

# Note:-

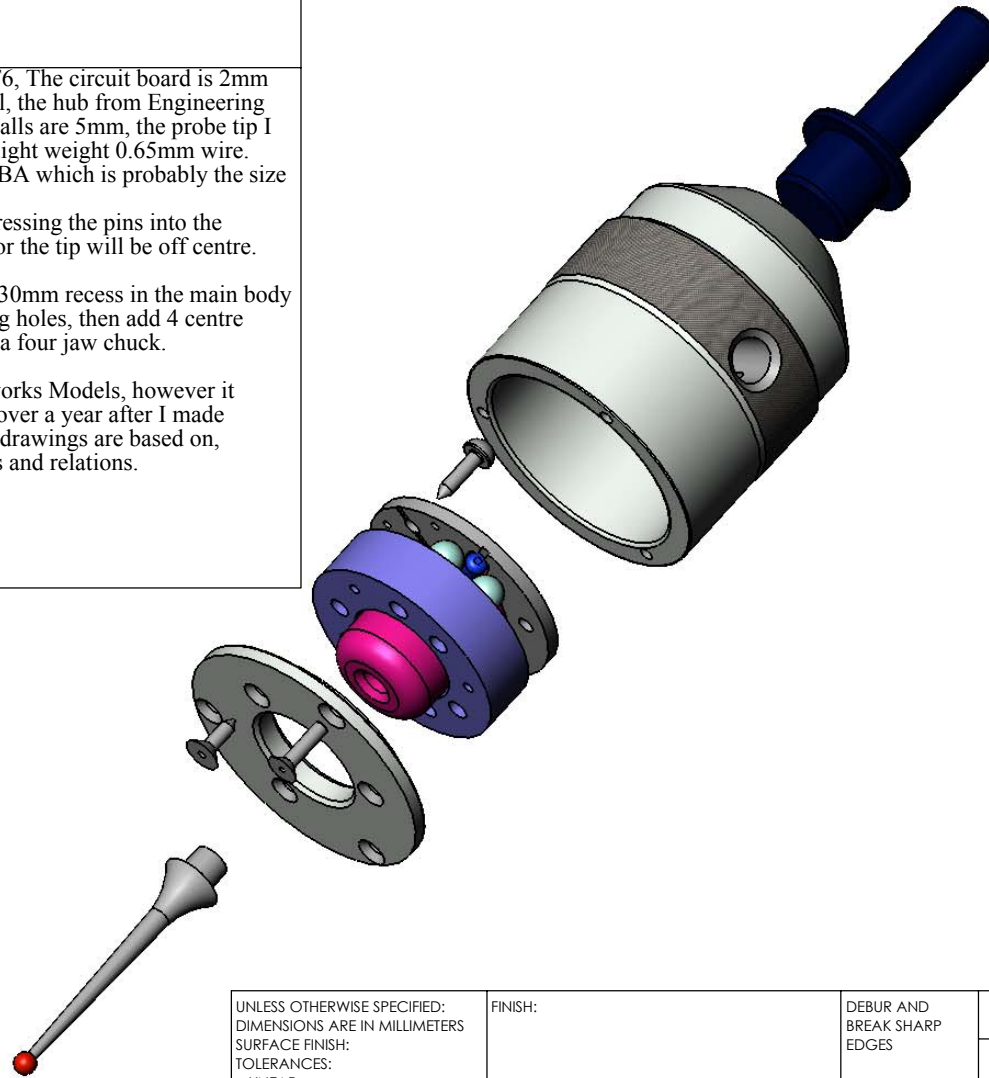
The body I made from Aluminium probably T6, The circuit board is 2mm copper clad fibre glass, the arbour is mild steel, the hub from Engineering Nylon 6/6, the pins are 3mm silver steel, the balls are 5mm, the probe tip I made from a carbide burr, the spring is fairly light weight 0.65mm wire. Screws are 2mm self tappers, and 2.5mm or 8BA which is probably the size I used, others parts came from the scrap bin.  
 The only part you have to be careful with is pressing the pins into the hub these must be square and @ 120 degrees or the tip will be off centre.

If you find it nesasary you could machine the 30mm recess in the main body "say" 31mm and elongate the platern mounting holes, then add 4 centre adjustment screws around the periphery as per a four jaw chuck.

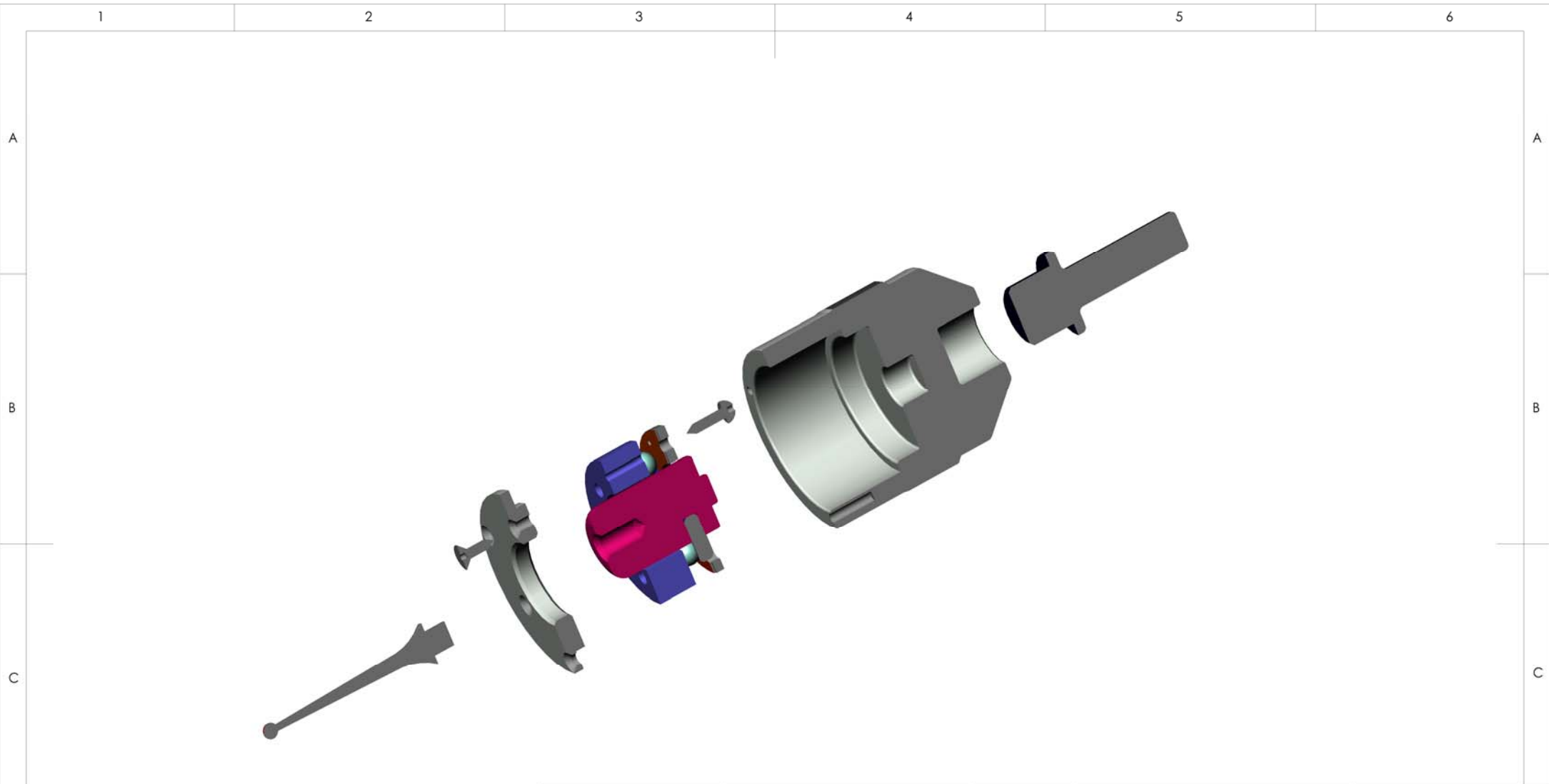
These drawings are produced from the Solidworks Models, however it should be noted that the models were created over a year after I made the actual prototype probe that these models / drawings are based on, consequently you should check all dimensions and relations.

Any question or comments contact me.....

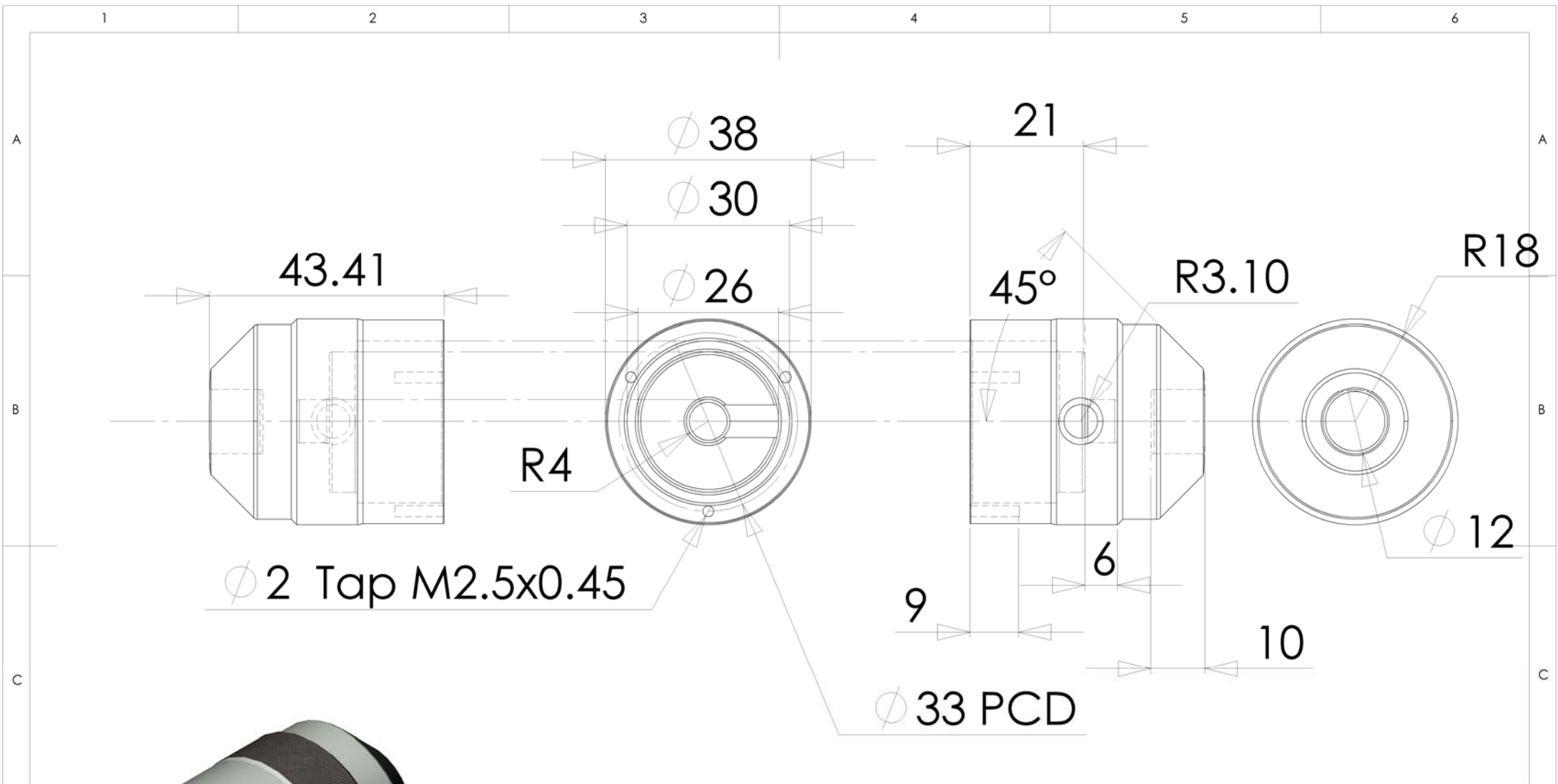
shaun.wainford@ntlworld.com



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:		FINISH:		DEBUR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION	
	NAME	SIGNATURE	DATE			©Shaun Wainford.  Drawn for the Mach-X Group Sept 2006 Question or comments to Email <a href="mailto:shaun.wainford@ntlworld.com">shaun.wainford@ntlworld.com</a>			
DRAWN									
CHK'D									
APPV'D									
MFG									
Q.A				MATERIAL: *****		DWG NO. SW_ProbeExplode		A4	
				WEIGHT:		SCALE:1:2		SHEET 1 OF 1	



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DRAWN									
CHK'D									
APPV'D									
MFG									
Q.A						MATERIAL:		DWG NO.	
						*****		SW_ProbeSection	
						WEIGHT:		SCALE:1:2	
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	NAME	SIGNATURE	DATE		
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APPV'D					
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Q.A					
				MATERIAL:	
				<b>Aluminium T6</b>	
				WEIGHT:	

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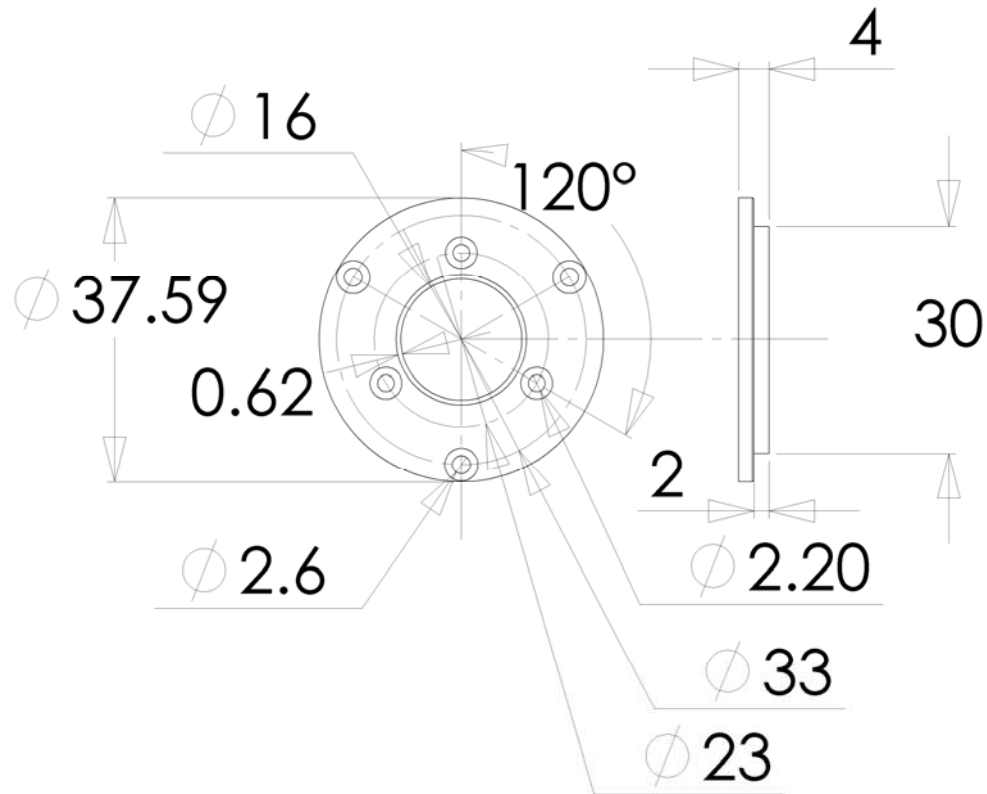
DWG NO.

SW\_Probe\_Body

A4

SCALE:1:1

SHEET 1 OF 1



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APPV'D					
MFG					
Q.A					
				MATERIAL:	
				<b>Aluminium T6</b>	
				WEIGHT:	

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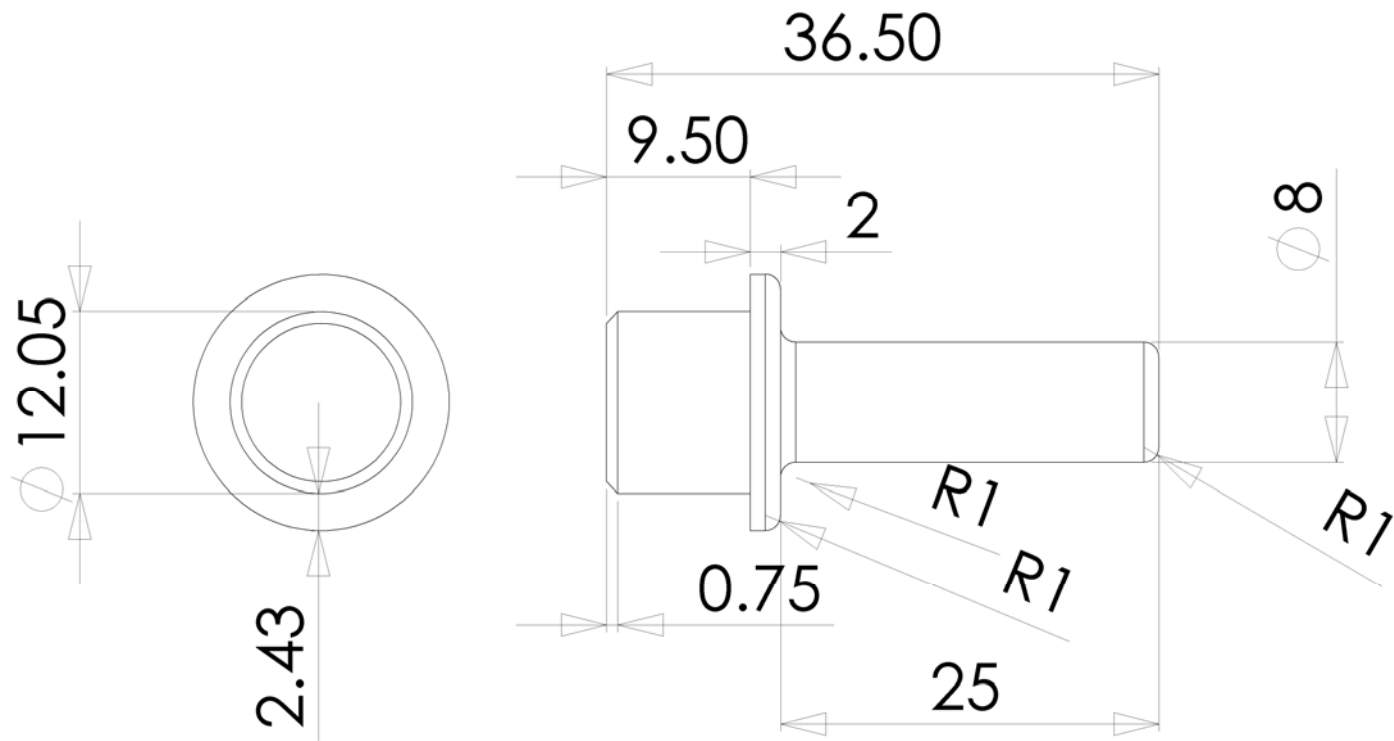
DWG NO.

SW\_Probe\_Cap

A4

SCALE:1:1

SHEET 1 OF 1



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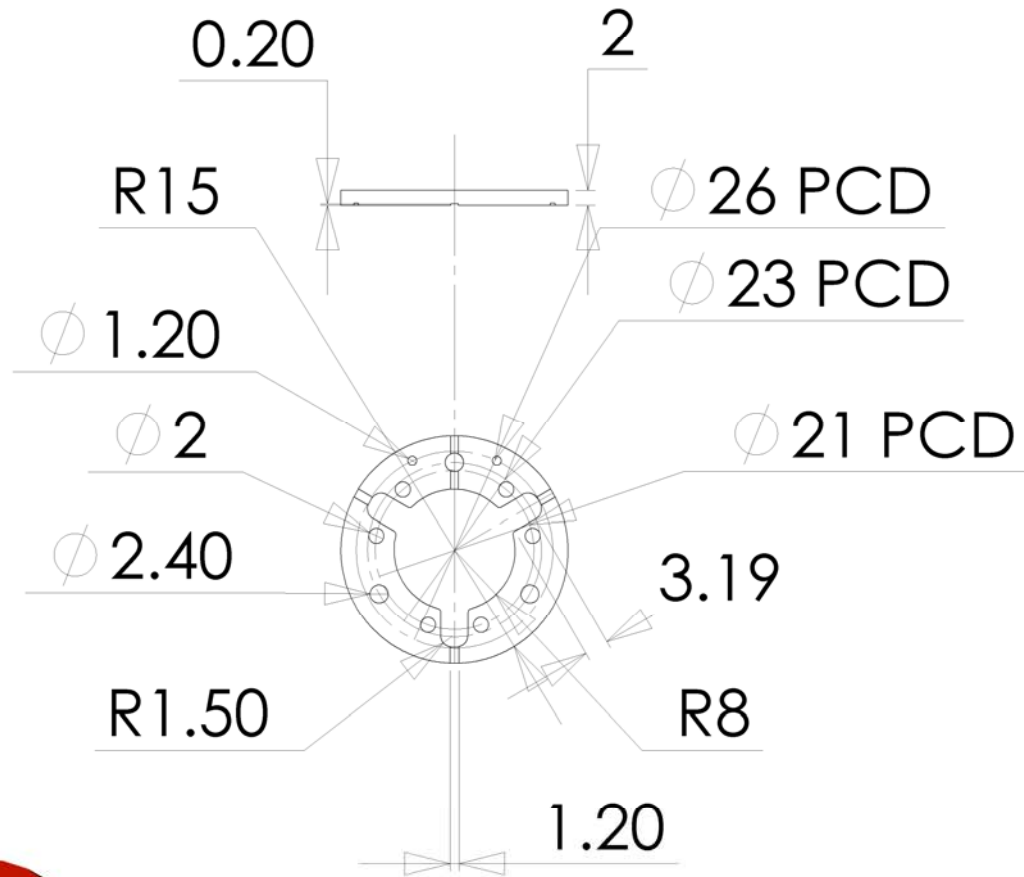
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MATERIAL:  
**Mild Steel**

DWG NO. **SW\_Probe\_Arbour** A4

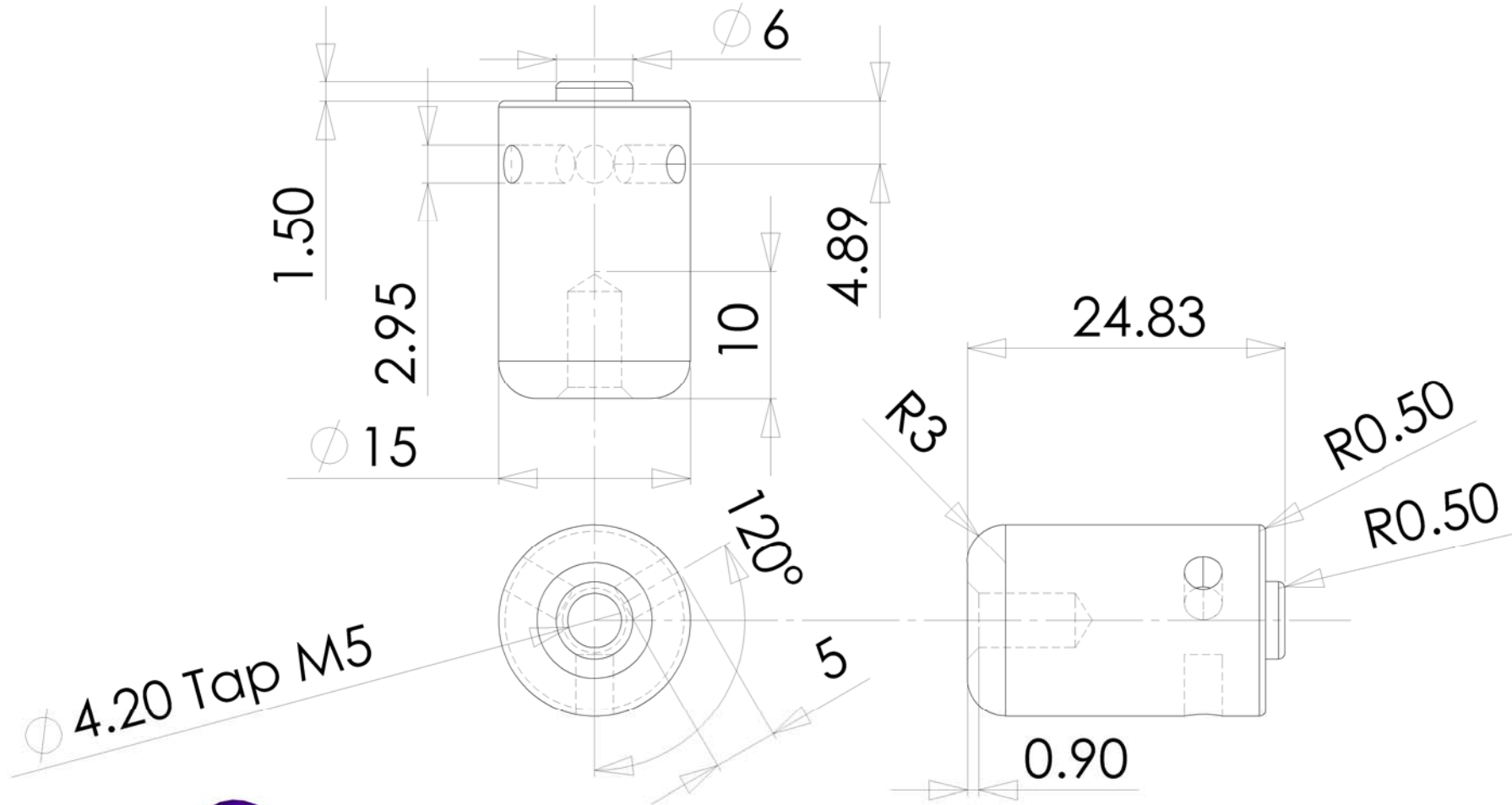
WEIGHT:

SCALE: SHEET 1 OF 1



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DRAWN	NAME	SIGNATURE	DATE	
CHK'D				
APPV'D				
MFG				
Q.A				MATERIAL: <b>Copper Clad Fibre Glass Board</b>
				WEIGHT:

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DWG NO. <b>SW_Probe_CircBoard</b>	A4
SCALE:1:1	SHEET 1 OF 1



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MFG			
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MATERIAL:  
**Nylon 6/6**

DWG NO.

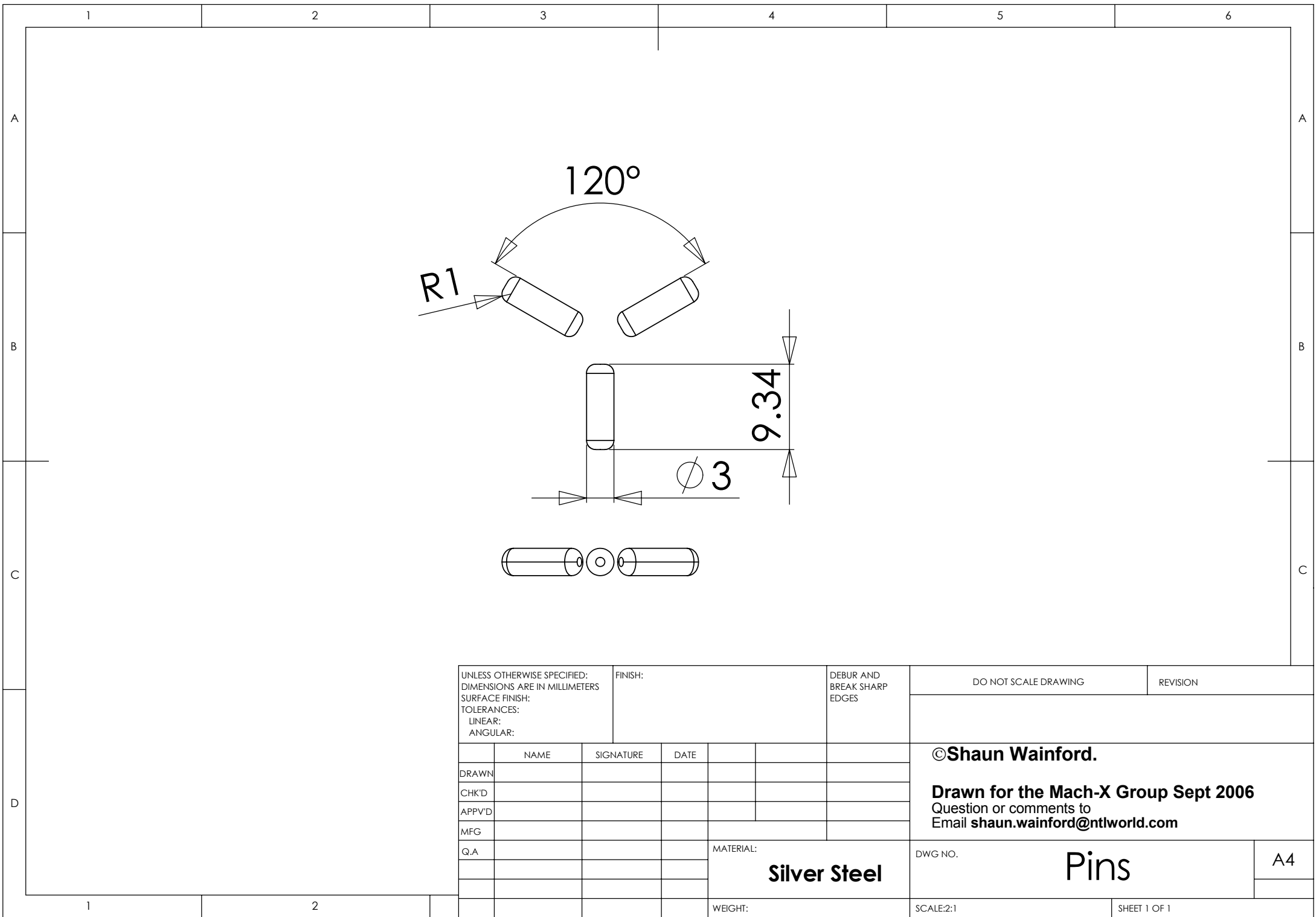
**Hub**

A4

WEIGHT:

SCALE:2:1

SHEET 1 OF 1



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MATERIAL:  
**Silver Steel**

DWG NO. **Pins** A4

WEIGHT:

SCALE:2:1

SHEET 1 OF 1



1 2 3 4 5 6

A

A

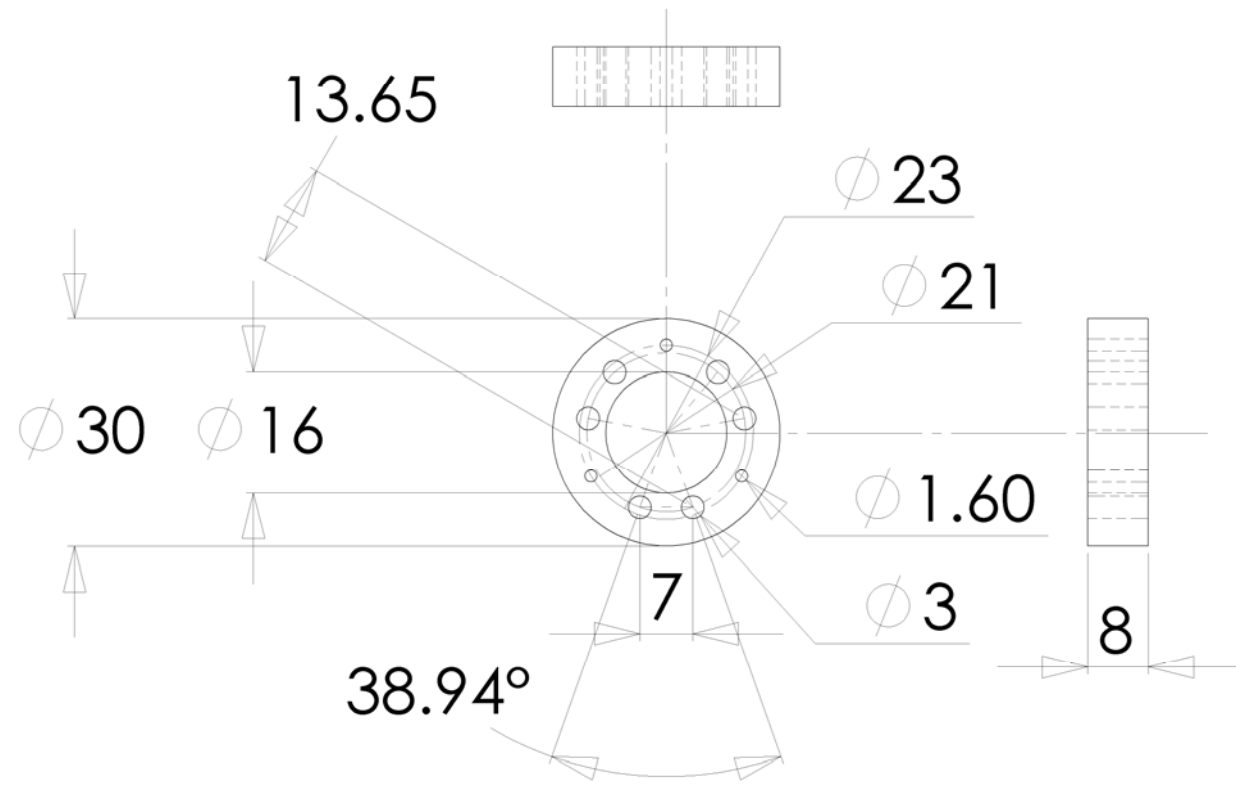
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C

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D



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	NAME	SIGNATURE	DATE		
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MFG					
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				MATERIAL:	
				<b>Eng Nylon 6/6</b>	
				WEIGHT:	

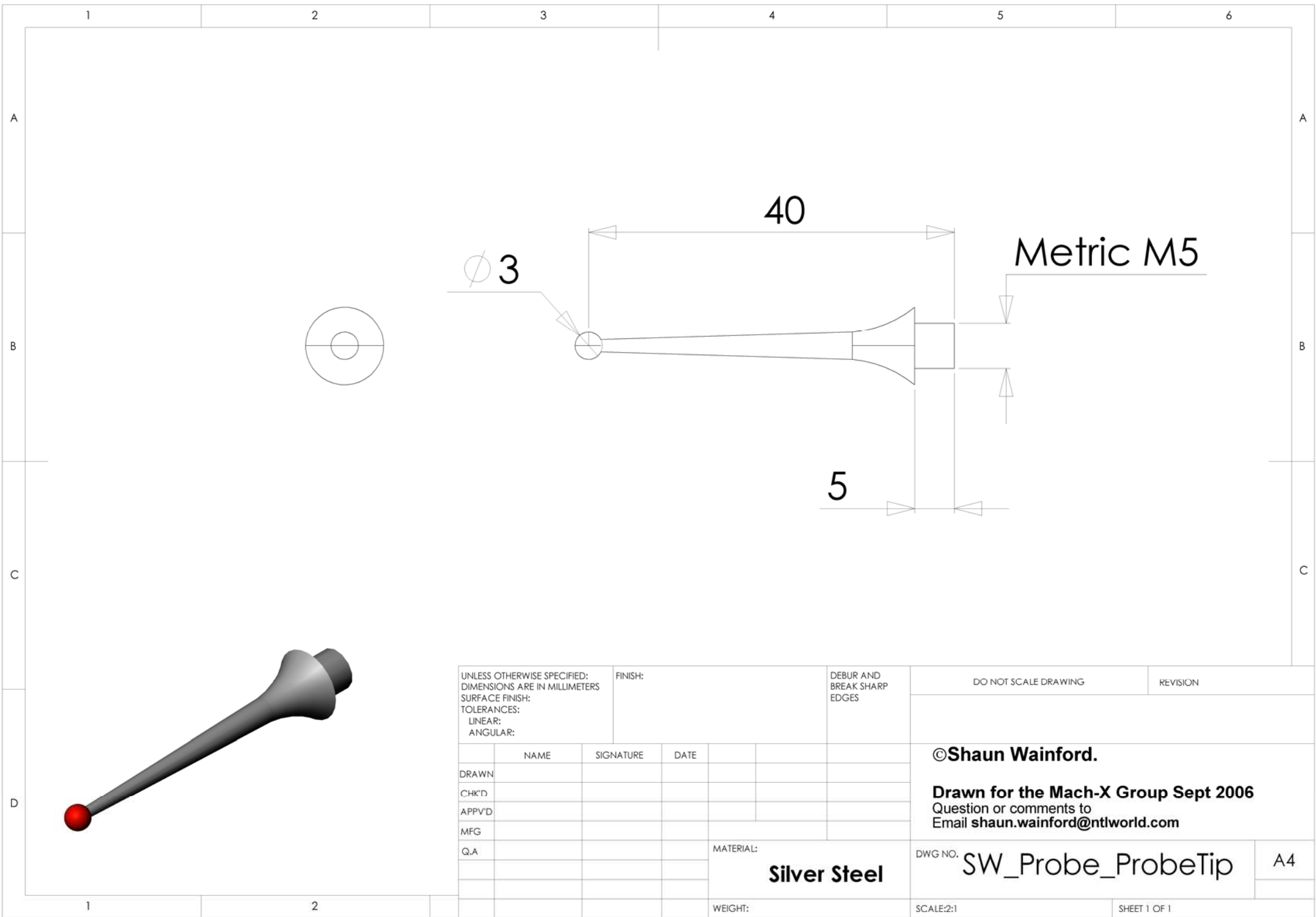
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DWG NO. **SW\_Probe\_Platern**

SCALE:1:1 SHEET 1 OF 1

A4

1 2



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APPV'D							
MFG							
Q.A							
					MATERIAL:		
					<b>Silver Steel</b>		
					WEIGHT:		

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DWG NO.	SW_Probe_ProbeTip		A4
SCALE:2:1	SHEET 1 OF 1		



Shaun Wainford. 2006.