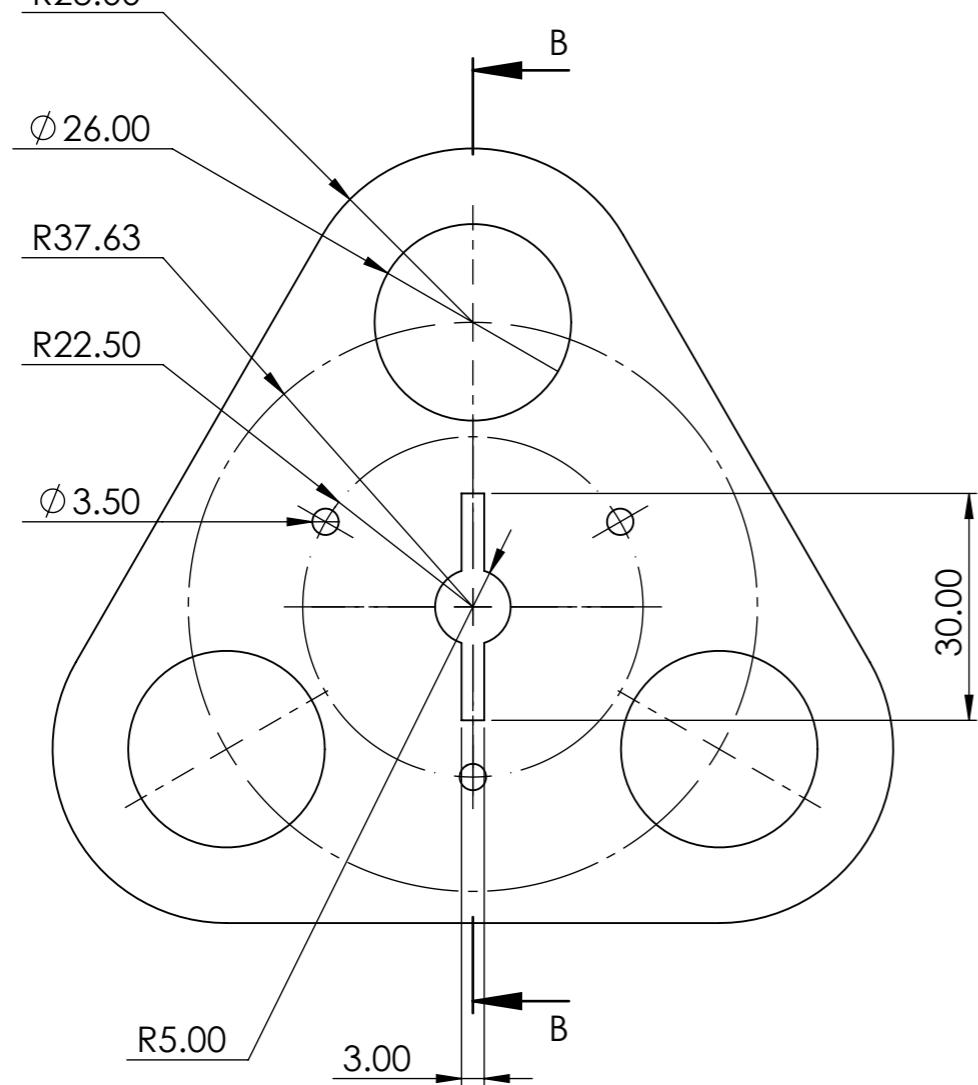
Stage 1 Planet Gear Shaft

Key Pin



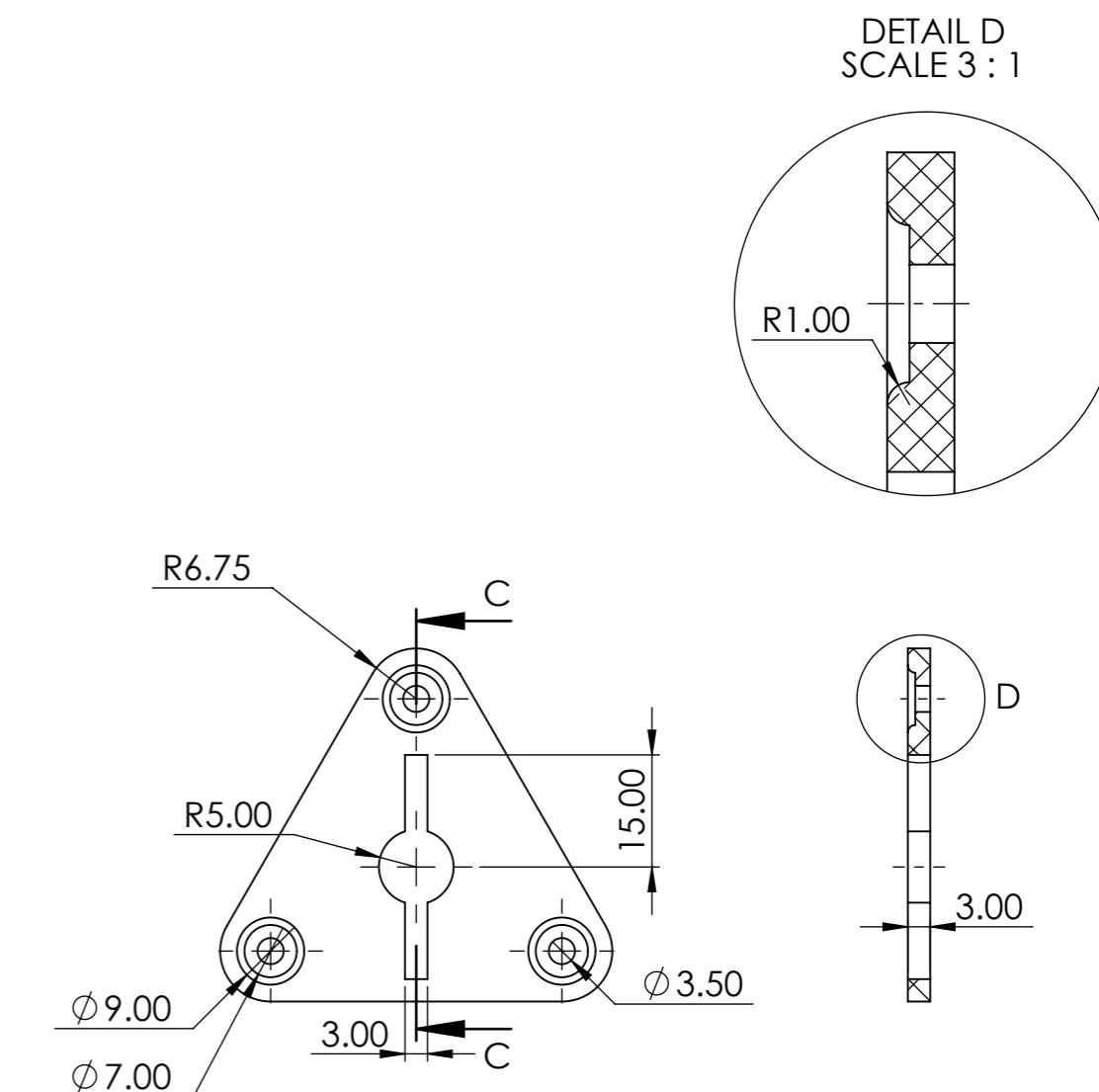
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DRAWN	NAME Adam Telfer	SIGNATURE	DATE 25/10/25		
CHK'D					
APP'D					
MFG					
Q.A				MATERIAL: Shaft: Aluminium Pin: Stainless Steel	DWG NO.
				WEIGHT:	SCALE: 2:1
					SHEET 5 OF 9
					A3
Title: Stage 1 Planet Shaft and Pin E-05					

Carrier - Stage 1



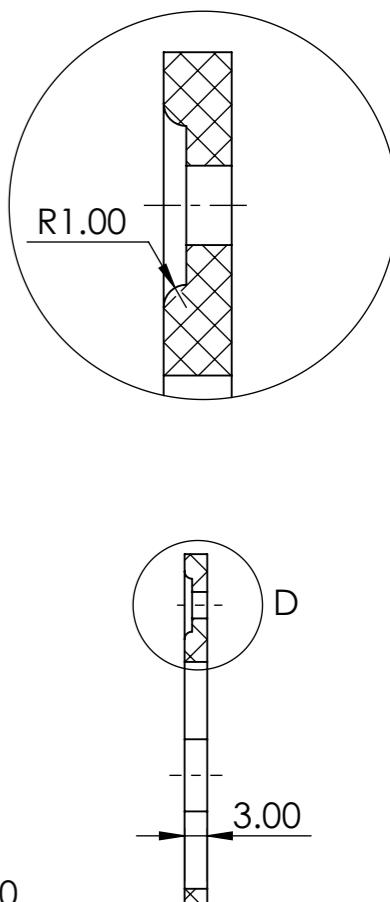
SECTION B-B

Carrier Retaining Plate - Stage 1



SECTION C-C

DETAIL D
SCALE 3 : 1



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:			FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
DRAWN	NAME	SIGNATURE	DATE			
CHK'D			25/10/25			
APP'D						
MFG						
Q.A						
				MATERIAL:	DWG NO.	
				3D Printed PLA	E-06	A3
				WEIGHT:	SCALE:1:1	
						SHEET 6 OF 9

Stage 1 Carrier and
Retainer Plate

E-06

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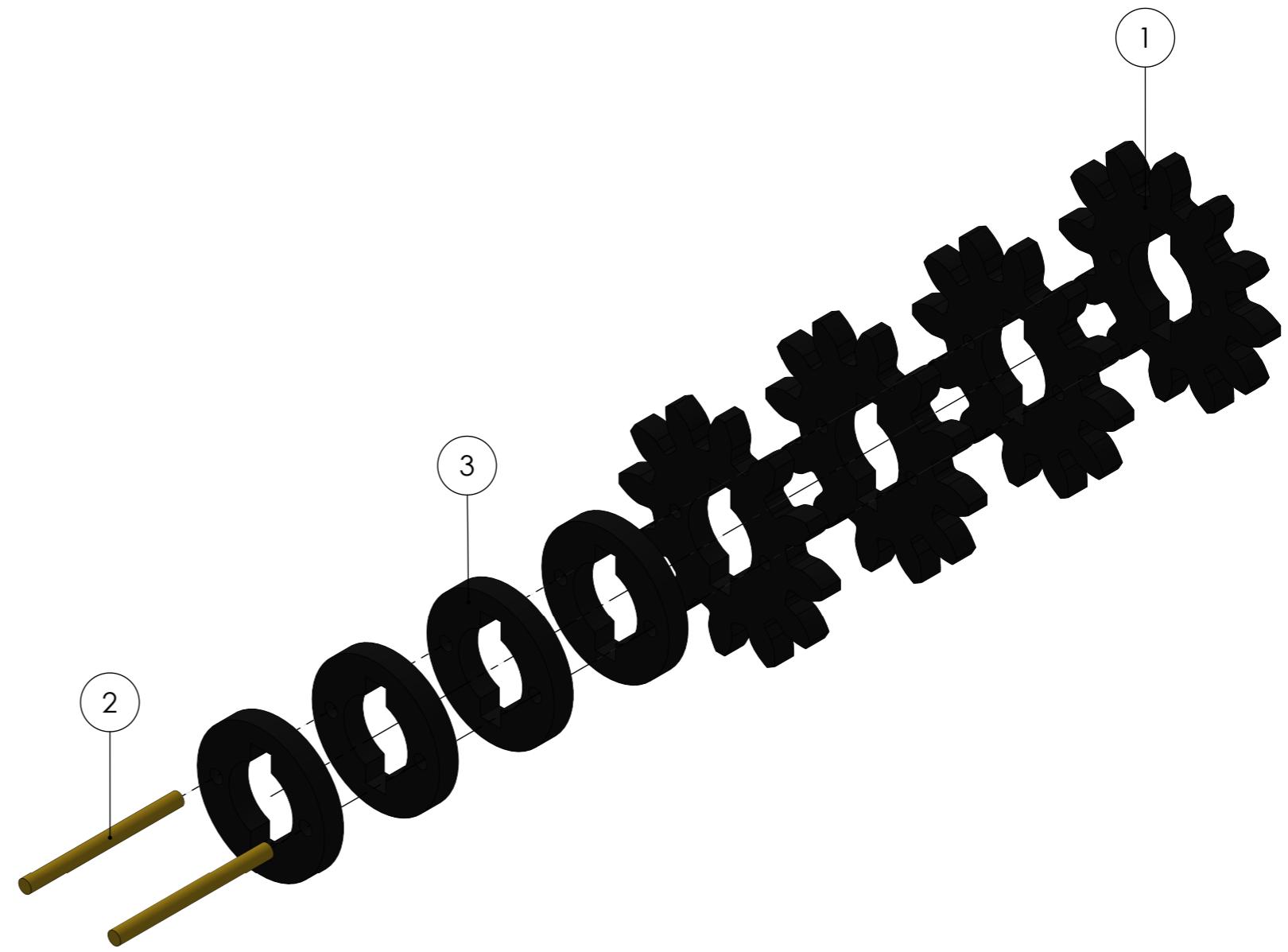
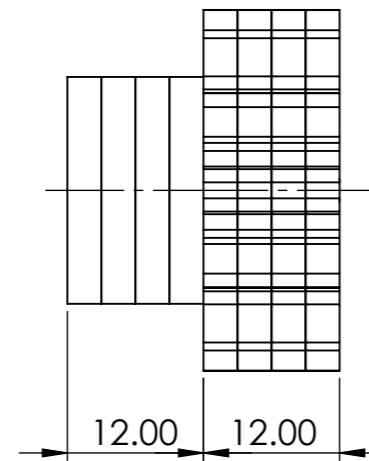
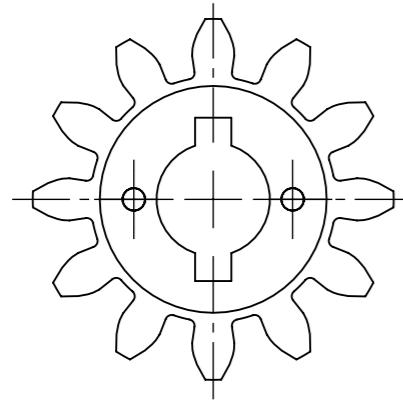
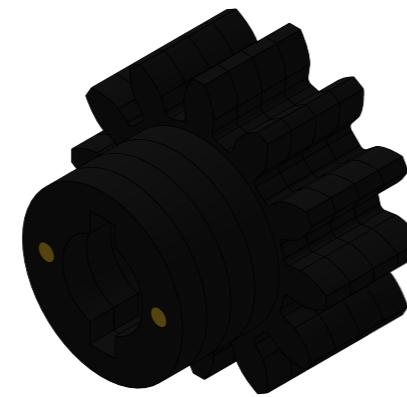
D

C

B

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	External_Spur_Gear	2.2727m12T	4
2	Alignment_Pin		2
3	Spacer	Planet Gear	4



Notes

Gears and spacers are laser cut from 3 mm acrylic sheet.
2D profiles are found on sheet E-09.

Alignment Pins are 2 mm brass rod that is oversized during assembly then cut flush to the gear face.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:		FINISH:		DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING		REVISION
DRAWN	NAME	SIGNATURE	DATE				
CHK'D							
APP'D							
MFG							
Q.A				MATERIAL:			
					DWG NO.		
				WEIGHT:	SCALE:3:2		
						SHEET 8 OF 9	

Stage 2 Sun Gear Assembly

E-08

A3

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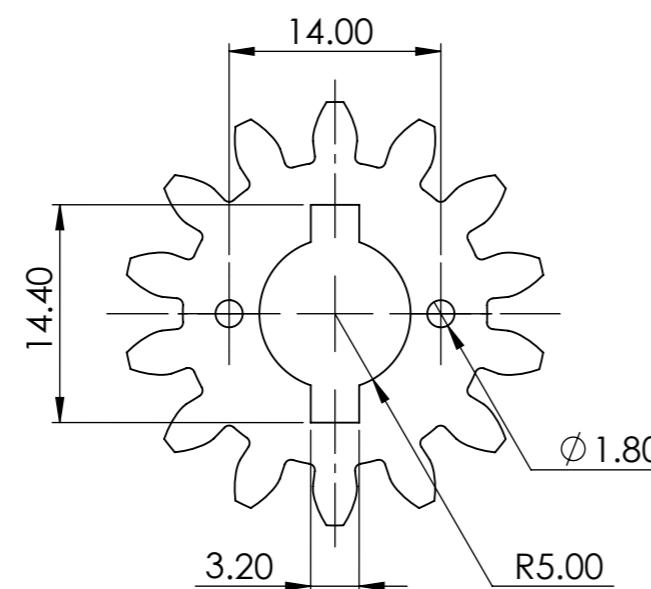
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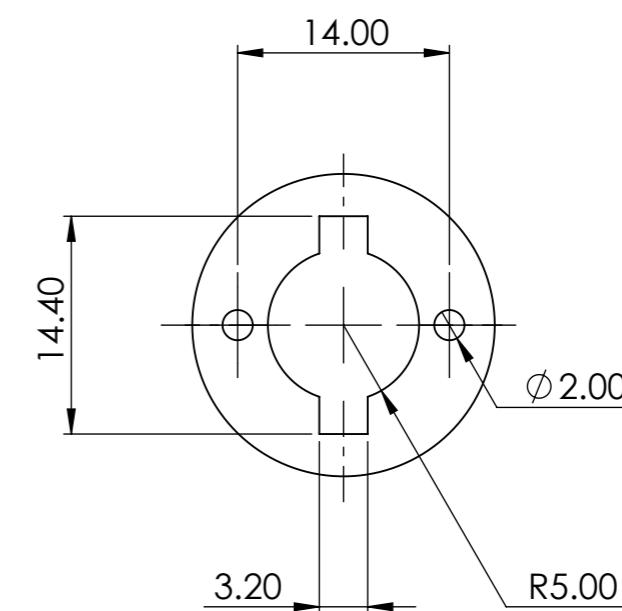
F

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Stage 2 - Sun	
Module	2.27
Teeth	12
Pressure Angle	20 deg



Spacer



Notes

Gears and spacer are laser cut from 3 mm acrylic sheet.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:	FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
DRAWN	NAME	SIGNATURE	DATE	
CHK'D			25/10/25	
APP'D				
MFG				
Q.A			MATERIAL:	DWG NO.
			Acrylic	E-09
			WEIGHT:	SCALE:3:2
				HEET 9 OF 9

Stage 2 Sun Gear Profiles

A3