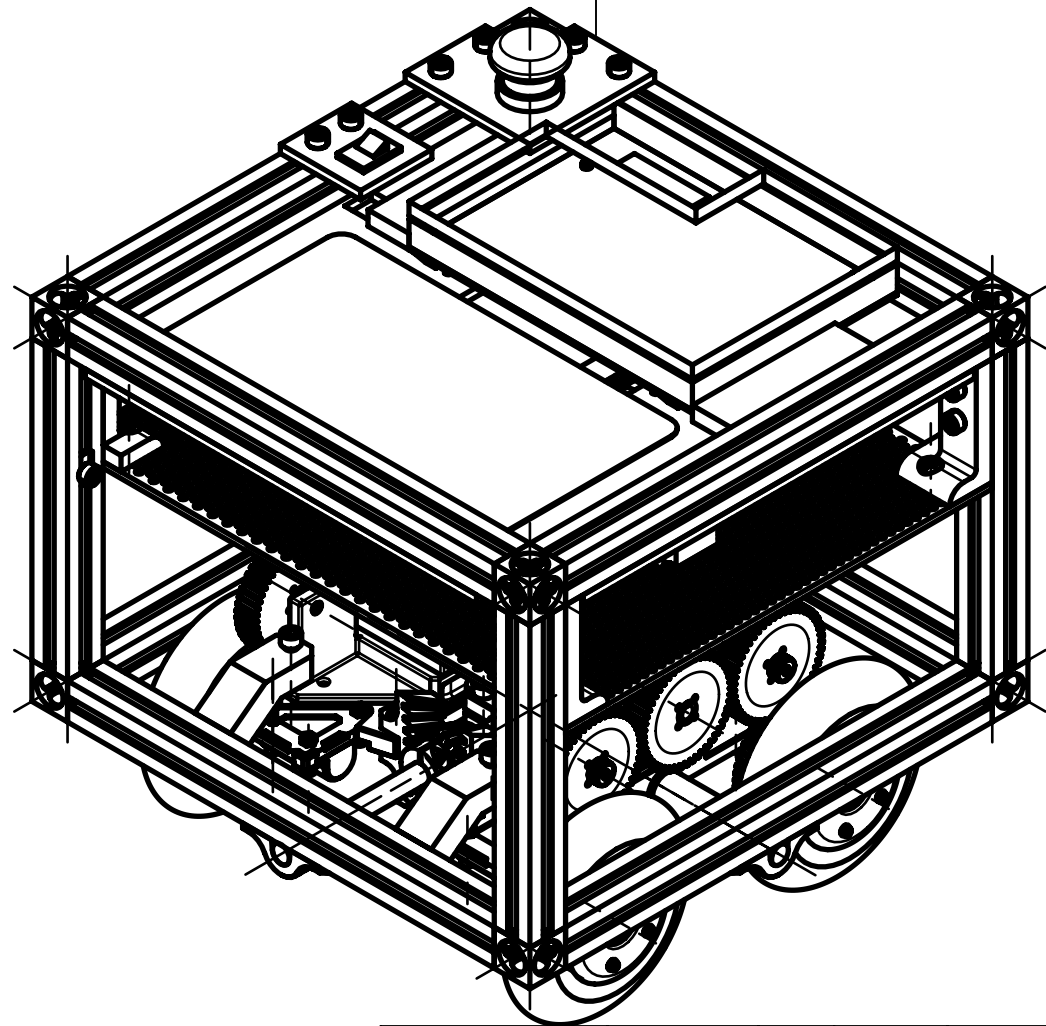
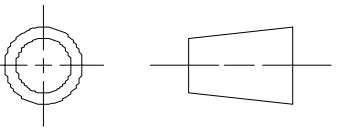


1

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4



A

A

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B

C

C

D

D



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FIRST ISSUED	4/30/21
DRAWN BY	MILLER, ANDREW
MATERIAL	VARIOUS
FINISH	NONE
REVIEWED BY	NA

TITLE		
CANTILEVER SUSPENSION ROBOT		
SIZE	DRG NO.	SHEET REV
A4	Cantilever_Suspension	A

ALL DIMENSIONS IN MM

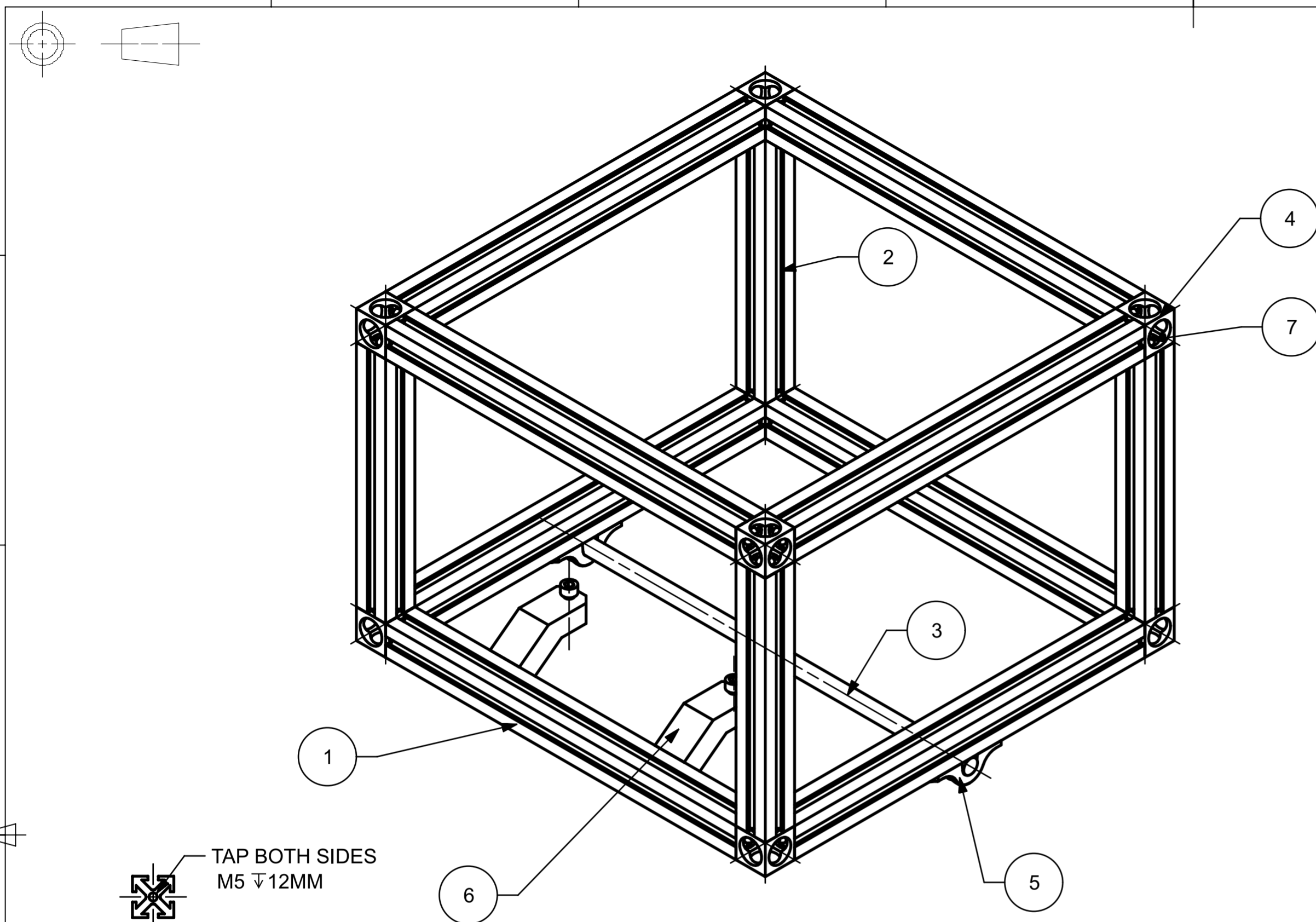
SCALE 1:3 SHEET 2 OF 2

1

2

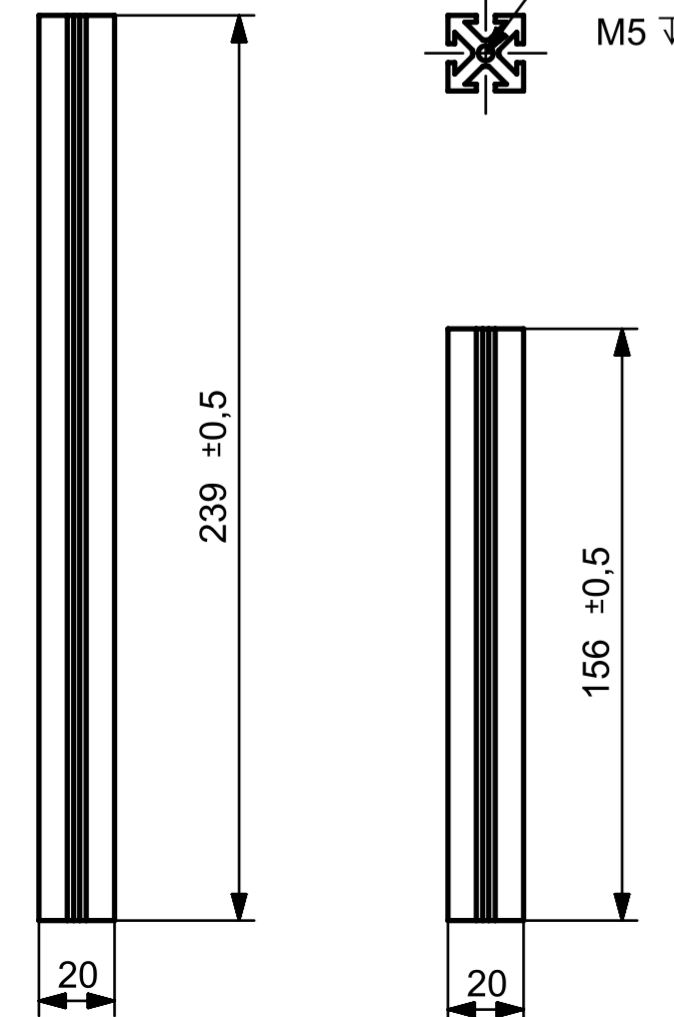
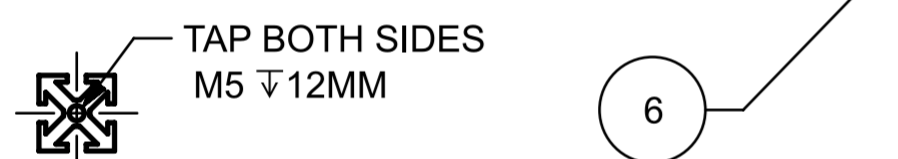
3

4

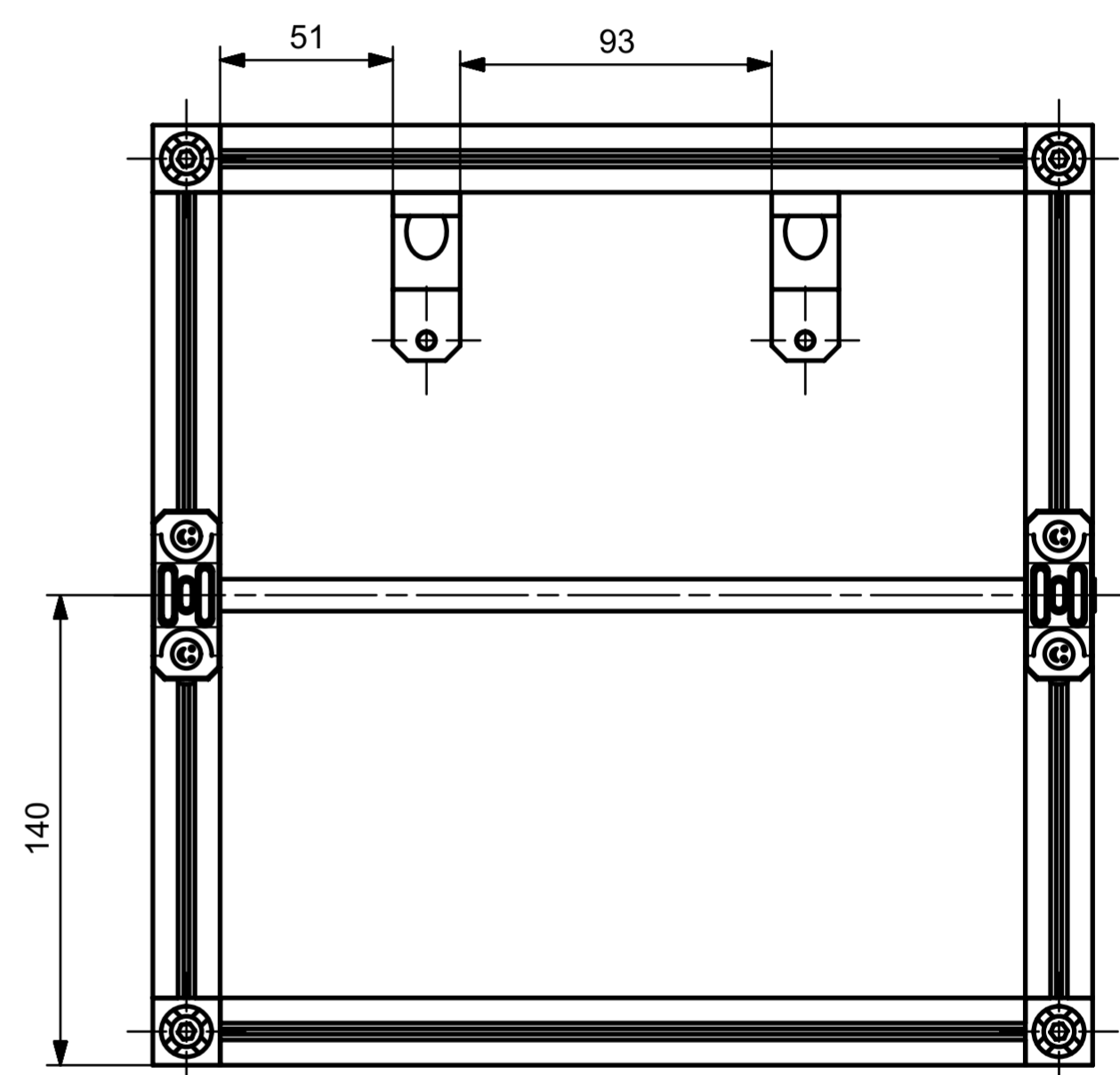


7	M5X8 ROUNDHEAD BOLT	24
6	STOPBLOCK	2
5	SUSPENSION_PILLOW_CLAMP	2
4	CORNERS	8
3	SUSPENSION_ROD_MCM_8920K135	1
2	8020_SHORT	4
1	8020_LONG	8
PC NO	PART NAME	QTY

SEE ASSOCIATED DRAWING FOR ANY CHILD ASSEMBLIES




DIMENSIONS OF FRAME MEMBERS



ROUGH LOCATIONS OF THE CENTRAL AXLE AND STOPBLOCKS

IT IS RECOMENDED TO ASSEMBLE ONLY THE LOWER HALF OF THE FRAME BEFORE BUILDING UP THE SUSPENSION. THIS ALLOWS FOR THE ACRYLIC SIDE PANELS TO BE SLID IN WITHOUT HAVING TO DISSASSEMBLE THE FRAME

		UNIVERSITY OF ROCHESTER	
FIRST ISSUED	4/28/21	TITLE	
DRAWN BY	GAETAN FOISY	FRAME BASE ASSEMBLY	
MATERIAL	MISC	SIZE	DRG NO.
FINISH	NONE	A2	Frame_Cantilever
REVIEWED BY		SCALE 1:2	SHEET REV A
		SHEET 1 OF 1	

ALL DIMENSIONS IN MM

1

2

3

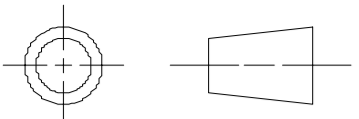
4

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3	6338K414_OIL-BEARING_STEP	2
2	SUSPENSION_OUTER_SPACER	1
1	SUSPENSION_FLIPPER	1
PC NO	PART NAME	QTY

A

A

B

B

C

C

D

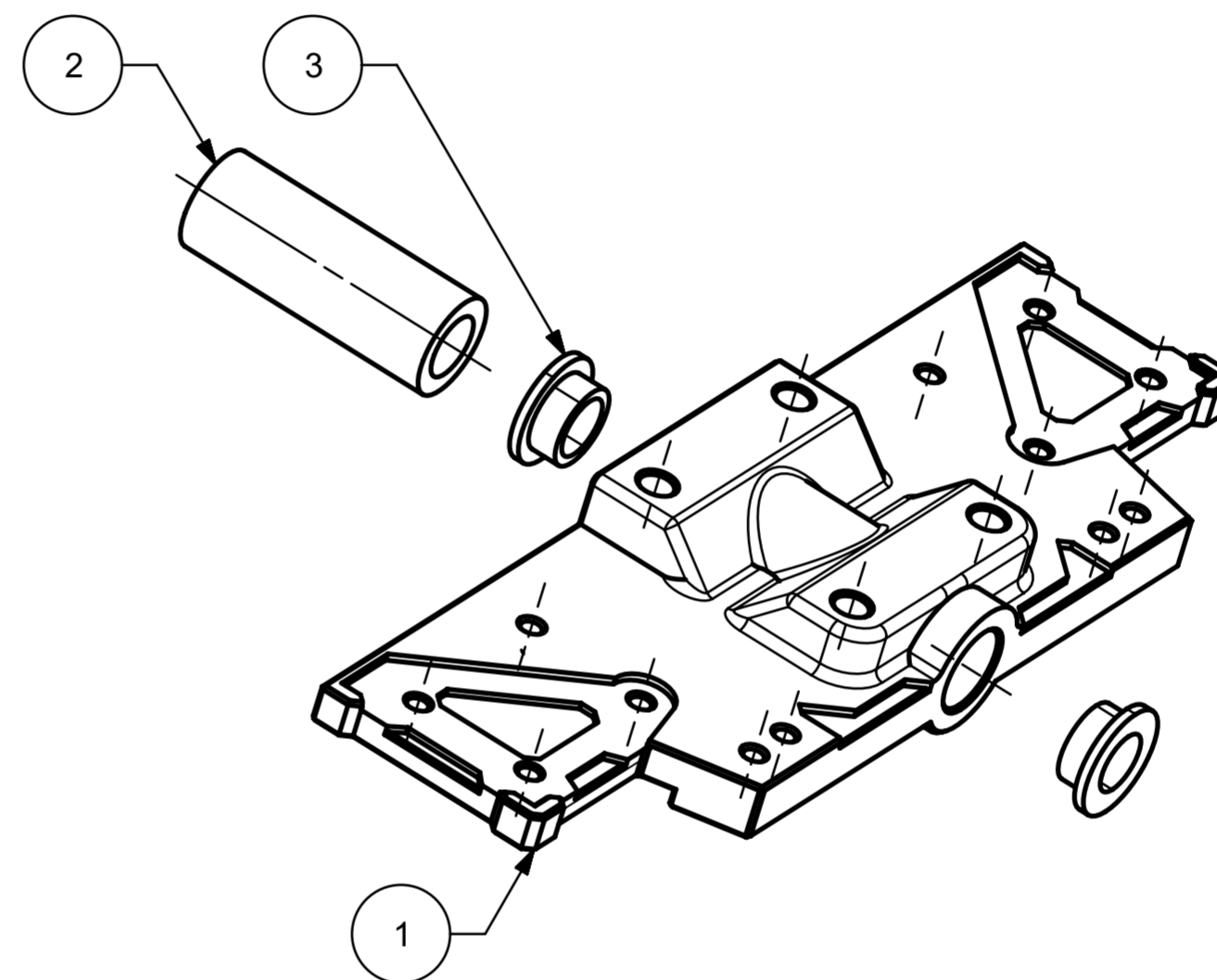
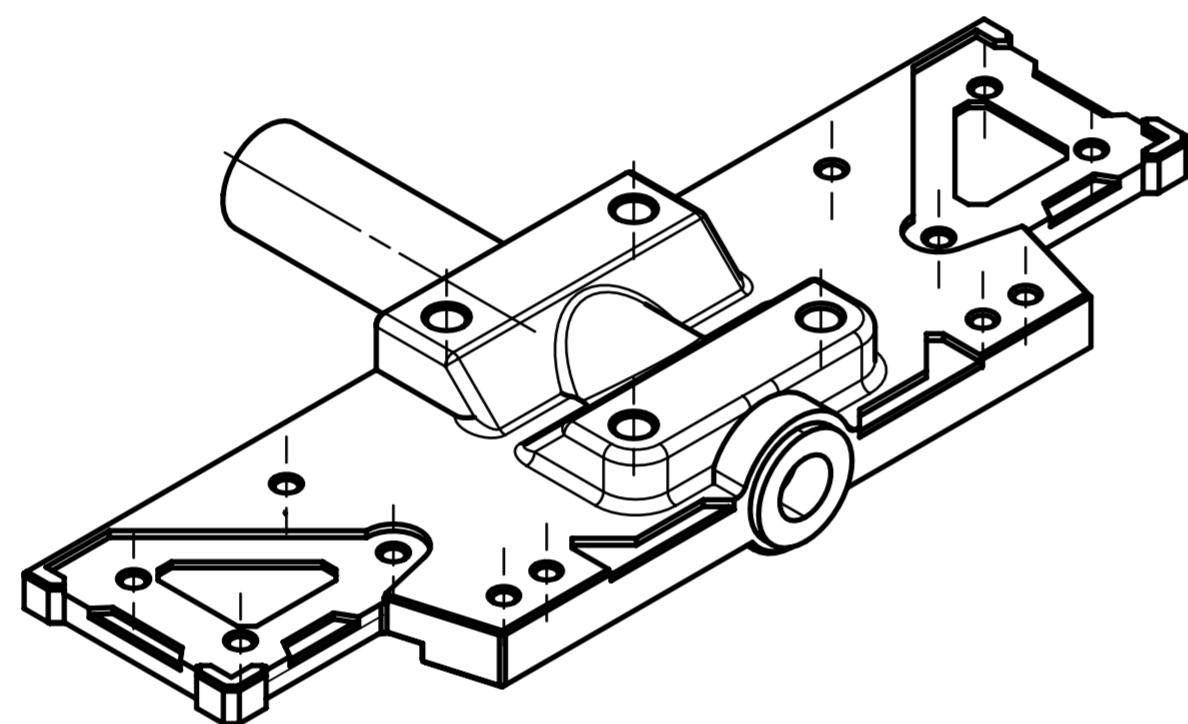
D

E

E

F

F



REF: Cantilever_Suspension



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/28/21
DRAWN BY	GAETAN FOISY
MATERIAL	N/A
FINISH	
REVIEWED BY	

TITLE		
SUSPENSION ASSEMBLY		
SIZE	DRG NO.	SHEET REV
A2	suspension_main_assembly	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN MM

1

2

3

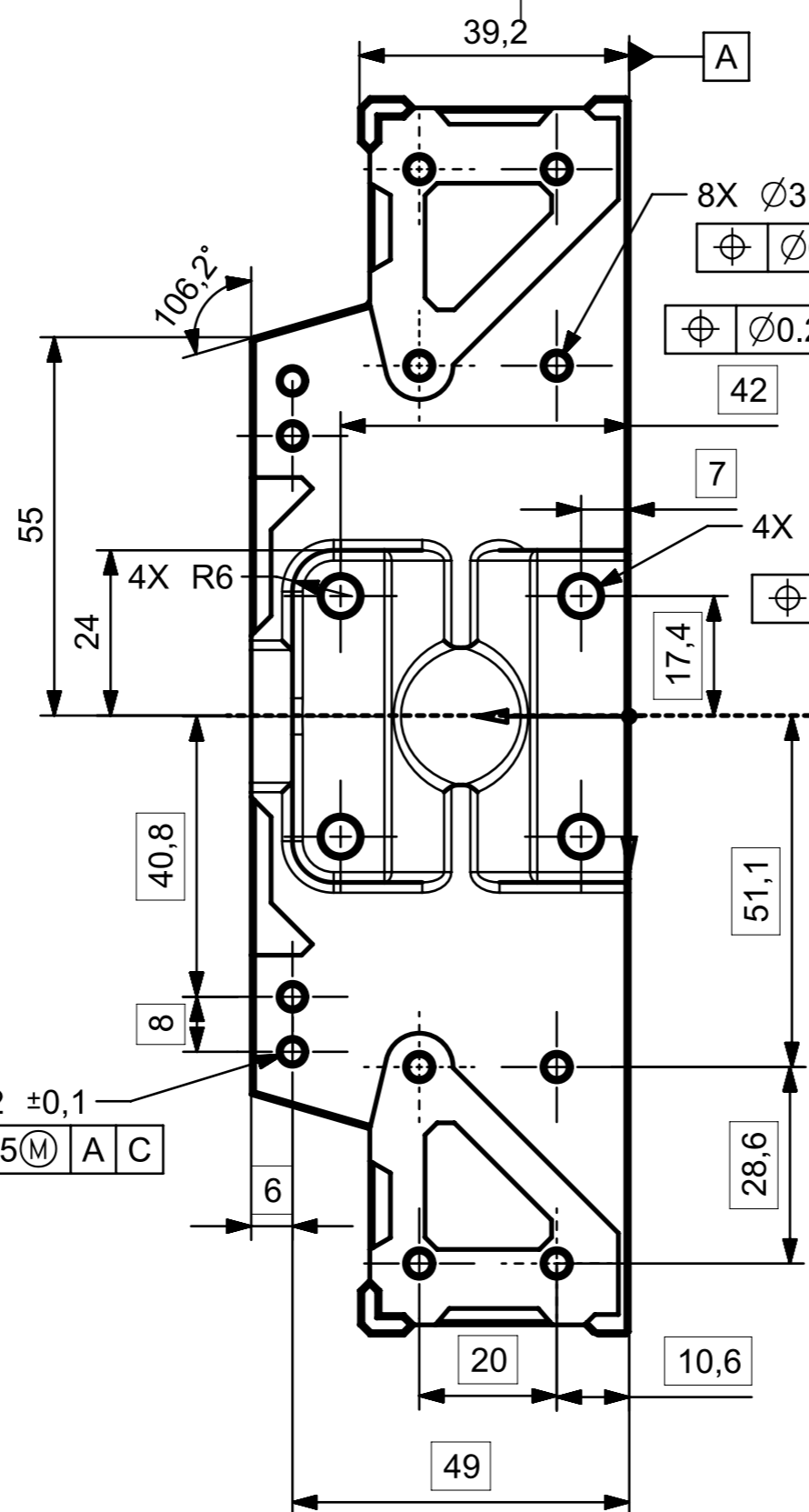
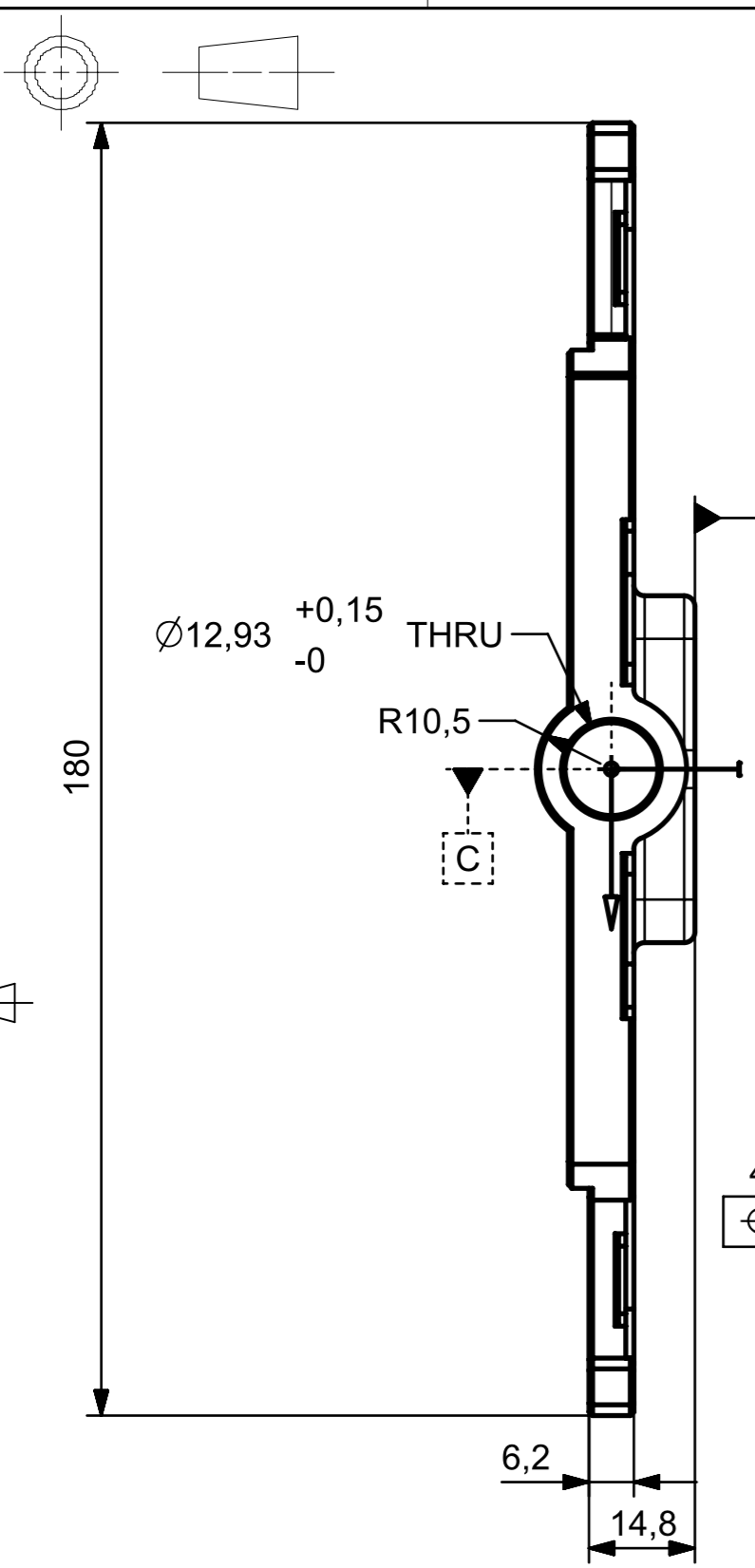
4

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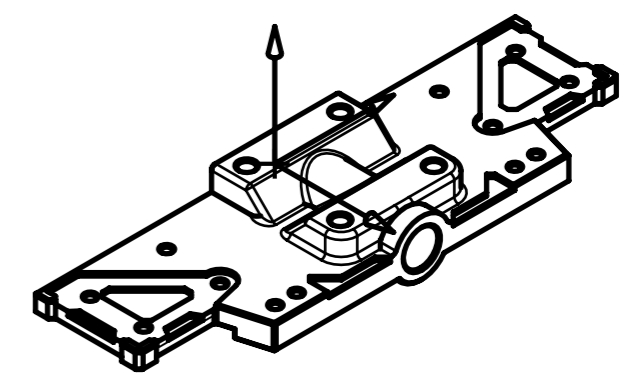
4X $\varnothing 3,2 \pm 0,1$
 $\varnothing 0.25(M)$ A C

8X $\varnothing 3,3 \pm 0,1$
 $\varnothing 0.25(M)$ A C

$\varnothing 0.25(M)$ A C

4X $\varnothing 5,3 \begin{matrix} +0,1 \\ -0,2 \end{matrix}$ THRU
 $\varnothing 0.25(M)$ A C

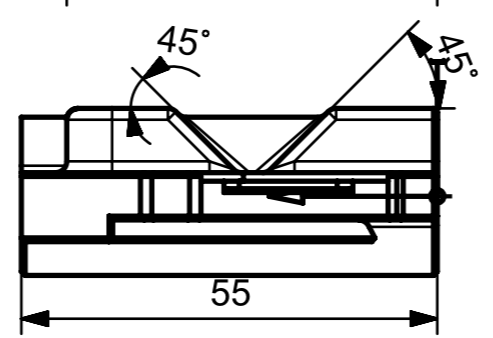
SYMMETRIC ABOUT LINE



UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ANY PARTS NOT DIMENSIONED ARE PURELY AESTHETIC
 ALL CHAMPHERS ARE 0.5x0.5mm



ALL DIMENSIONS IN MM



UNIVERSITY OF ROCHESTER

FIRST ISSUED	3/25/21	TITLE		
DRAWN BY	GAETAN FOISY	SUSPENSION FLIPPER		
MATERIAL	ABS PLASTIC	SIZE	DRG NO.	SHEET REV
FINISH	N/A	A3	Suspension_flipper	A
REVIEWED BY		SCALE 1:1		SHEET 1 OF 1

D

D

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A

A

B

B

C

C

1

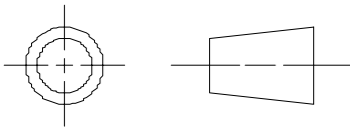
2

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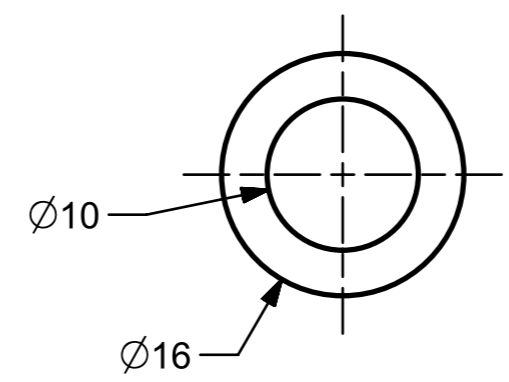
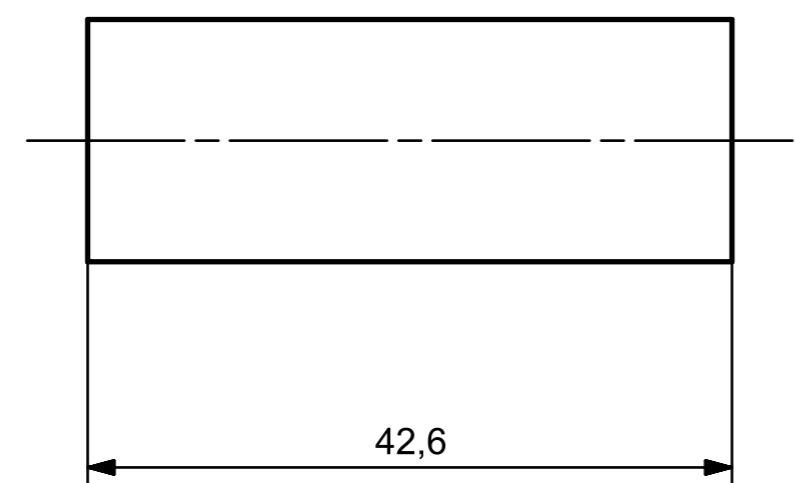


A

A

B

B



C

C

DEPENDING ON THE FIT, THIS PART MAY NEED TO BE LENGTHENED OR SHORENED. THIS CAN BE ACHIEVED BY MODIFYING THE CAD PRIOR TO PRINTING, OR SHIMMING AND SANDING.



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UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

FIRST ISSUED	3/28/21	TITLE		
DRAWN BY	GAETAN FOISY	SUSPENSION SPACER		
MATERIAL	ABS OR PVC			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY		A3	Suspension_outer_spacer	A
		SCALE 1:1	SHEET 1 OF 1	

ALL DIMENSIONS IN MM

1

2

3

4

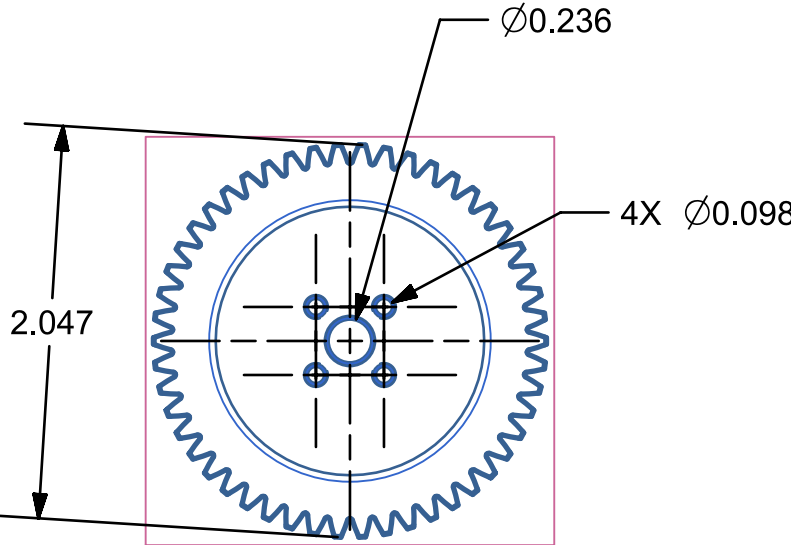
5

6

D

D

Adapted from McMaster part number 2662N433



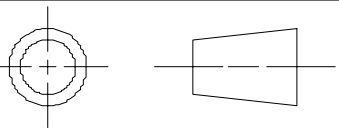
UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

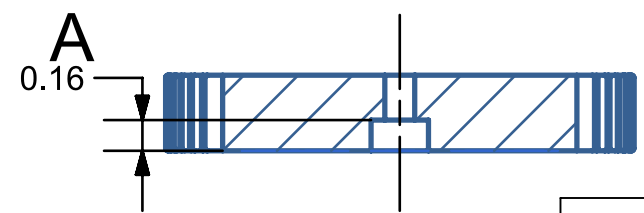
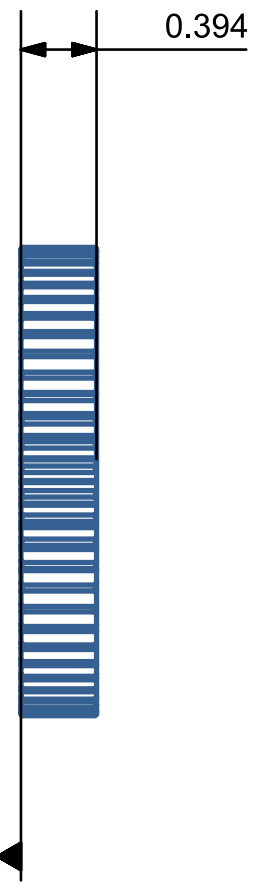
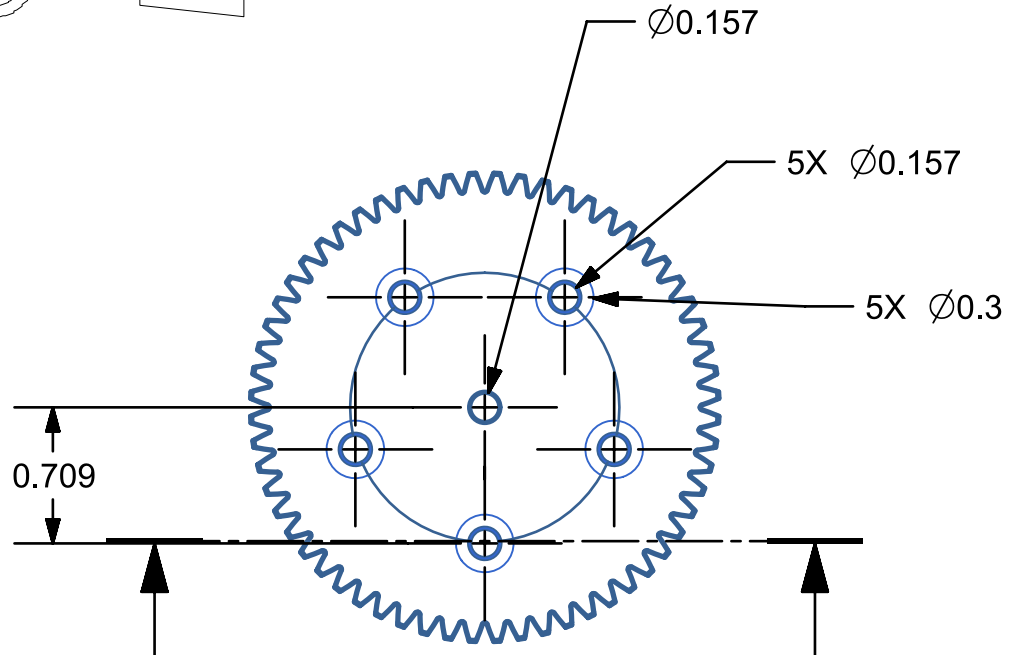
ANGLES $\pm 0.5^\circ$	X ± 0.025	X.X ± 0.020	X.XX ± 0.010	X.XXX ± 0.005
---------------------------	------------------	--------------------	---------------------	----------------------

FIRST ISSUED		4/30/21		TITLE 50MM GEAR		
DRAWN BY		MILLER, ANDREW				
MATERIAL		ABS				
FINISH		NONE				
REVIEWED BY		ALKINS		SIZE	DRG NO.	SHEET REV
				A	50mm_Gear	
				SCALE 1:1	SHEET 1 OF 1	

ALL DIMENSIONS IN INCHES



Adapted from McMaster part number 2662N435



SECTION A-A

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.025	± 0.020	± 0.010	± 0.005

ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/30/21	TITLE	
DRAWN BY	MILLER, ANDREW	60MM GEAR	
MATERIAL	ABS		
FINISH	NONE	SIZE	DRG NO.
REVIEWED BY	ALKINS	A	60mm_Gear
		SCALE 1:1	SHEET 1 OF 1

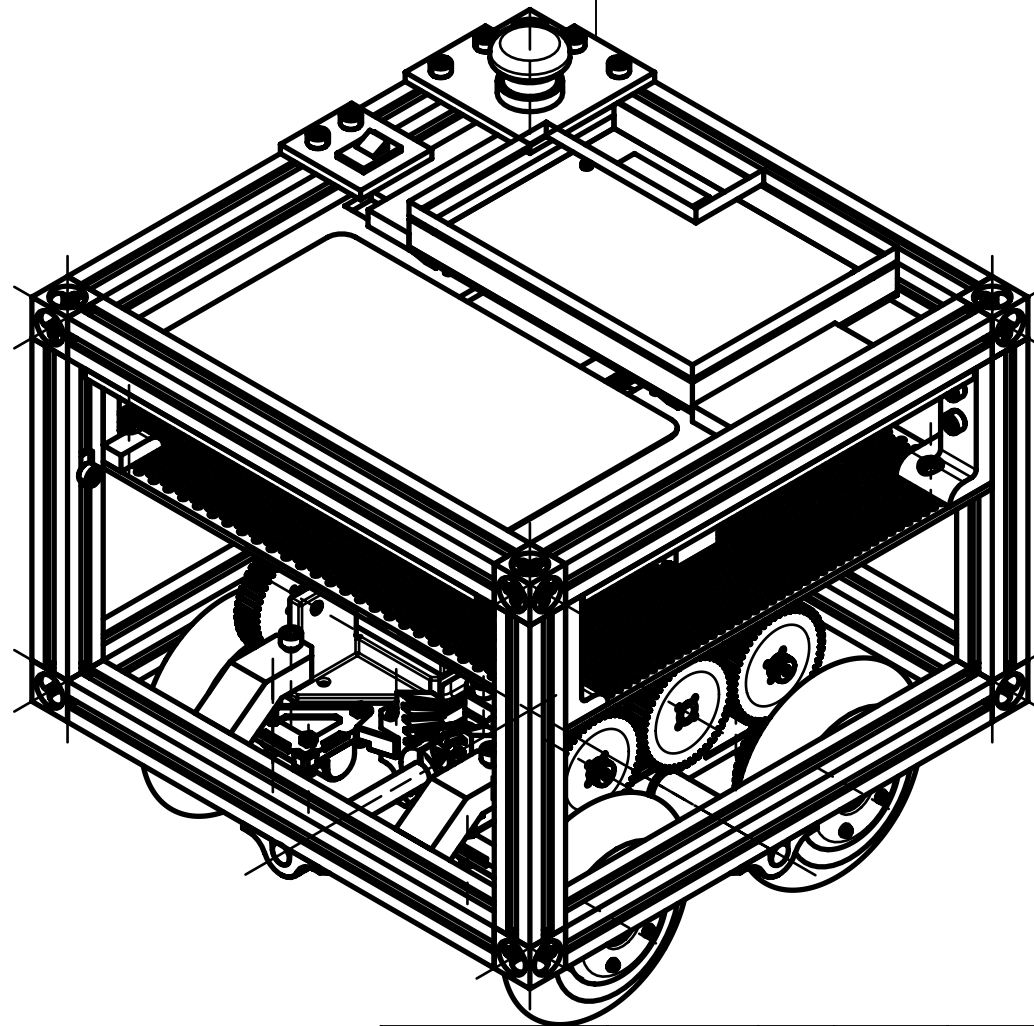
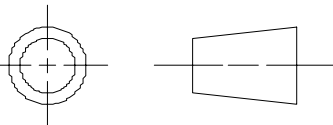
TITLE		60MM GEAR	
SIZE	DRG NO.	SHEET REV	
A	60mm_Gear	A	
SCALE 1:1			SHEET 1 OF 1

1

2

3

4



A

A

B

B

C

C

D

D



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/30/21
DRAWN BY	MILLER, ANDREW
MATERIAL	VARIOUS
FINISH	NONE
REVIEWED BY	NA

TITLE		
CANTILEVER SUSPENSION ROBOT		
SIZE	DRG NO.	SHEET REV
A4	Cantilever_Suspension	A

ALL DIMENSIONS IN MM

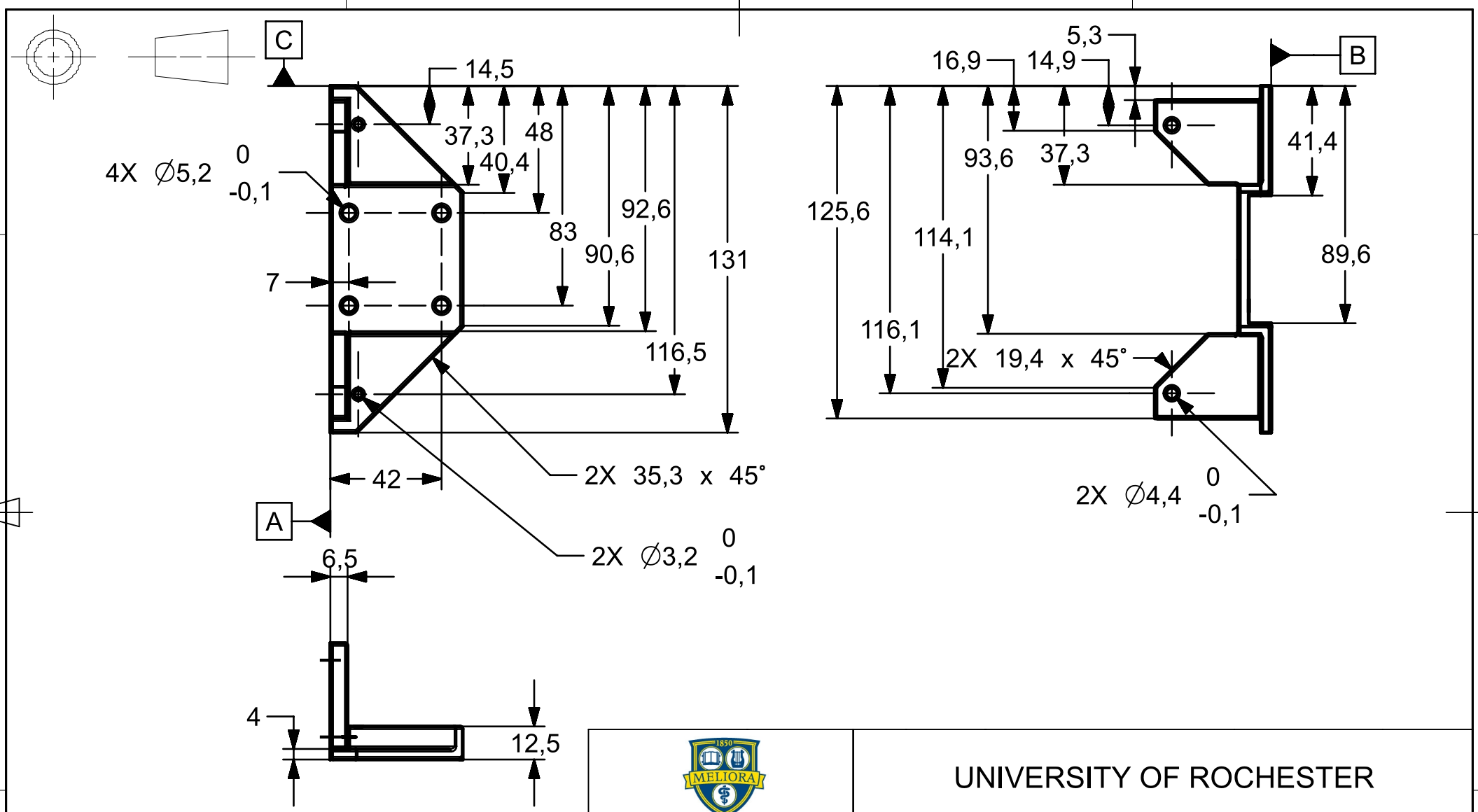
SCALE 1:3	SHEET 2 OF 2
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1

2

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4



UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/29/21
DRAWN BY	MILLER, ANDREW
MATERIAL	ABS
FINISH	NONE
REVIEWED BY	ALKINS

TITLE	
DRIVETRAIN	
SIZE	DRG NO.
A4	Drivetrain
SHEET REV	
A	

SCALE 1:2 SHEET 1 OF 1

1

2

3

4

A

A

B

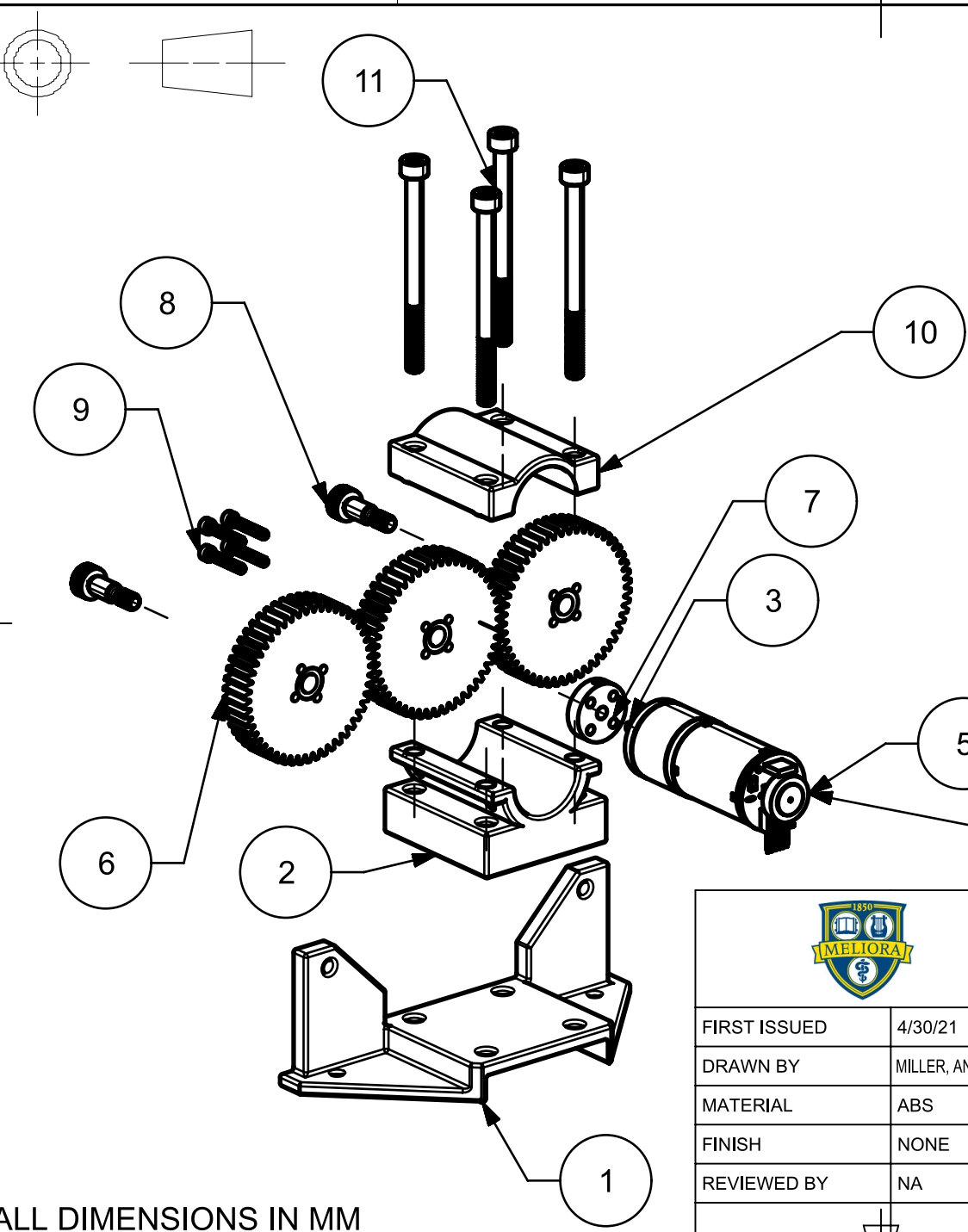
B

C


C

D

D



11	MOTORMOUNTINGCAPSCREW_STE P	4
10	MOTOR_COVER	1
9	91251A112_BLACK-OXIDE ALLOY STEEL SOCKET HEAD CAP SCREW_STEP	4
8	10MM_SHOULDER_SCREW	2
7	MOTOR_SHAFT_MOUNT	1
6	50MM_GEAR	3
5	POLOLU_DC_GEARMOTOR_PA	1
4	POLOLU_DC_GEARMOTOR_WITH_E NODER_PA	1
3	POLOLU_DC_GEARMOTOR_WITH_E NODER_PB	1
2	MOTOR_MOUNT	1
1	DRIVETRAIN	1
PC NO	PART NAME	QTY

		UNIVERSITY OF ROCHESTER	
FIRST ISSUED	4/30/21	TITLE	
DRAWN BY	MILLER, ANDREW		
MATERIAL	ABS	DRIVETRAIN ASSEMBLY	
FINISH	NONE		
REVIEWED BY	NA	SIZE	DRG NO.
		A4	DrivetrainAssy
		SCALE 1:2	SHEET 1 OF 1

ALL DIMENSIONS IN MM

1

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4

1

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4

A

A

B

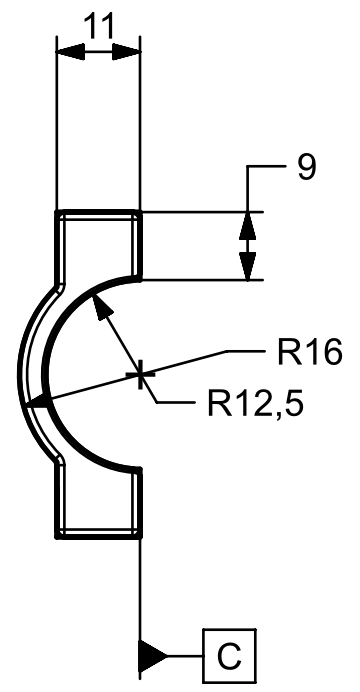
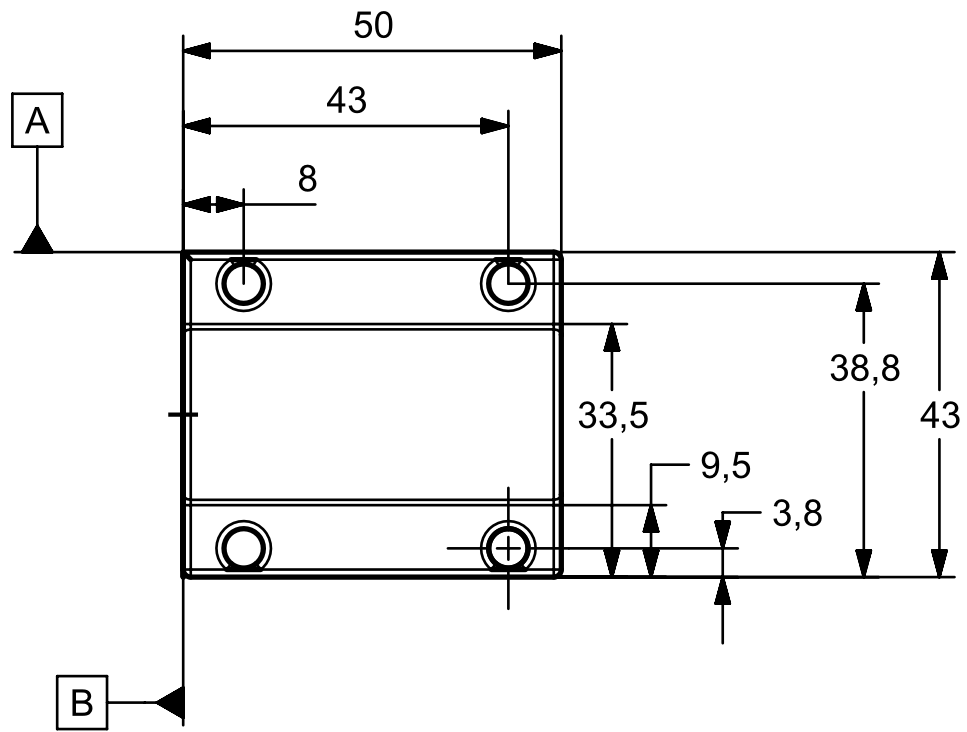
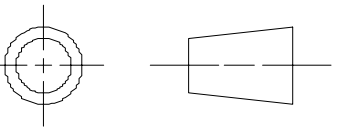
B

C

C

D

D



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/29/21
DRAWN BY	MILLER,ANDREW
MATERIAL	ABS
FINISH	NONE
REVIEWED BY	ALKINS

TITLE		
MOTOR COVER		
SIZE	DRG NO.	SHEET REV
A4	Motor_cover	A

ALL DIMENSIONS IN MM

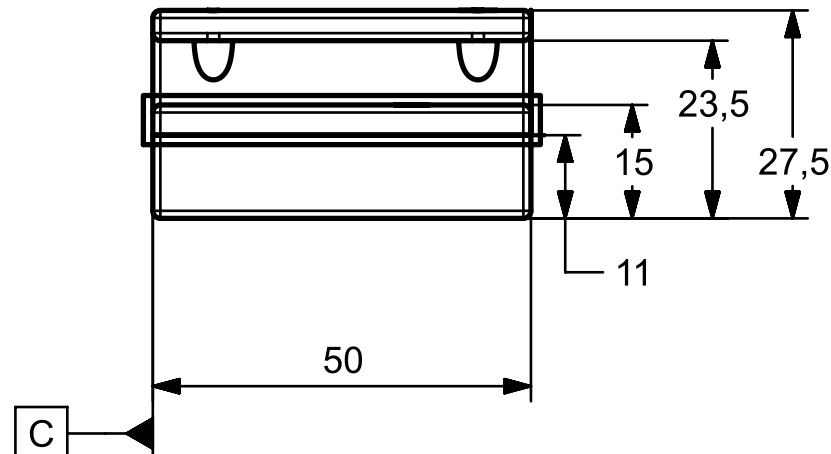
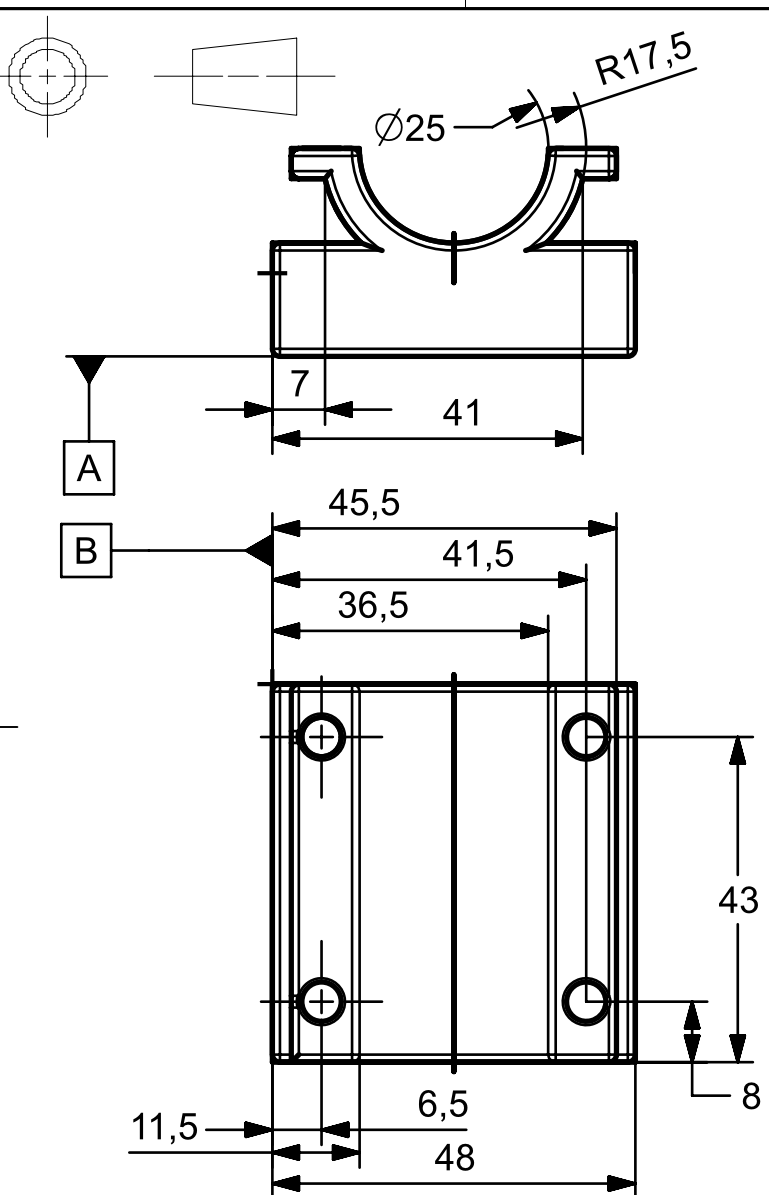
SCALE 1:1 SHEET 1 OF 1

1

2

3

4



UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM

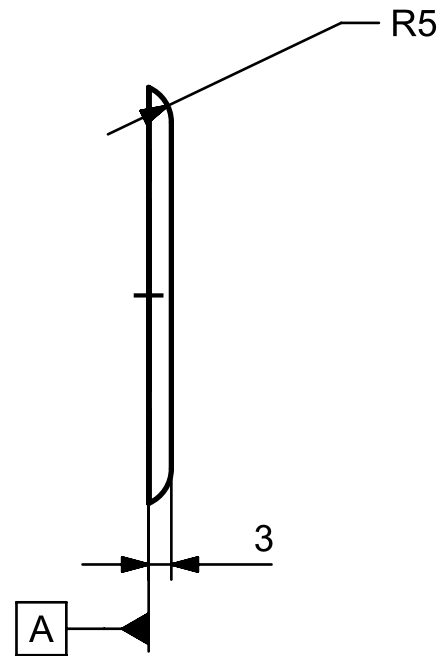
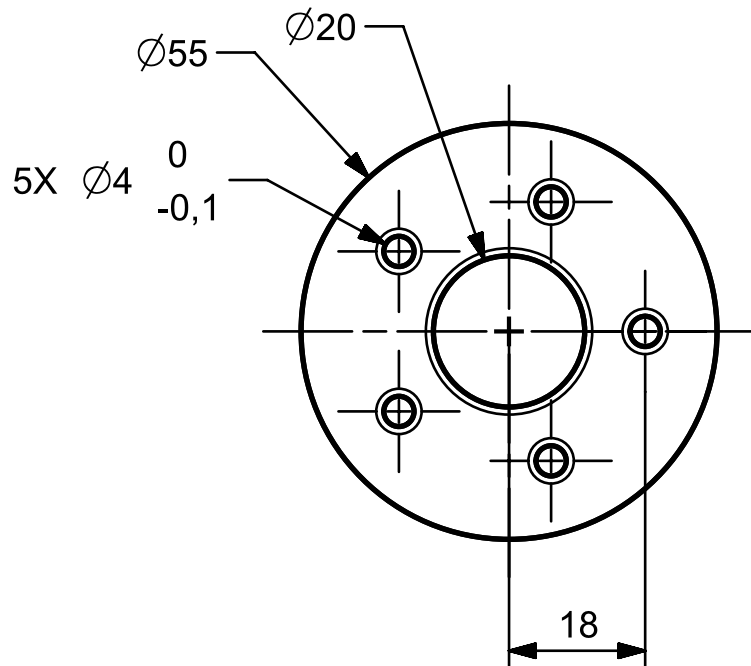
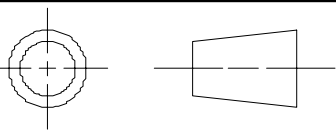


UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/29/21
DRAWN BY	MILLER, ANDREW
MATERIAL	ABS
FINISH	NONE
REVIEWED BY	ALKINS

TITLE	
MOTOR MOUNT	
SIZE	DRG NO.
A4	motor_mount
SHEET REV	
A	

SCALE 1:1 SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/29/21	TITLE		
DRAWN BY	MILLER, ANDREW			
MATERIAL	ABS			
FINISH	NONE			
REVIEWED BY	N/A	SIZE	DRG NO.	SHEET REV

HUB CAP

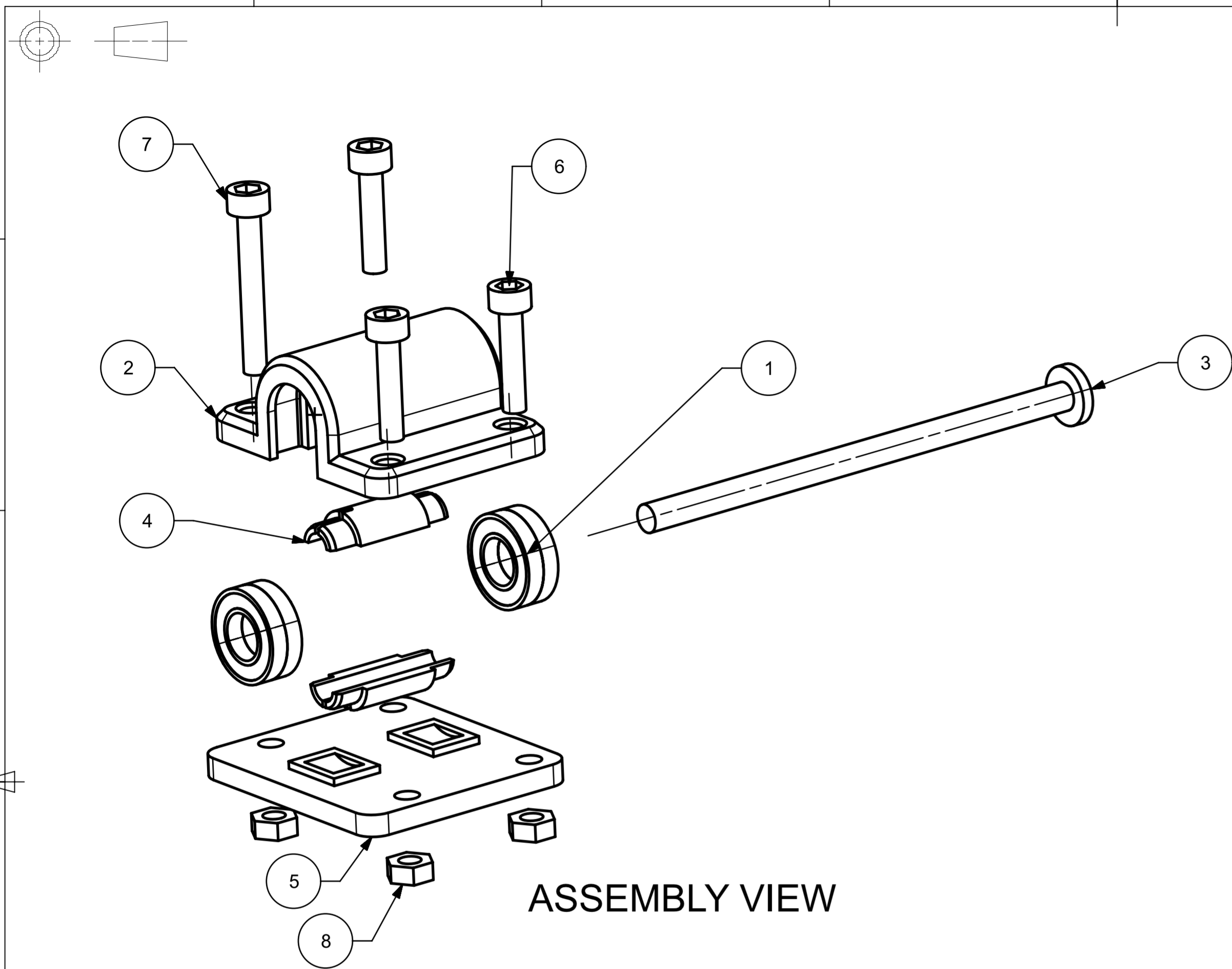
A4

Wheel_gear_plate

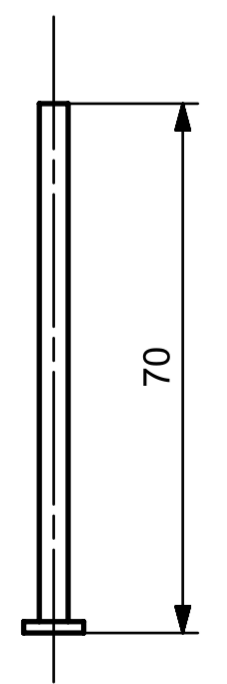
A

SCALE 1:1

SHEET 1 OF 1

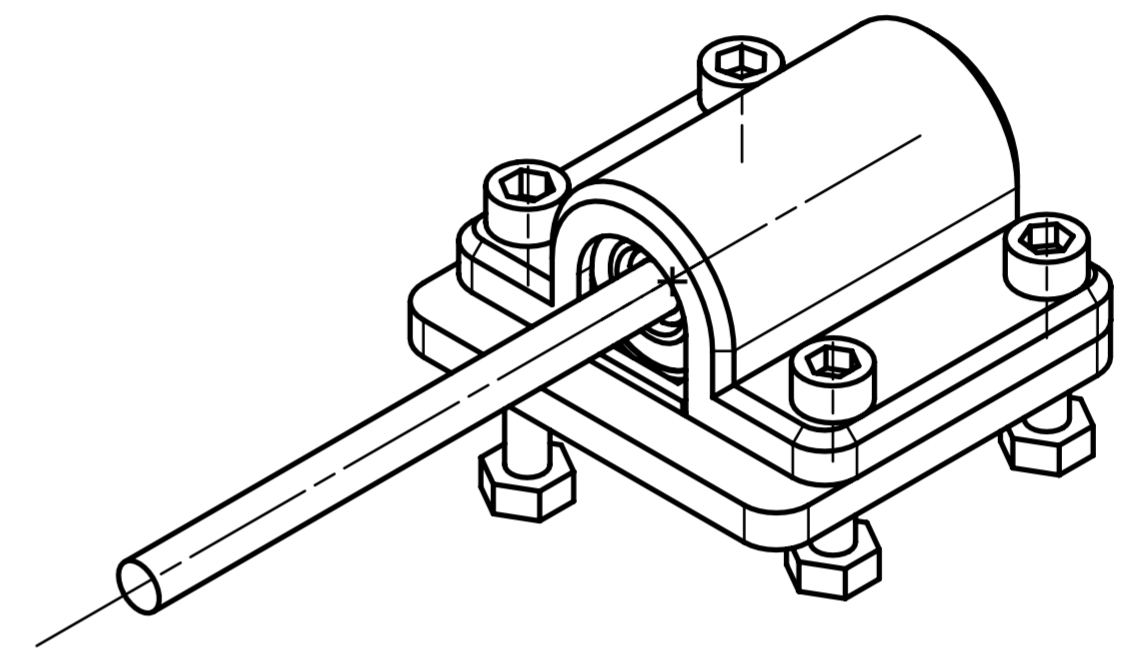


ASSEMBLY VIEW




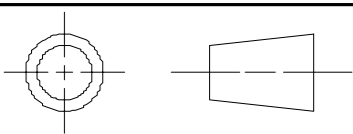
A NAIL, CUT TO LENGTH, WAS CHOSEN BECAUSE THE HEAD ENSURES THE AXLE REMAINS IN THE MOUNT IN THE CASE OF A LATERAL LOAD. IN PRACTICE , THE STRAIGHTNESS OF THE NAIL'S SHAFT WAS SLIGHTLY DISSAPPOINTING. IT CAN BE SUBSTUTED WITH A 4MM ROD IF DESIRED.

PC NO	PART NAME	QTY
8	M3_NUT	4
7	M3X22	1
6	M3X14	3
5	AXLE_MOUNT	1
4	AXLE_SPACER	2
3	NAIL_97801A509	1
2	AXLE_MOUNT_TOP	1
1	12_8MMBEARING	2

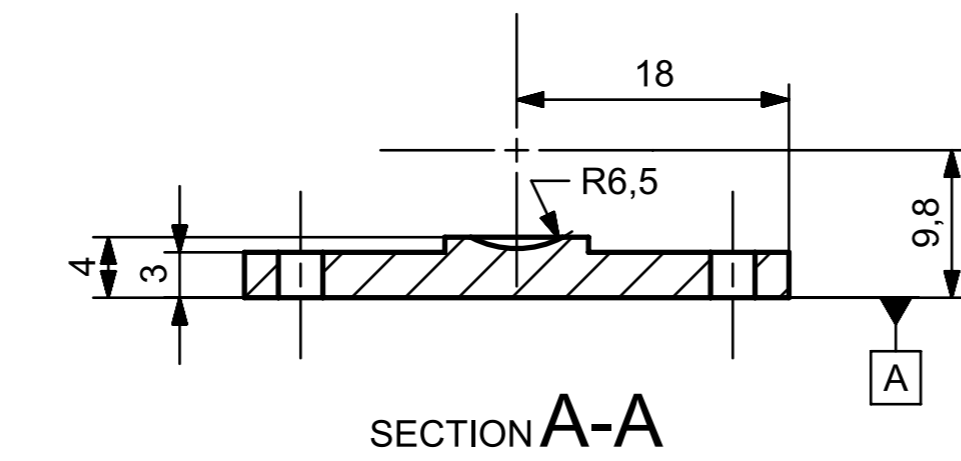
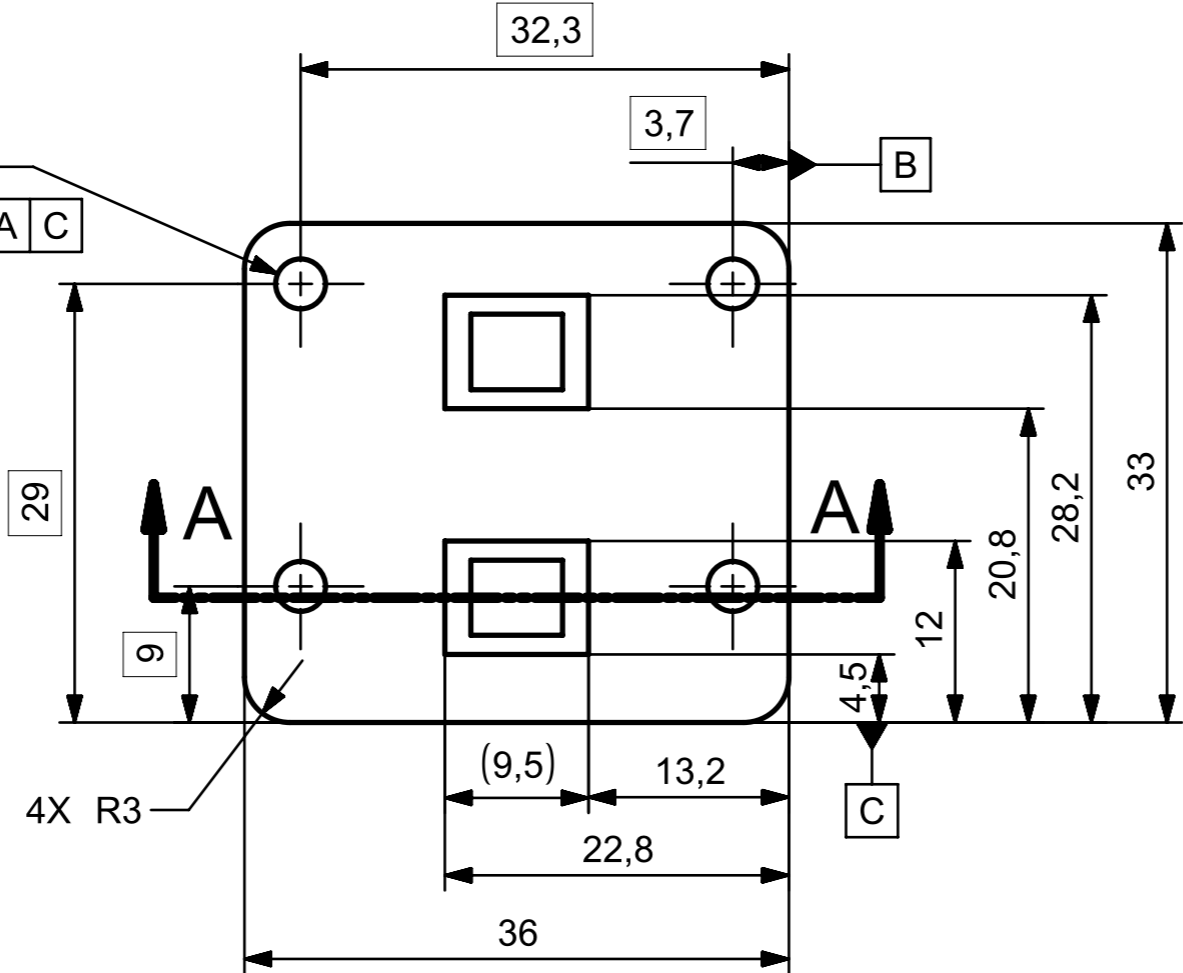


ALL DIMENSIONS IN MM

		UNIVERSITY OF ROCHESTER		
		TITLE		
FIRST ISSUED	4/20/21	WHEEL MOUNTING BLOCKS		
DRAWN BY	GAETAN FOISY			
MATERIAL	NONE	SIZE DRG NO. SHEET REV		
FINISH	NONE			
REVIEWED BY		A2	Axle_retainer	A
		SCALE 1:1	SHEET 1 OF 1	



4x $\varnothing 3,3 \pm 0,1$
 $\varnothing \varnothing 0.1 (M) A C$



UNLESS OTHERWISE SPECIFIED

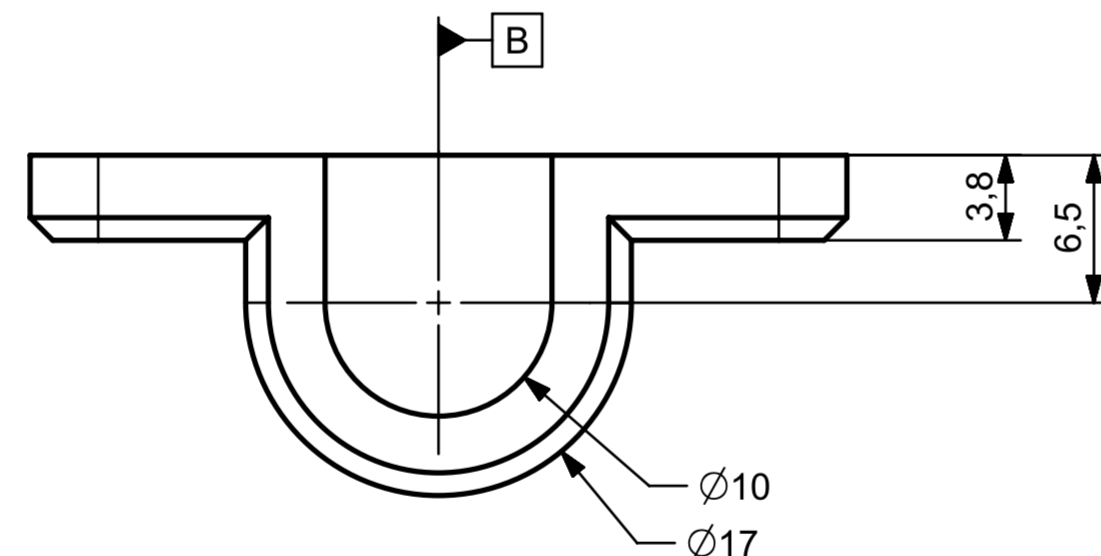
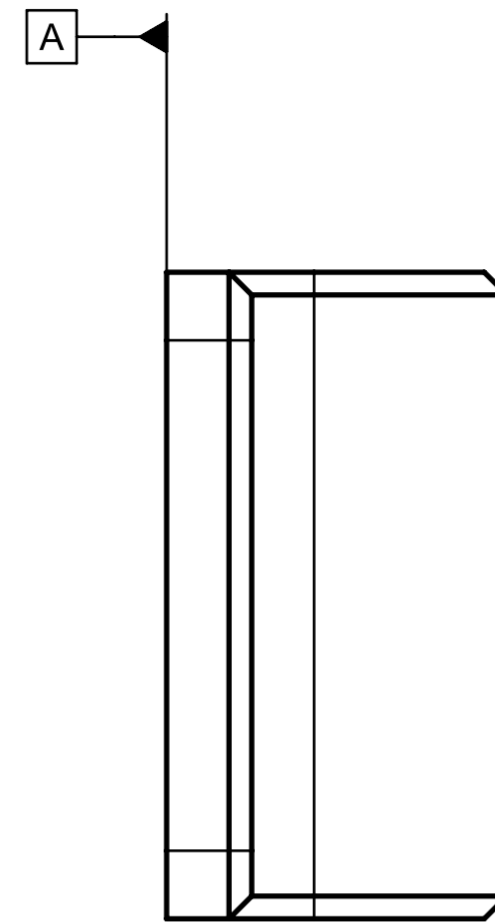
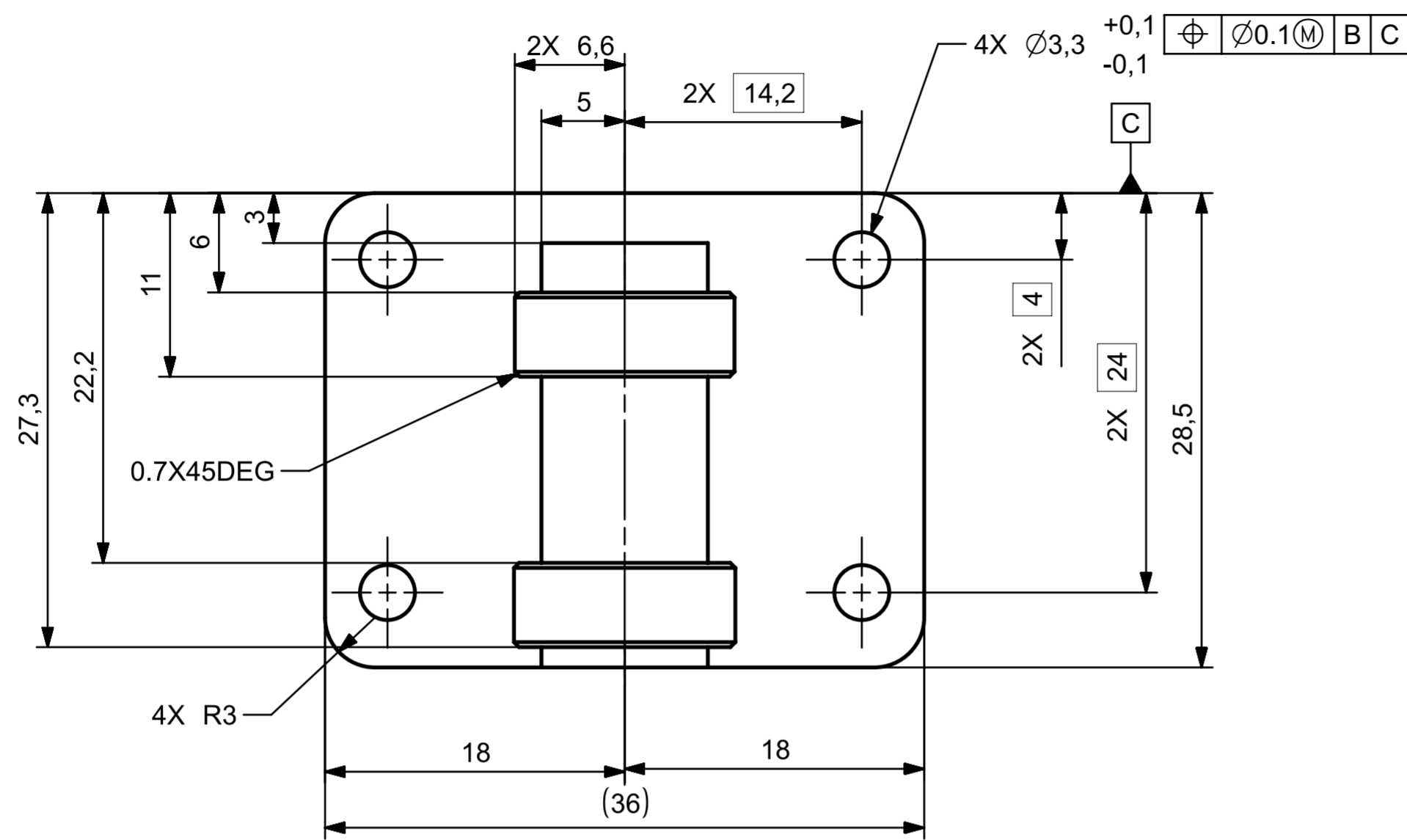
ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM



UNIVERSITY OF ROCHESTER


FIRST ISSUED	4/20/21	TITLE		
DRAWN BY	GAETAN FOISY	AXLE MOUNT		
MATERIAL	ABS			
FINISH	NA	SIZE	DRG NO.	SHEET REV
REVIEWED BY	NA	A3	Axle_mount	A
		SCALE 2:1	SHEET 1 OF 1	



UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

UNLESS SPECIFIED OTHERWISE, ALL CHAMFERS ARE 0.5MMX45DEG

		UNIVERSITY OF ROCHESTER		
		TITLE		
FIRST ISSUED	4/20/21	AXLE MOUNT TOP		
DRAWN BY	GAETAN FOISY			
MATERIAL	ABS	SHEET REV		
FINISH	NONE			
REVIEWED BY		A2	axle_mount_top	A
SCALE 2:1		SHEET 1 OF 1		

ALL DIMENSIONS IN MM

1

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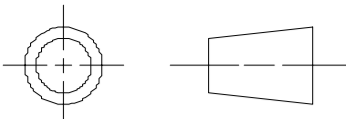
4

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3	6338K414_OIL-BEARING_STEP	2
2	SUSPENSION_OUTER_SPACER	1
1	SUSPENSION_FLIPPER	1
PC NO	PART NAME	QTY

A

A

B

B

C

C

D

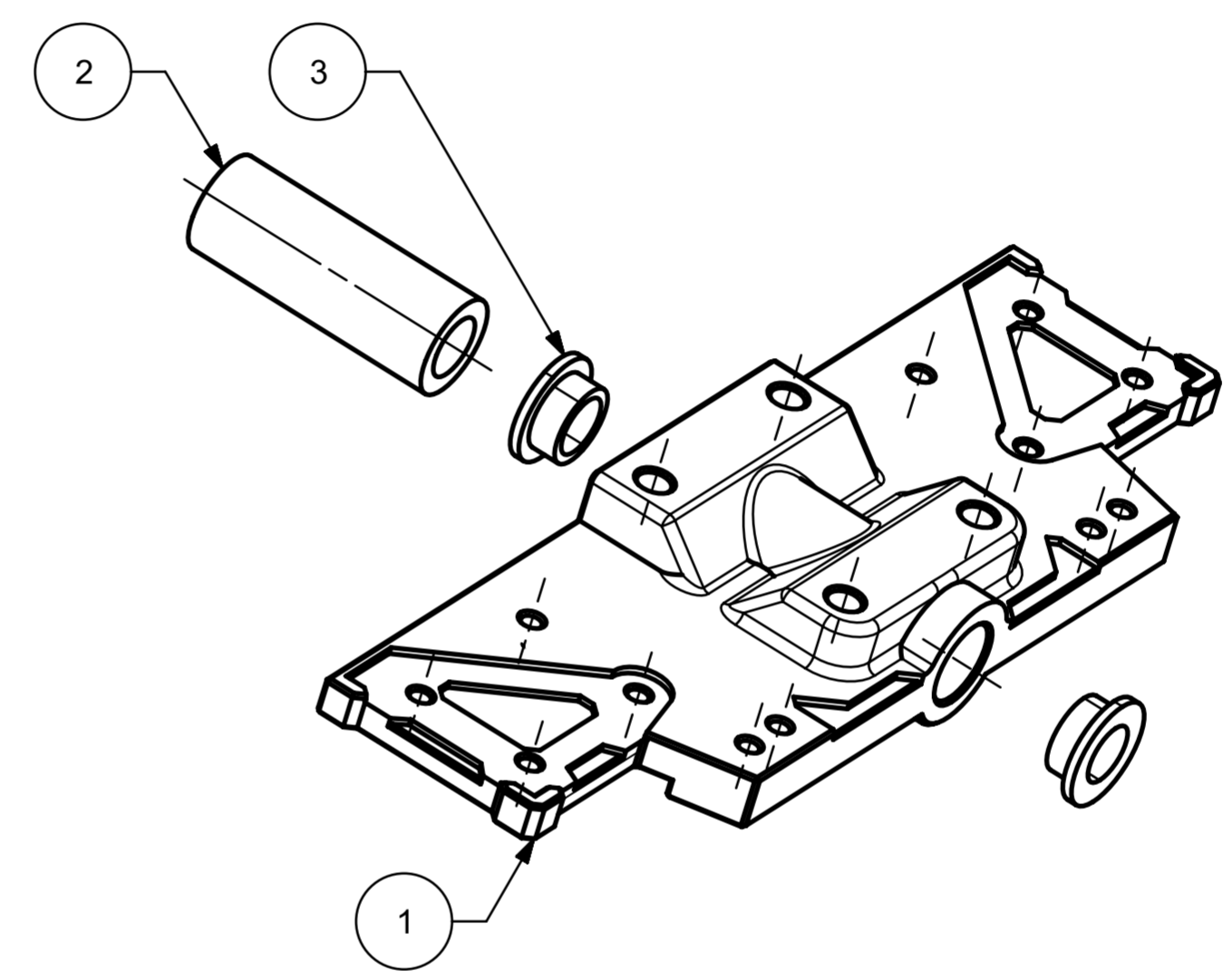
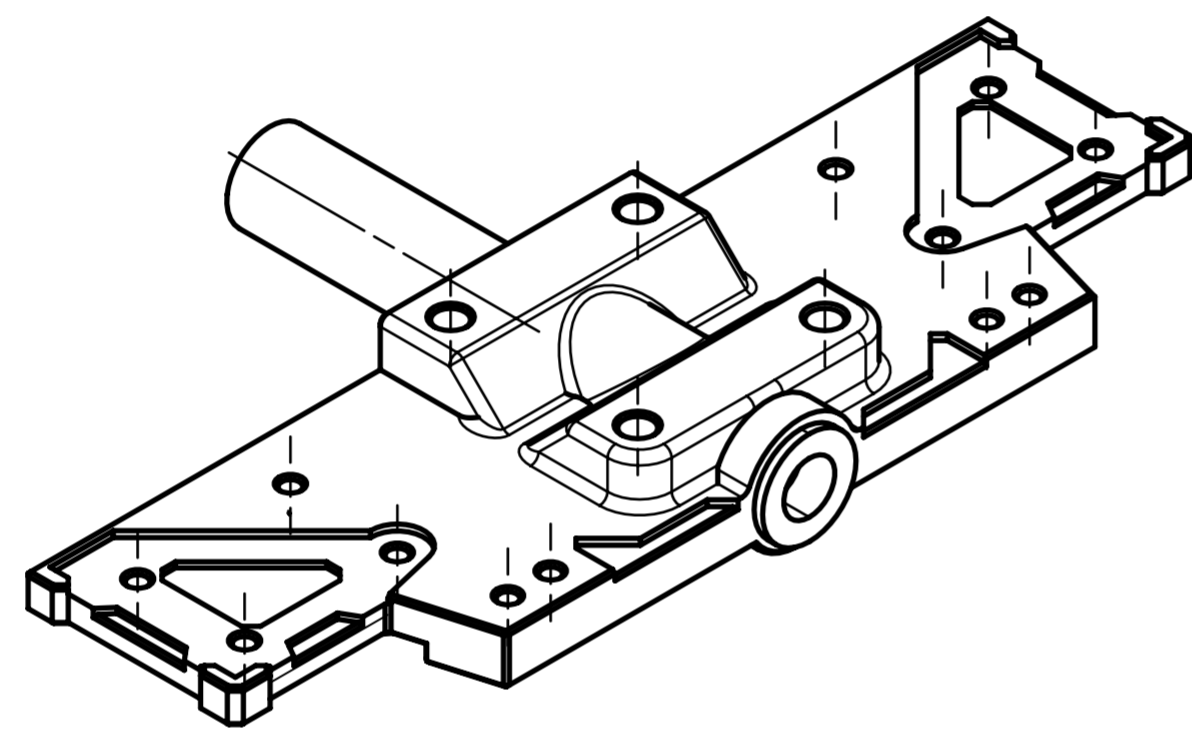
D

E

E

F

F



REF: Cantilever_Suspension



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/28/21
DRAWN BY	GAETAN FOISY
MATERIAL	N/A
FINISH	
REVIEWED BY	

TITLE		
SUSPENSION ASSEMBLY		
SIZE	DRG NO.	SHEET REV
A2	suspension_main_assembly	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN MM

1

2

3

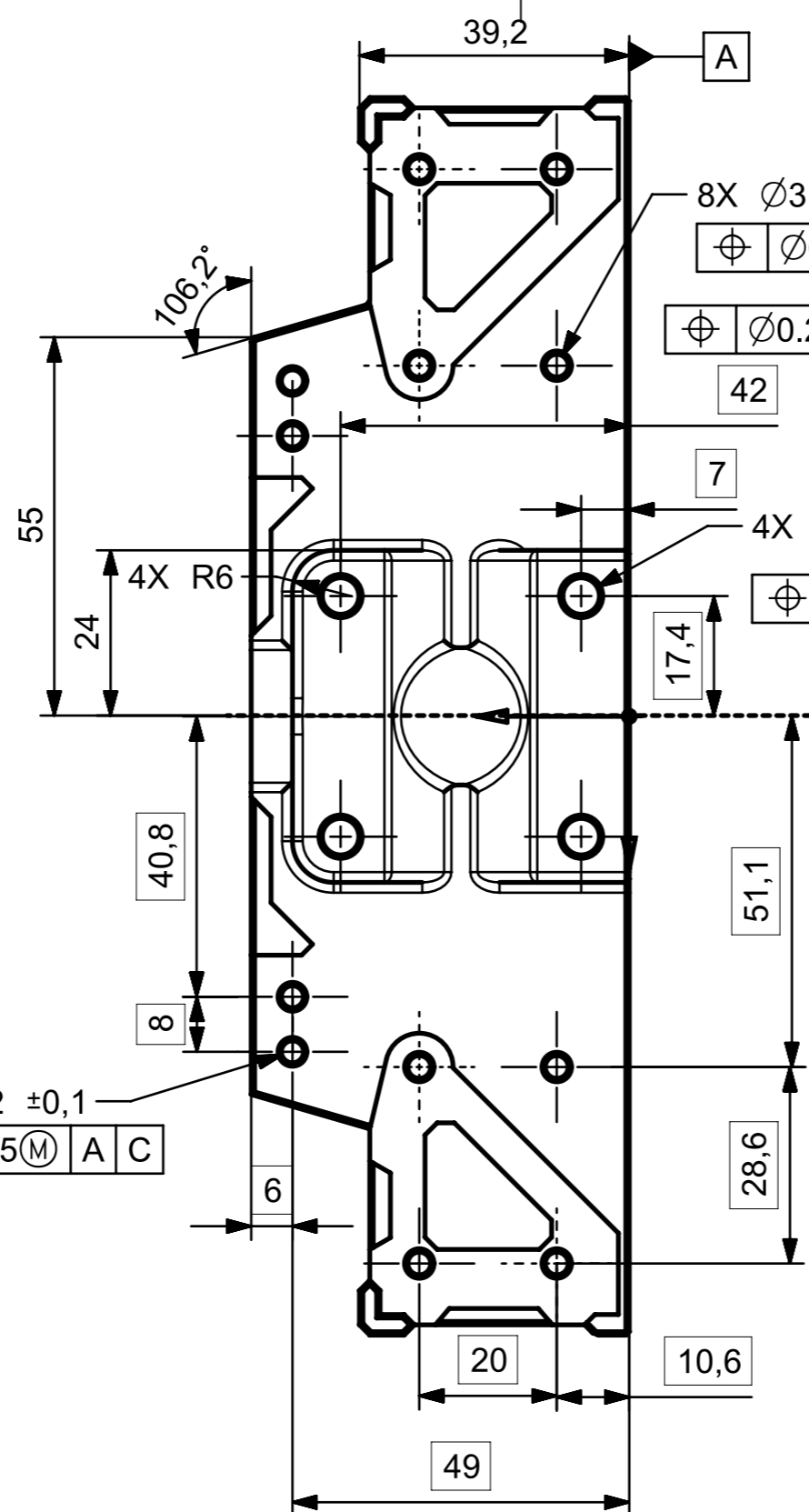
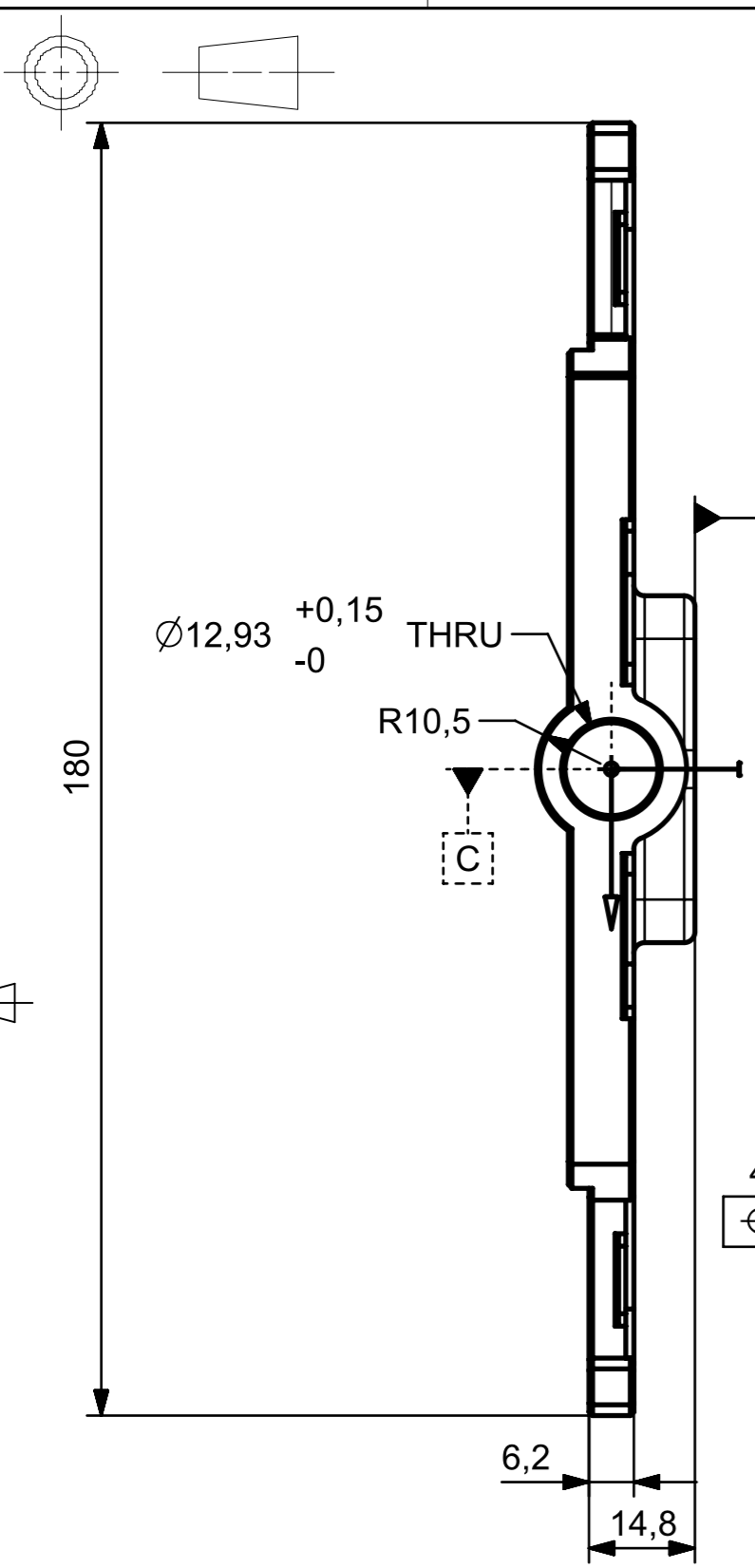
4

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8



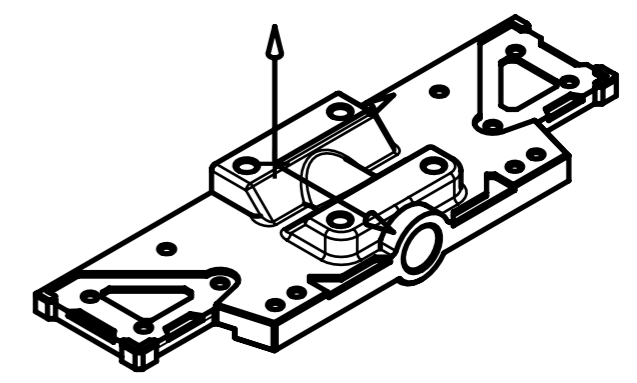
8X $\varnothing 3,3 \pm 0,1$
 $\varnothing 0,25(M) A C$

$\varnothing 0,25(M) A C$

4X $\varnothing 5,3 \begin{matrix} +0,1 \\ -0,2 \end{matrix}$ THRU
 $\varnothing 0,25(M) A C$

4X $\varnothing 3,2 \pm 0,1$
 $\varnothing 0,25(M) A C$

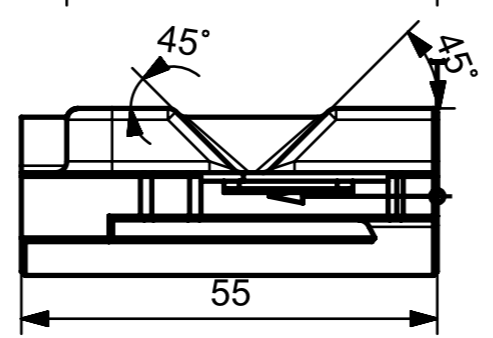
SYMMETRIC ABOUT LINE



UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ANY PARTS NOT DIMENSIONED ARE PURELY AESTHETIC
 ALL CHAMPHERS ARE 0.5x0.5mm



ALL DIMENSIONS IN MM



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FIRST ISSUED	3/25/21	TITLE		
DRAWN BY	GAETAN FOISY	SUSPENSION FLIPPER		
MATERIAL	ABS PLASTIC	SIZE	DRG NO.	SHEET REV
FINISH	N/A	A3	Suspension_flipper	A
REVIEWED BY		SCALE 1:1		SHEET 1 OF 1

1

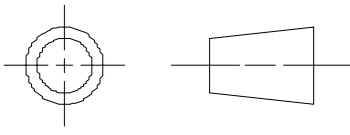
2

3

4

5

6

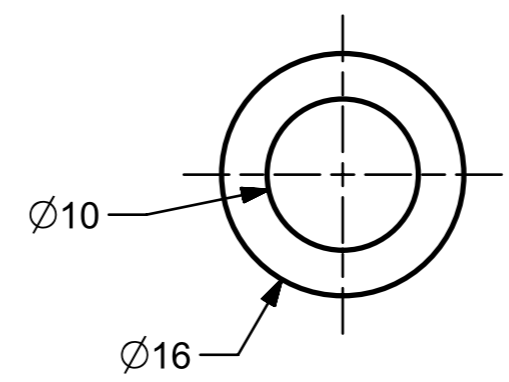
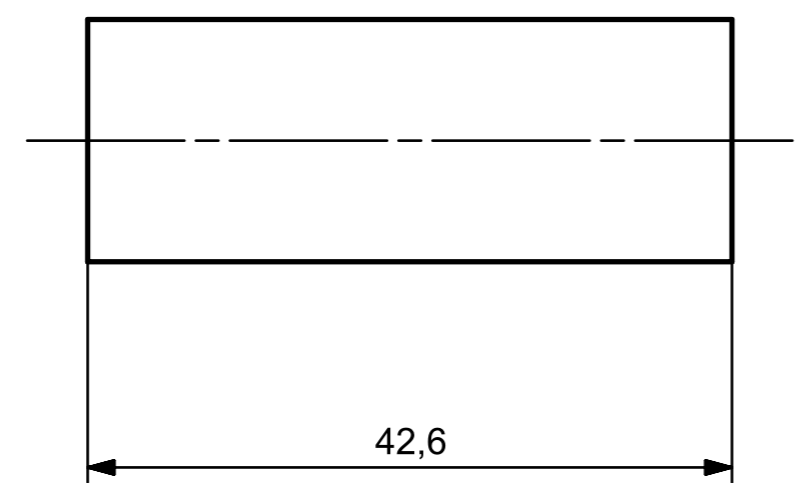


A

A

B

B



C

C

DEPENDING ON THE FIT, THIS PART MAY NEED TO BE LENGTHENED OR SHORENED. THIS CAN BE ACHIEVED BY MODIFYING THE CAD PRIOR TO PRINTING, OR SHIMMING AND SANDING.



UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

FIRST ISSUED	3/28/21	TITLE		
DRAWN BY	GAETAN FOISY	SUSPENSION SPACER		
MATERIAL	ABS OR PVC			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY		A3	Suspension_outer_spacer	A
		SCALE 1:1	SHEET 1 OF 1	

ALL DIMENSIONS IN MM

1

2

3

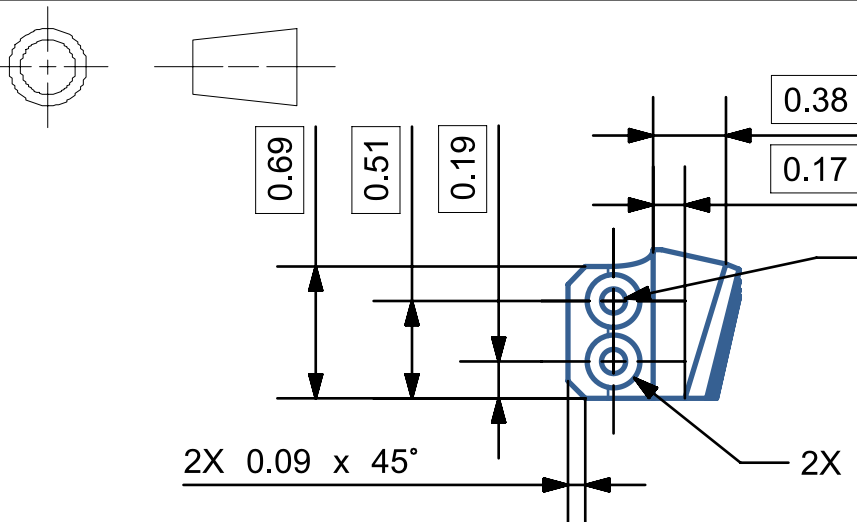
4

5

6

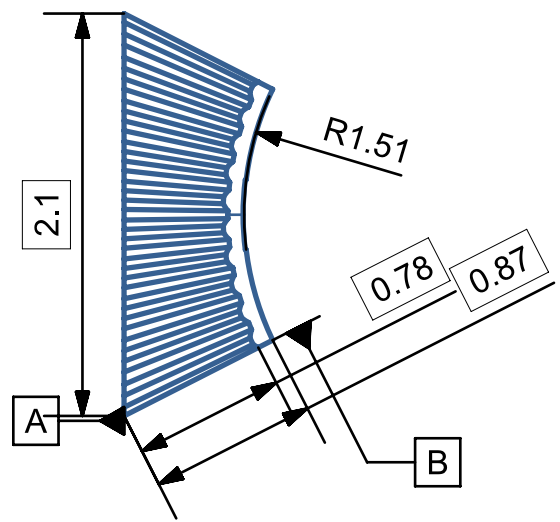
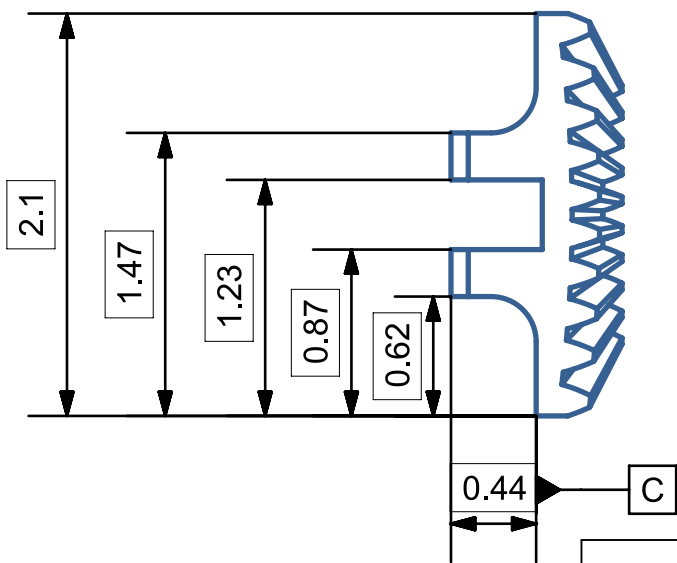
D

D




Bevel Gear from McMaster
 (<https://www.mcmaster.com/2515N17/>)

Gear Type	Bevel
Component	Gear
System of Measurement	Inch
Bore Type	Round
Face Width	0.48"
Pitch	16
Pressure Angle	20°
Speed Ratio	4:1



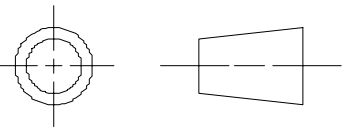
UNLESS OTHERWISE SPECIFIED

ANGLES ± 0.5°	X ± 0.025	X.X ± 0.020	X.XX ± 0.010	X.XXX ± 0.005	X.XXXX ± 0.0005
------------------	--------------	----------------	-----------------	------------------	--------------------

	
FIRST ISSUED	4/3/2021
DRAWN BY	SABA
MATERIAL	ABS
FINISH	NONE
REVIEWED BY	N/A

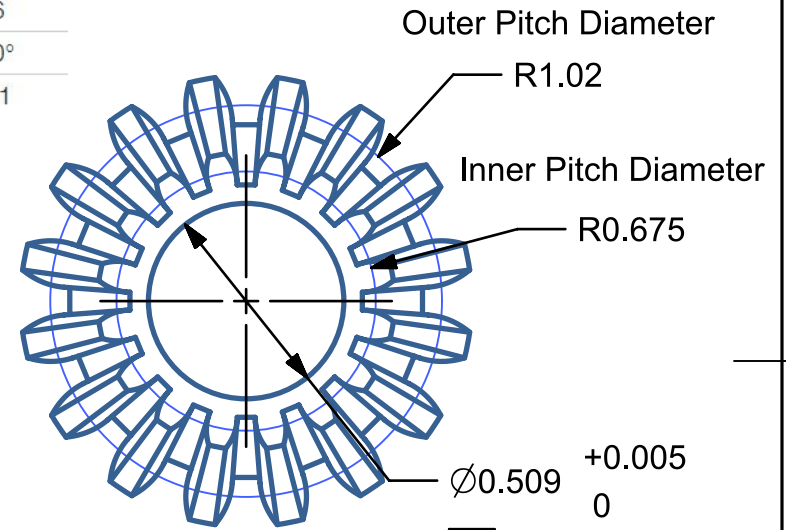
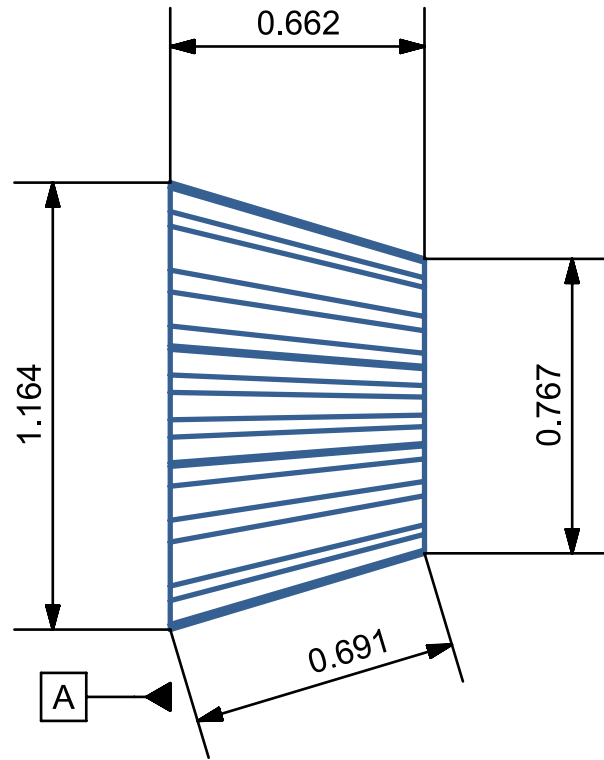
UNIVERSITY OF ROCHESTER			
TITLE			
BEVEL GEAR			
SIZE	DRG NO.	SHEET REV	
A	Small_Bevel_Gear	C	
SCALE 1:1		SHEET 1 OF 1	

ALL DIMENSIONS IN INCHES



Bevel Gear from McMaster
 (<https://www.mcmaster.com/2515N18/>)

Gear Type	Bevel
Component	Gear
System of Measurement	Inch
Bore Type	Round
Face Width	0.48"
Pitch	16
Pressure Angle	20°
Speed Ratio	4:1



B				
⊕	⊕0.05(M)	A	B	C

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX	X.XXXX
± 0.5°	± 0.025	± 0.020	± 0.010	± 0.005	± 0.0005

ALL DIMENSIONS IN INCHES



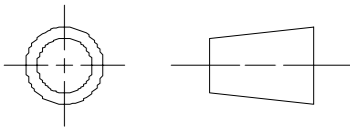
UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/3/2021
DRAWN BY	SABA
MATERIAL	ABS
FINISH	NONE
REVIEWED BY	N/A

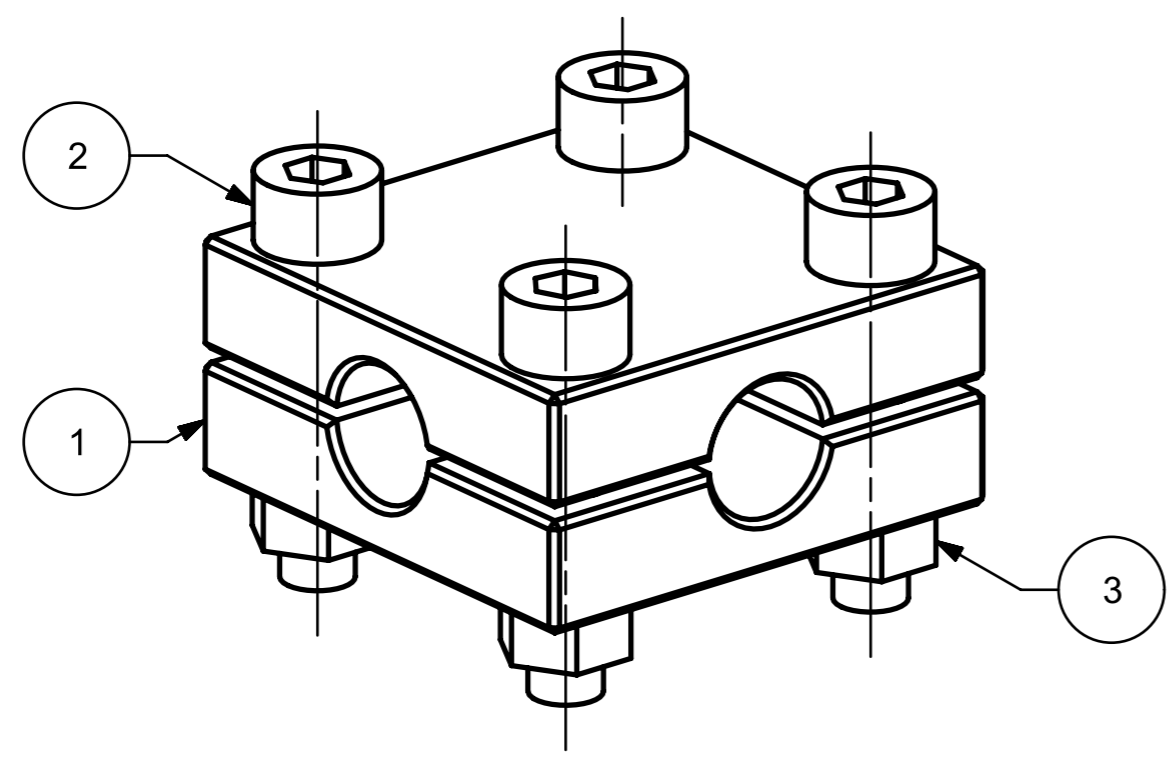
TITLE		
BEVEL PINION		
SIZE	DRG NO.	SHEET REV
A	Small_Bevel_Pinion	B

SCALE 2:1


SHEET 1 OF 1

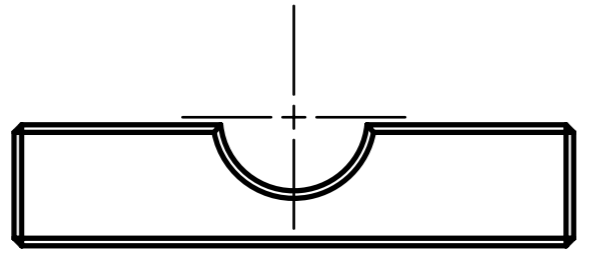
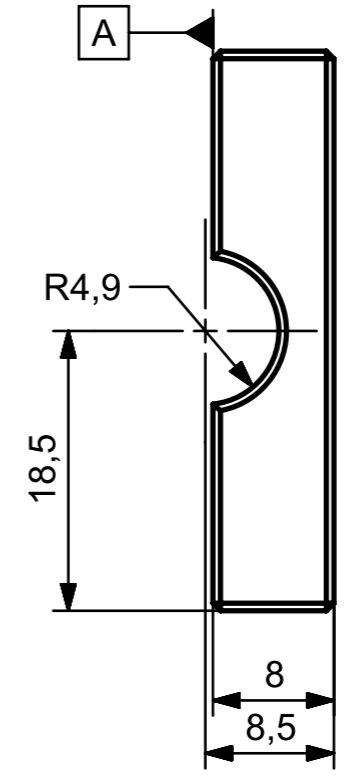
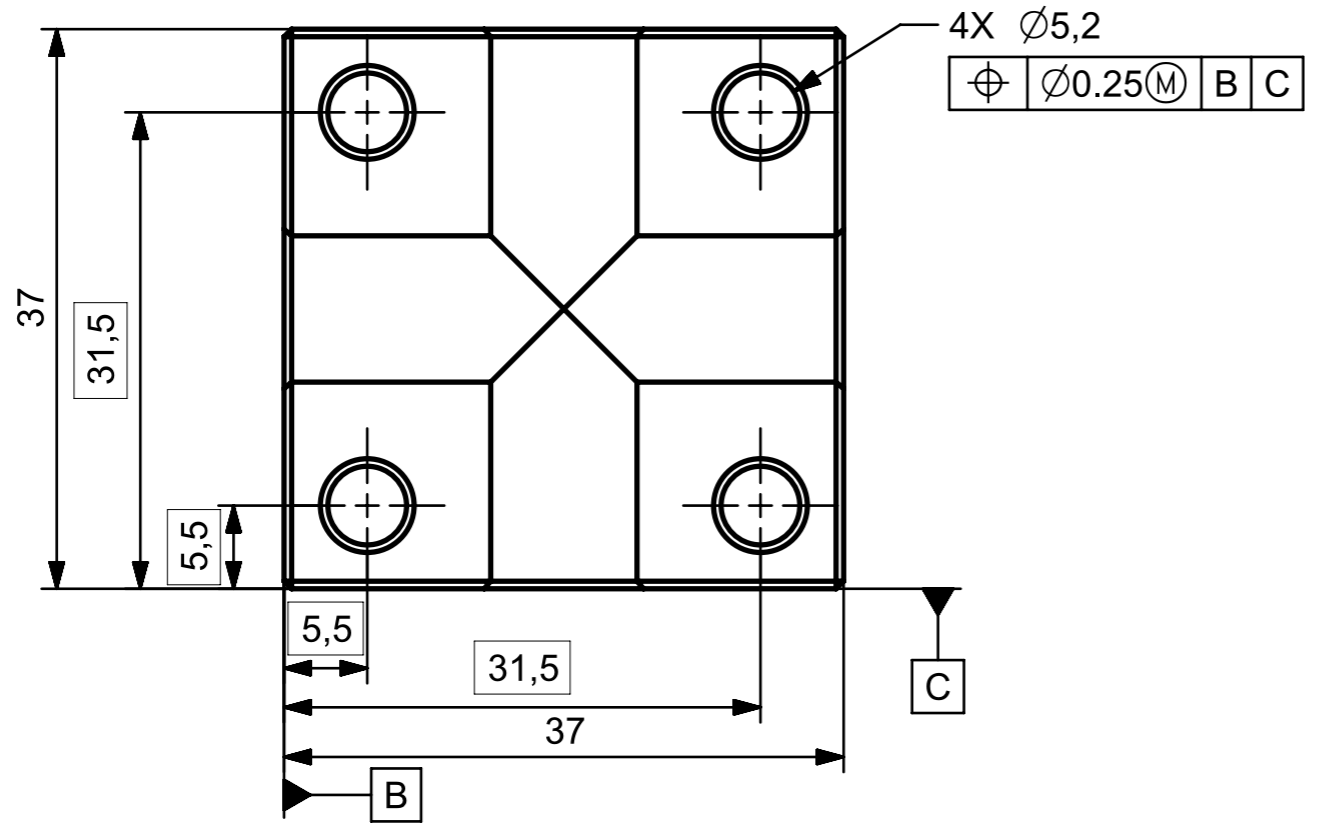
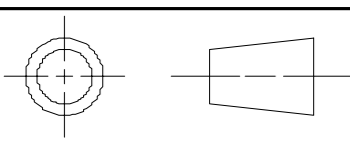


3	M5_NUT	4
2	M5X24	4
1	SHAFT_CLAMP_HALF	2
PC NO	PART NAME	QTY



ALL DIMENSIONS IN MM

		UNIVERSITY OF ROCHESTER		
FIRST ISSUED	4/28/21	TITLE SHAFT CLAMP ASSEMBLY		
DRAWN BY	GAETAN FOISY			
MATERIAL	N/A	SIZE DRG NO.		SHEET REV
FINISH		A3	SHAFT_CLAMP	
REVIEWED BY		SCALE 1:1		SHEET 1 OF 1



ALL CHAMFERS ARE 1MM X 45 DEGREES

UNLESS OTHERWISE SPECIFIED

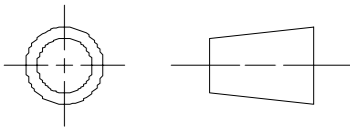
ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM

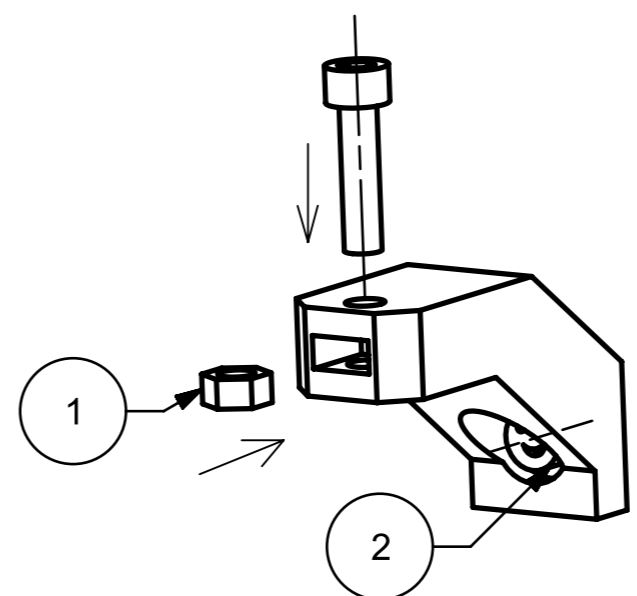
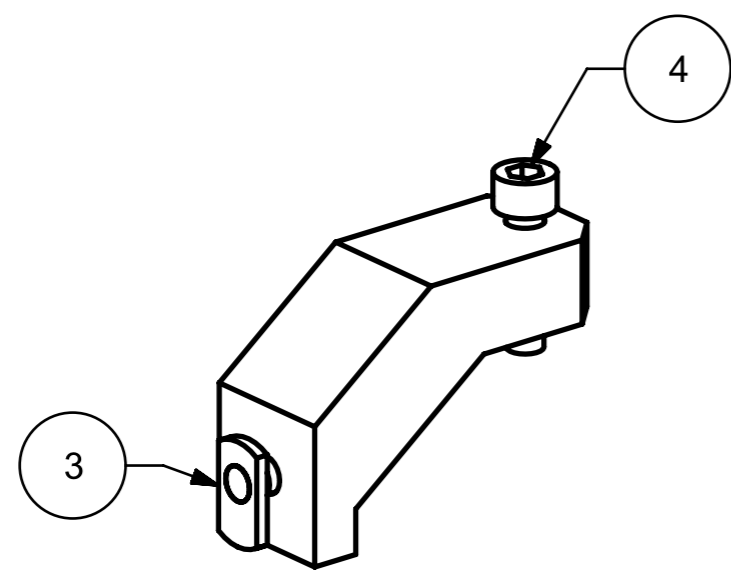


UNIVERSITY OF ROCHESTER

FIRST ISSUED	3/26/21	TITLE		
DRAWN BY	GAETAN FOISY	SHAFT CLAMP		
MATERIAL	ABS			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY		A3	Shaft_clamp_half	A
		SCALE 1:1	SHEET 1 OF 1	



4	M5X20_SHCS	1
3	5527T651_T_SLOTTED_FRAMING	1
2	M5X8_SHCS	1
1	M5_NUT	1
PC NO	PART NAME	QTY



INSERT THE M5 NUT INTO THE SLOT AND TIGHTEN DOWN THE BOLT. THE BOLT CAN THEN BE ADJUSTED TO LIMIT THE MAX SUSPENSION TRAVEL.

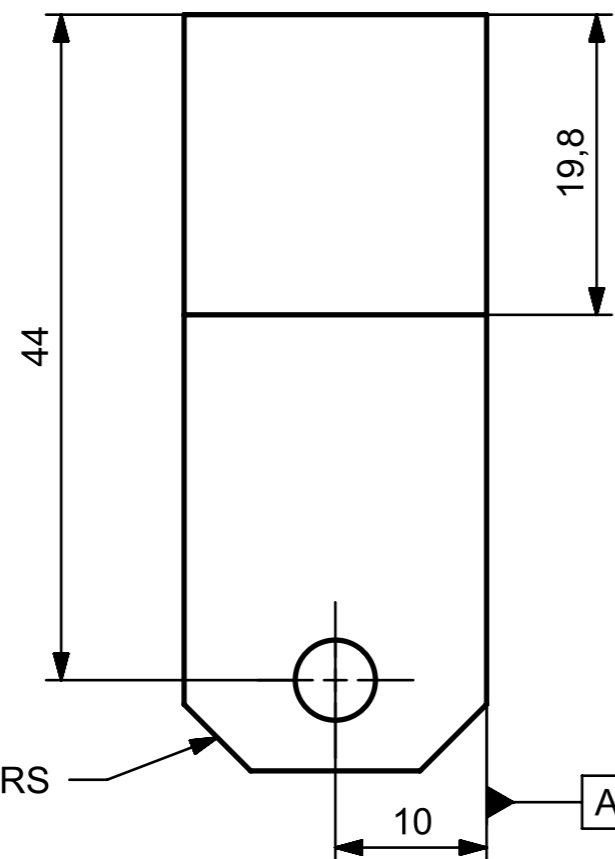
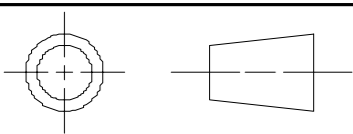
REF: Frame_Cantilever



UNIVERSITY OF ROCHESTER

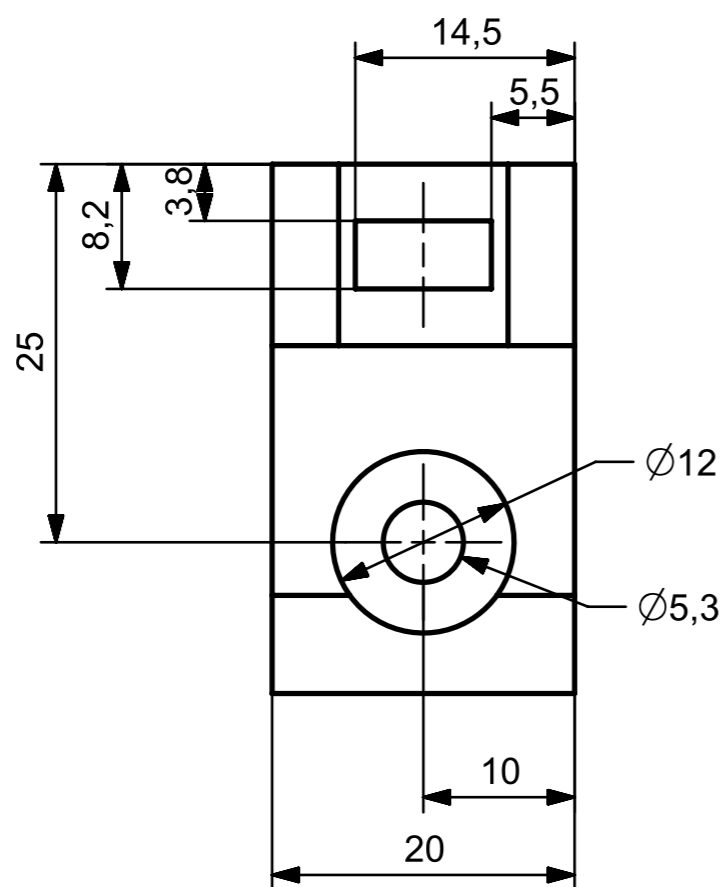
FIRST ISSUED	4/28/21	TITLE		
DRAWN BY	GAETAN FOISY	STOPBLOCK ASSEMBLY		
MATERIAL	MISC			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY		A3	stopblock	A
		SCALE 1:1	SHEET 1 OF 2	

ALL DIMENSIONS IN MM



1X1MM CHAMFERS

A



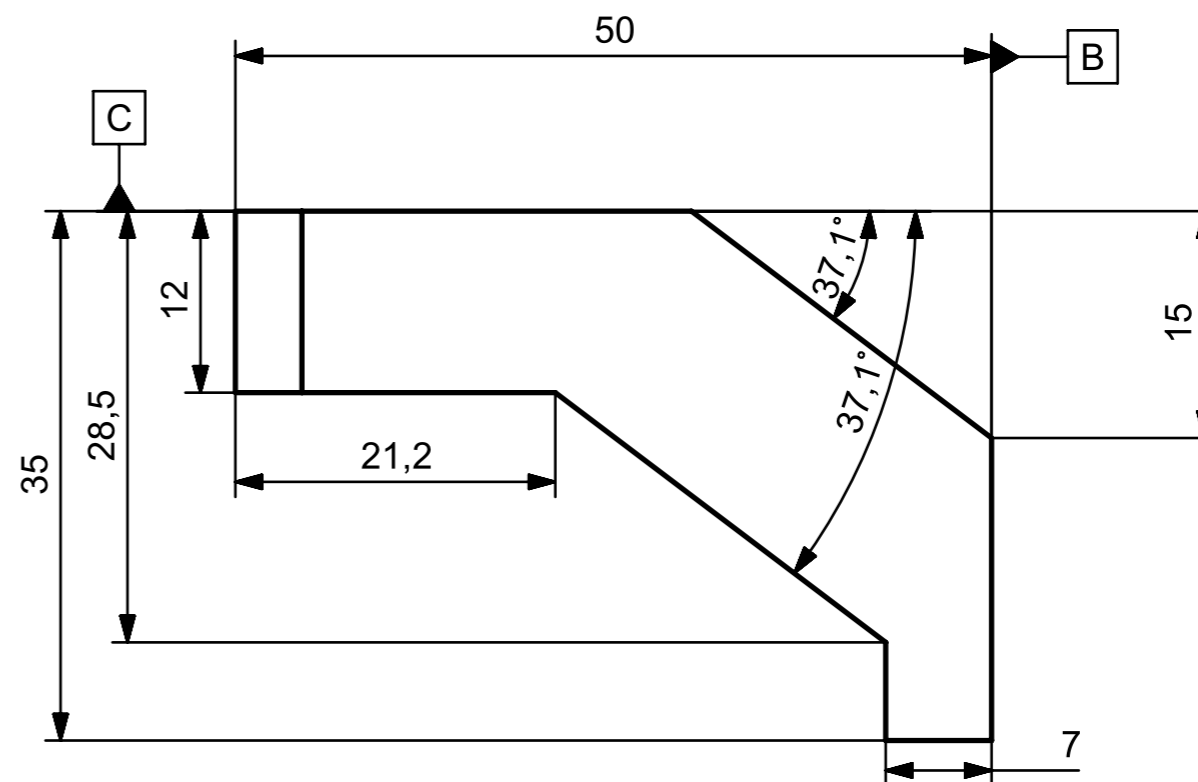
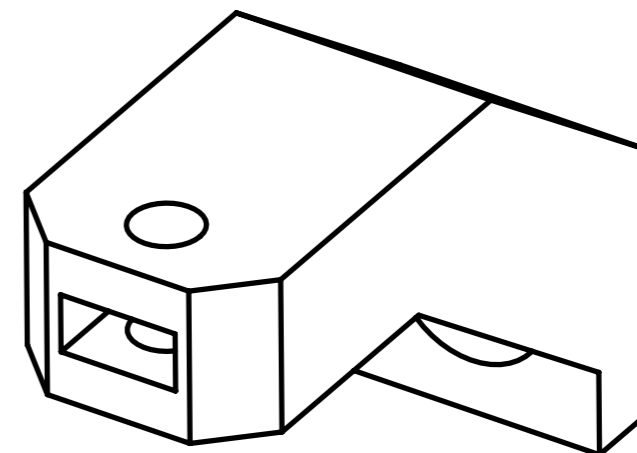
Ø12


Ø5.3

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM



		UNIVERSITY OF ROCHESTER			
		STOPBLOCK			
FIRST ISSUED	4/28/21	TITLE		stopblock	
DRAWN BY	GAETAN FOISY	SIZE		A3	
MATERIAL	ABS	DRG NO.		stopblock	
FINISH	NONE	SCALE		2:1	
REVIEWED BY		SHEET		2 OF 2	

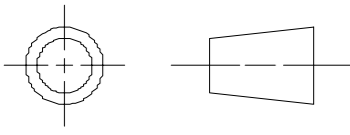
UNIVERSITY OF ROCHESTER

STOPBLOCK

stopblock

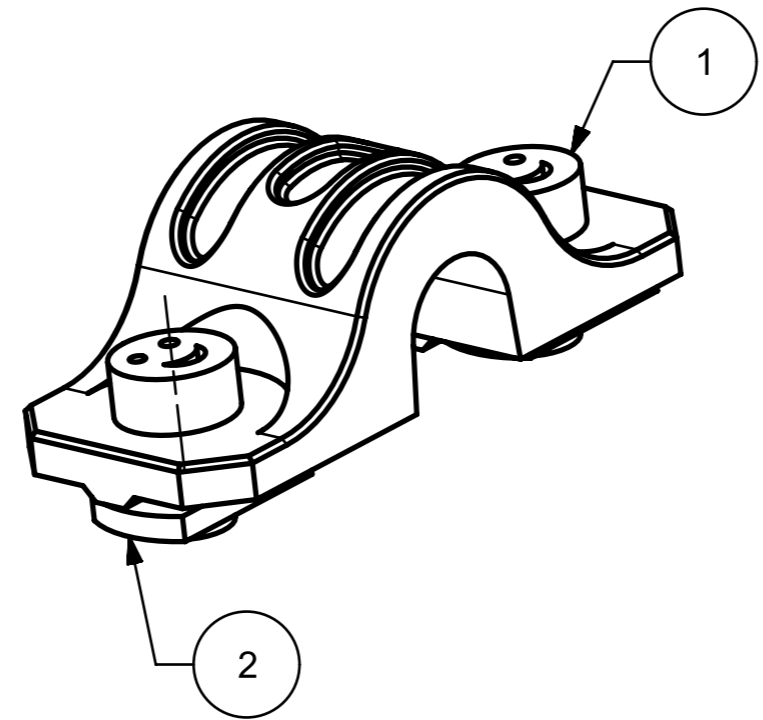
SCALE 2:1

SHEET 2 OF 2



2	5527T651_T_SLOTTED_FRAMING	2
1	M5X8_SHCS	2
PC NO	PART NAME	QTY

IF THE DISPLAYED HOLE PATTERN FOR THE M5X8 SOCKET HEADED CAP SCREWS IS UNAVAILABLE, A STANDARD HEX DRIVE IS AN ADEQUATE SUBSTITUTION.



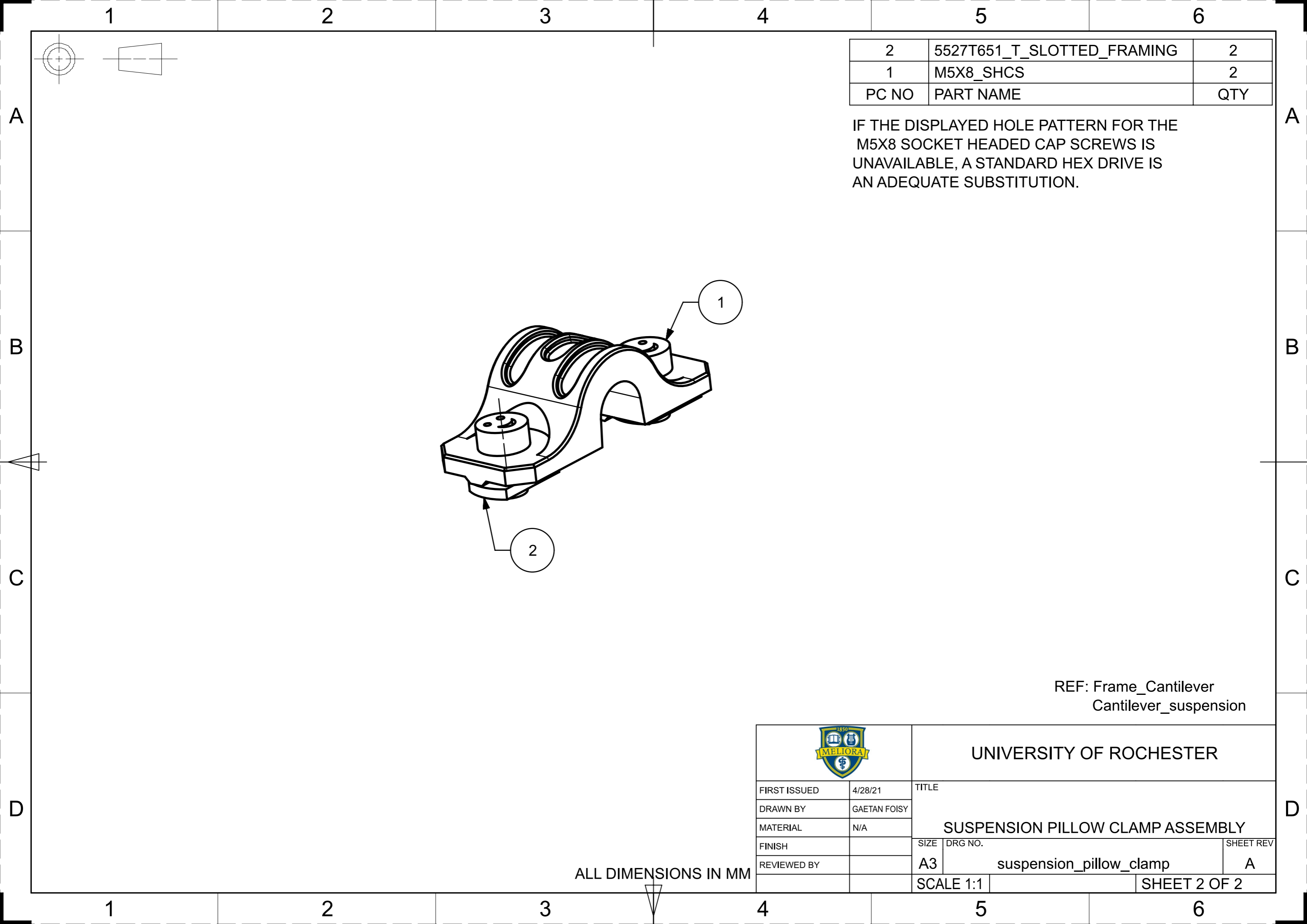
REF: Frame_Cantilever
Cantilever_suspension

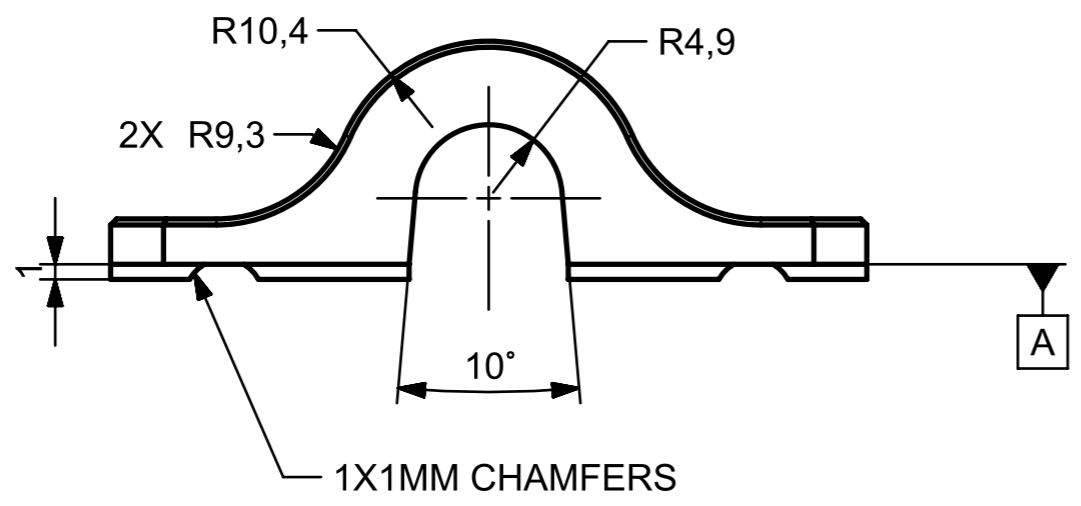
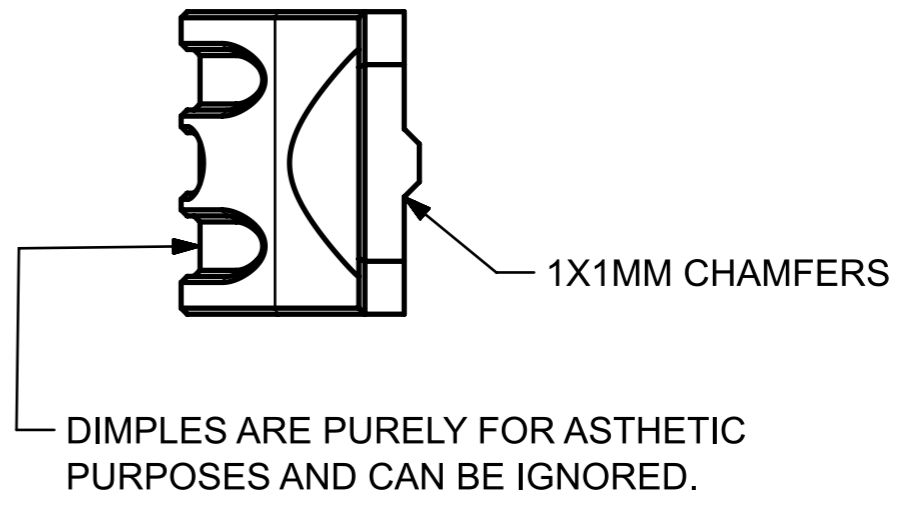
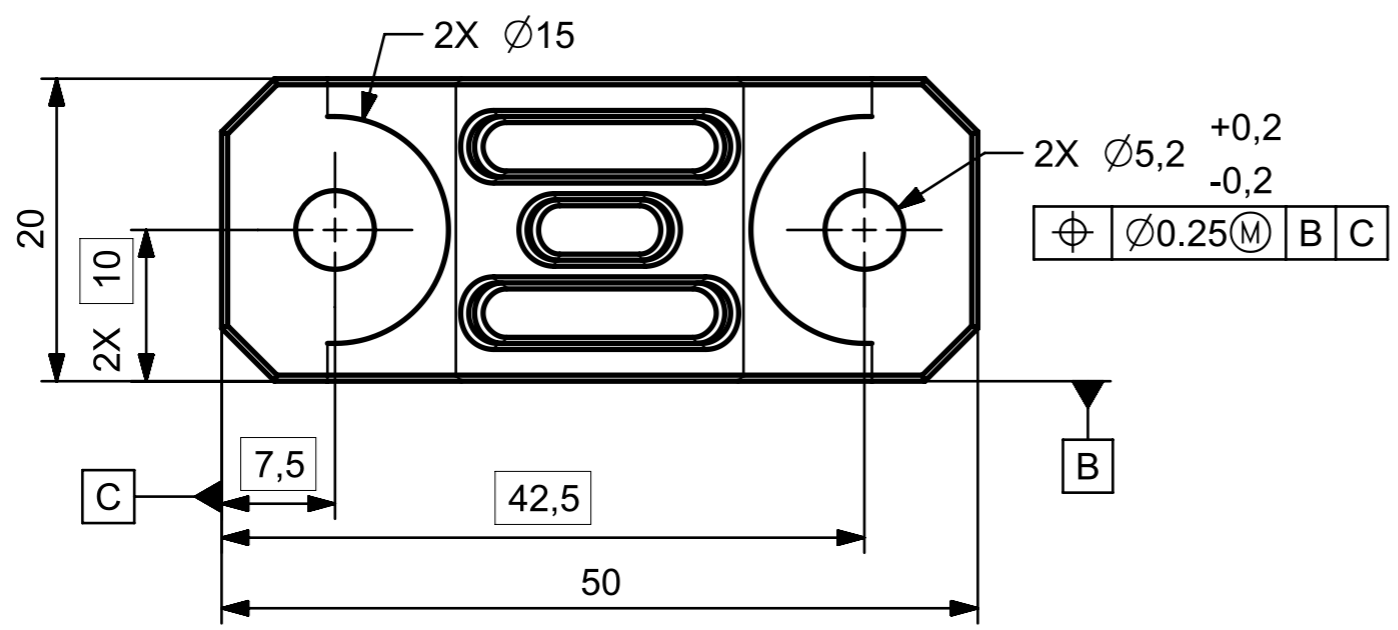
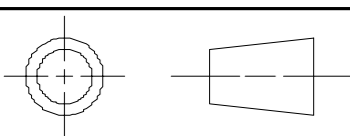


UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/28/21	TITLE	
DRAWN BY	GAETAN FOISY	SUSPENSION PILLOW CLAMP ASSEMBLY	
MATERIAL	N/A		
FINISH		SIZE	DRG NO.
REVIEWED BY		A3	suspension_pillow_clamp
		SCALE 1:1	SHEET 2 OF 2

ALL DIMENSIONS IN MM





UNLESS MARKED OTHERWISE
ALL CHAMFERS ARE 0.4X0.4MM

UNLESS OTHERWISE SPECIFIED

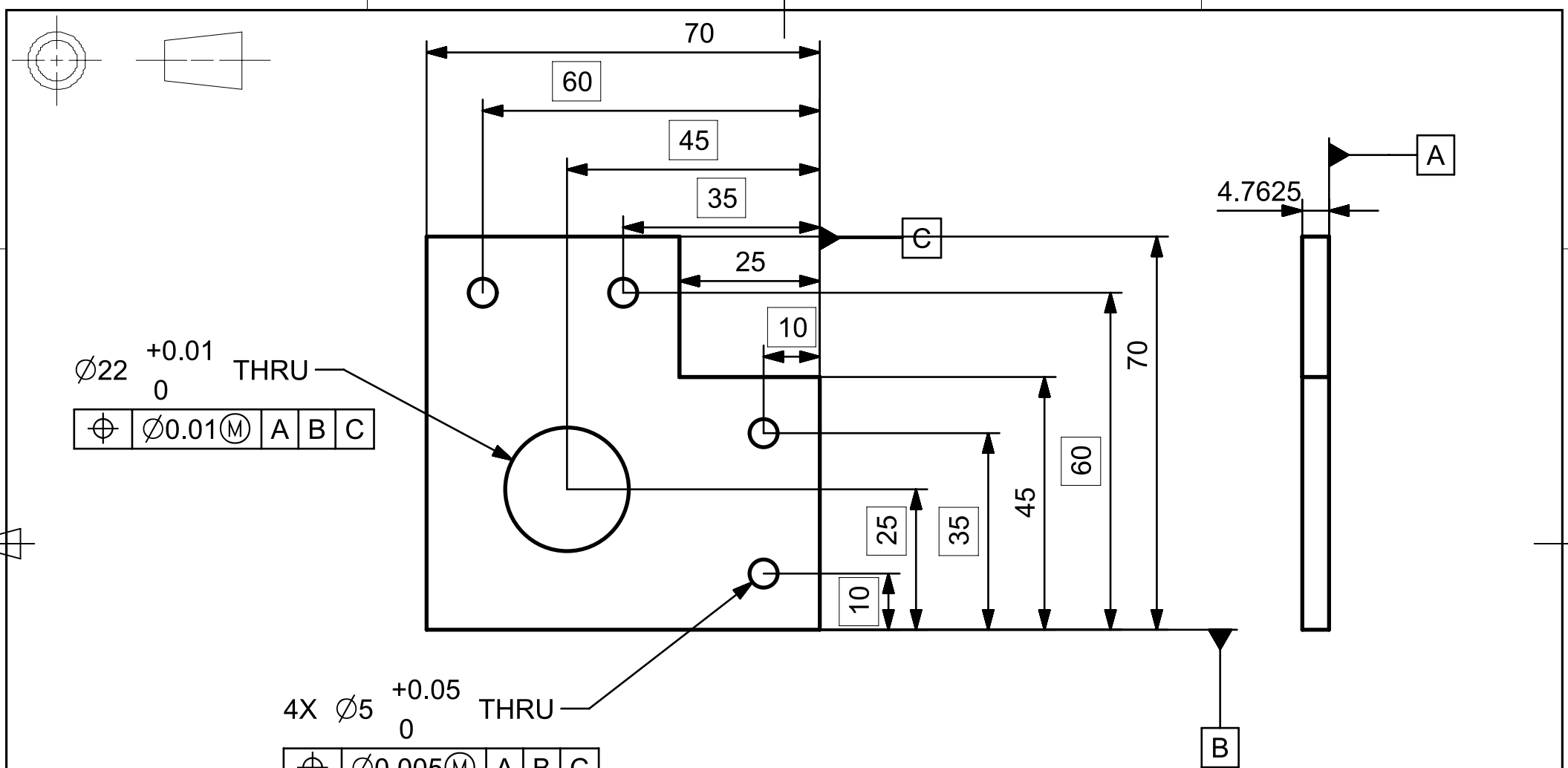
ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM



UNIVERSITY OF ROCHESTER

FIRST ISSUED	3/28/21	TITLE		
DRAWN BY	GAETAN FOISY	PILLOW BLOCK		
MATERIAL	ABS			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY		A3	suspension_pillow_clamp	A
		SCALE 1:1	SHEET 1 OF 2	



$\text{Ø}22 \begin{matrix} +0.01 \\ 0 \end{matrix}$ THRU

Ø	$\text{Ø}0.01$	M	A	B	C
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4X $\text{Ø}5 \begin{matrix} +0.05 \\ 0 \end{matrix}$ THRU

Ø	$\text{Ø}0.005$	M	A	B	C
------------	-----------------	------------	---	---	---

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM



UNIVERSITY OF ROCHESTER

FIRST ISSUED	03/28/2021
DRAWN BY	ZHOU
MATERIAL	ACRYLIC
FINISH	NONE
REVIEWED BY	

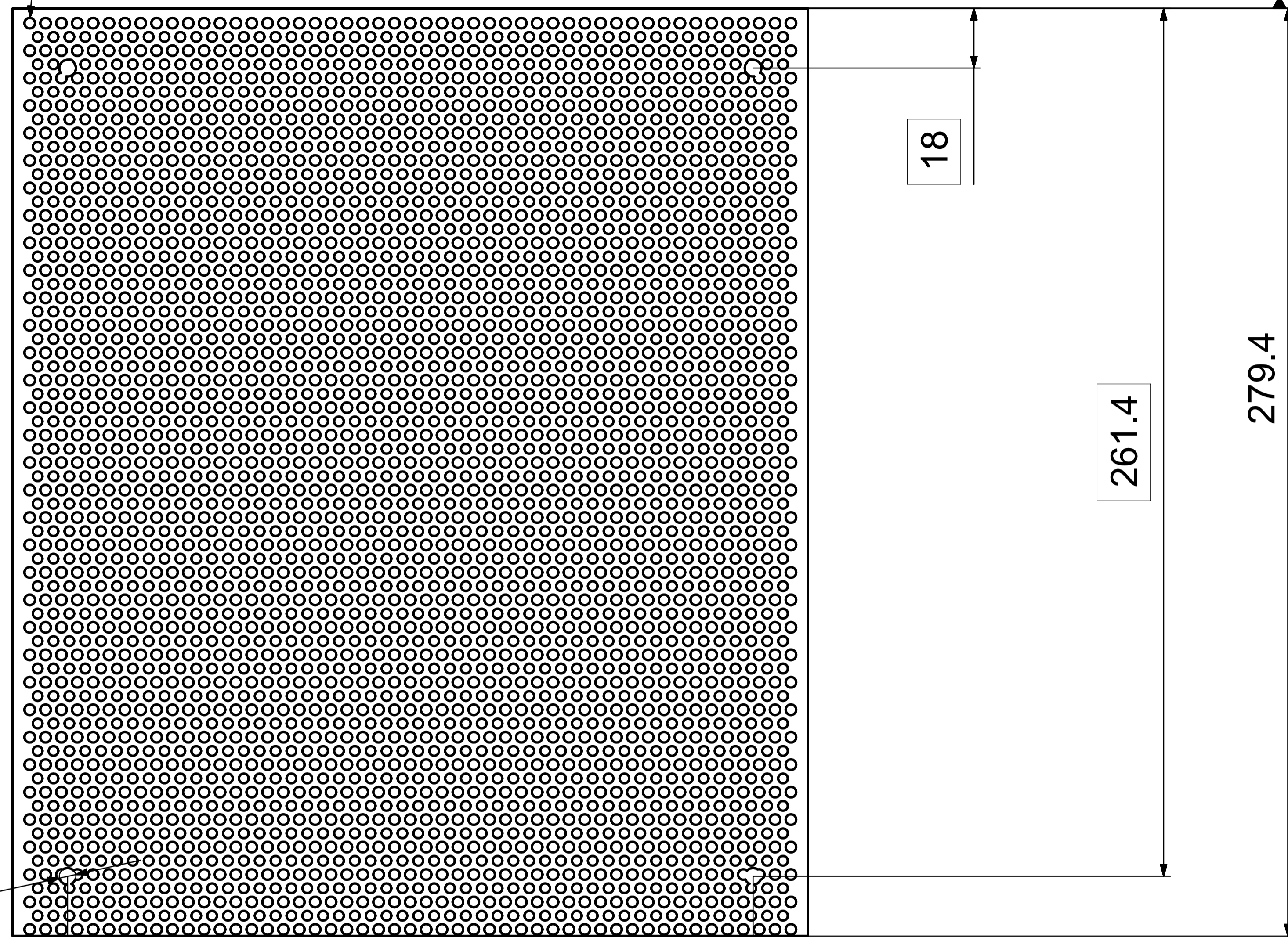
TITLE		
E-STOP MOUNTING PLATE		
SIZE	DRG NO.	SHEET REV
A4	E_StopMountBoard	A

SCALE 1:1 SHEET 1 OF 1

Staggered $\varnothing 3.175$ $\begin{matrix} +0 \\ -0 \end{matrix}$ Thru

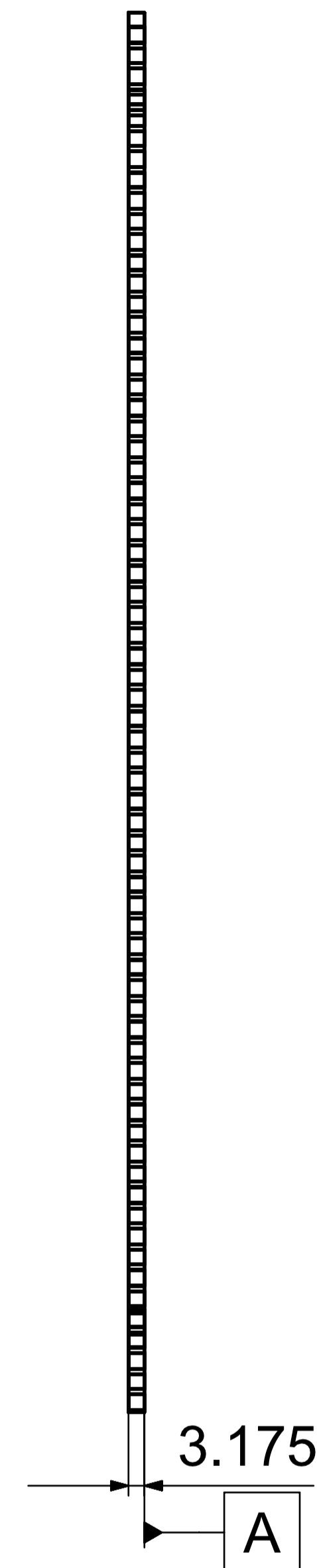
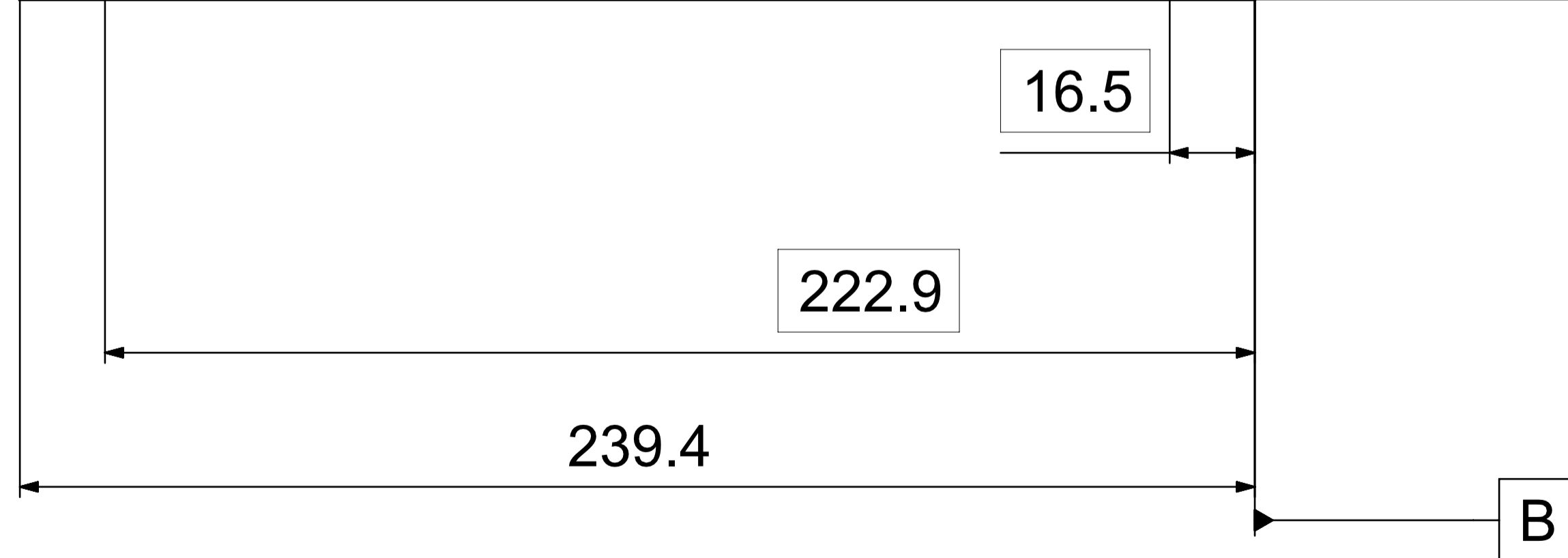
4.7752 typical

\varnothing	$\varnothing 0.002$	\textcircled{M}	A	B	C
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4X $\varnothing 5$ $\begin{matrix} +0.05 \\ 0 \end{matrix}$ Thru

\varnothing	$\varnothing 0.005$	\textcircled{M}	A	B	C
---------------	---------------------	-------------------	---	---	---



UNLESS OTHERWISE SPECIFIED

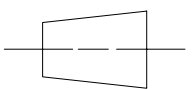
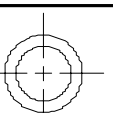
ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

		UNIVERSITY OF ROCHESTER	
		TITLE	
FIRST ISSUED	4/29/2021	DRAWN BY	
DRAWN BY	ZHOU	MATERIAL	
MATERIAL	PVC Plastic	FINISH	
FINISH	None	REVIEWED BY	
REVIEWED BY		SIZE	DRG NO.
		A1	mountingBoard
		SCALE 1:1	
		SHEET 2 OF 2	

Mounting Board

mountingBoard

SHEET REV A



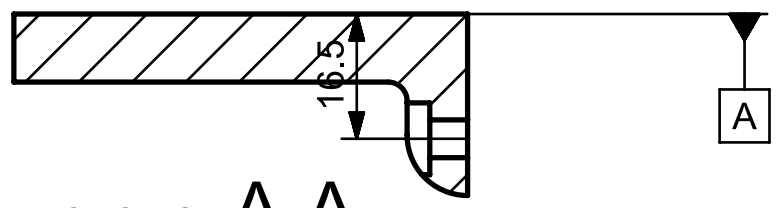
$\varnothing 9.5$ $+0.05$
 -0.05 3 DEEP

$\varnothing 5$ $+0.05$
 0 THRU

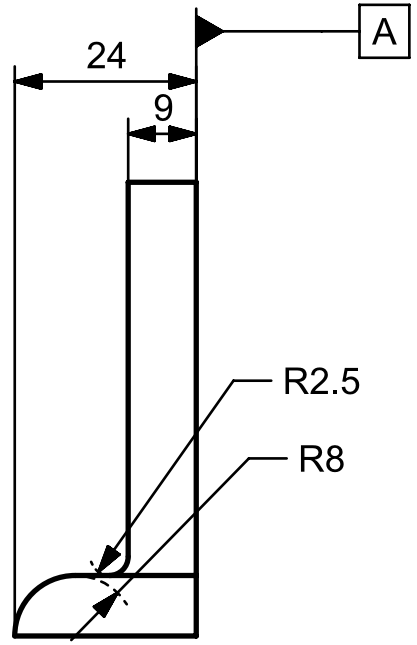
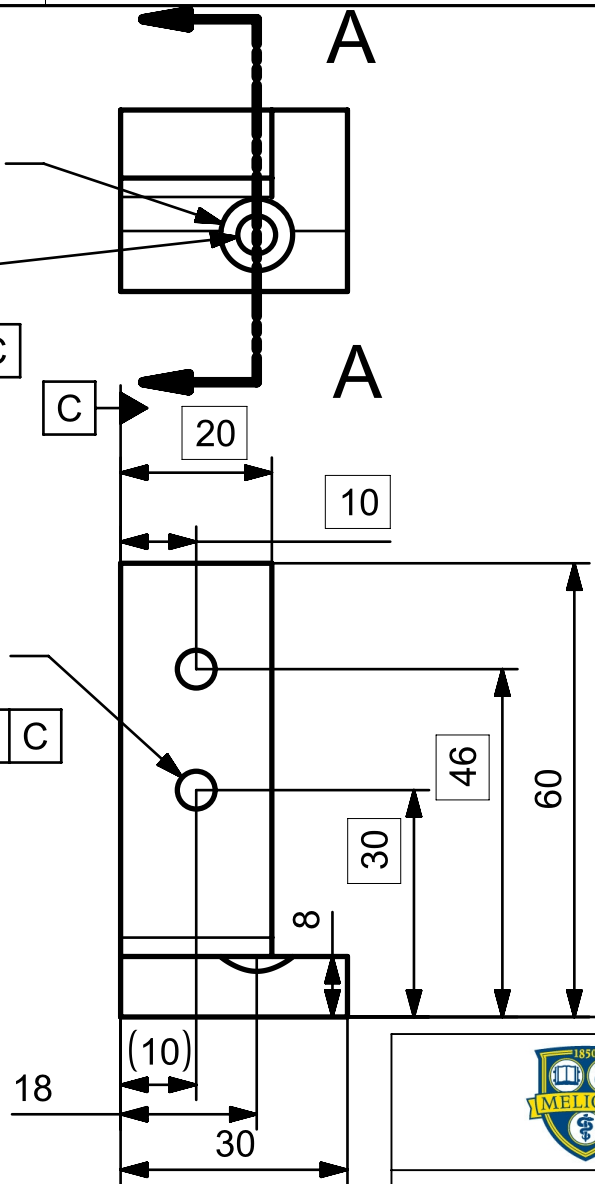
\varnothing	$\varnothing 0.005$	(M)	A	B	C
---------------	---------------------	-----	---	---	---

2X $\varnothing 5$ $+0.05$
 0 THRU

\varnothing	$\varnothing 0.005$	(M)	A	B	C
---------------	---------------------	-----	---	---	---



SECTION A-A



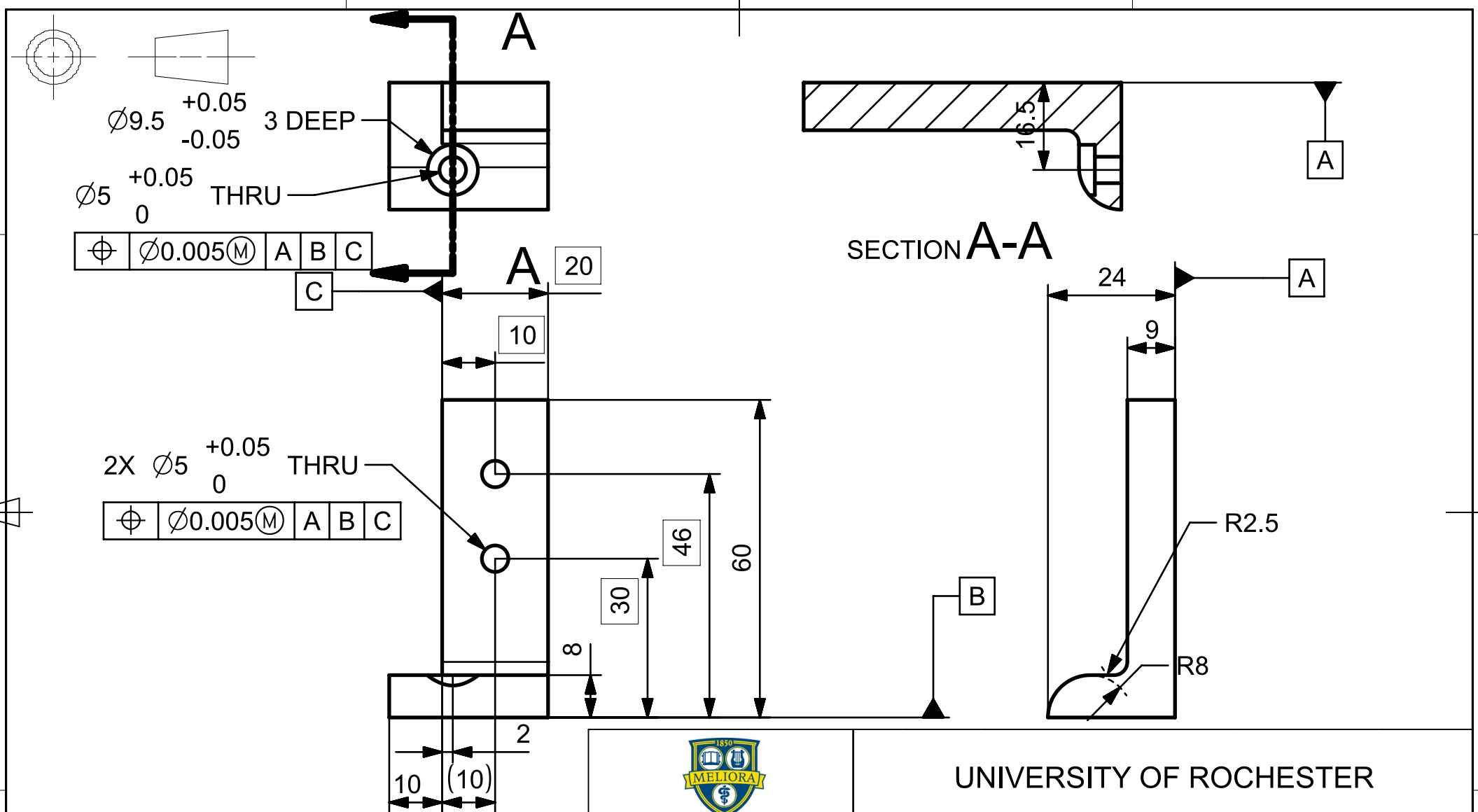
UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM

FIRST ISSUED	03/28/2021	TITLE BOARD BRACKET MountingPlate			
DRAWN BY	ZHOU				
MATERIAL	ABS PLASTIC				
FINISH	NONE				
REVIEWED BY		SIZE	DRG NO.	SHEET REV	
		A4		A	
		SCALE 1:1	SHEET 1 OF 1		



$\varnothing 9.5$ $+0.05$
 -0.05 3 DEEP
 $\varnothing 5$ $+0.05$
 0 THRU

$\varnothing 0.005$ (M) A B C

2X $\varnothing 5$ $+0.05$
 0 THRU

$\varnothing 0.005$ (M) A B C

SECTION A-A

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

ALL DIMENSIONS IN MM

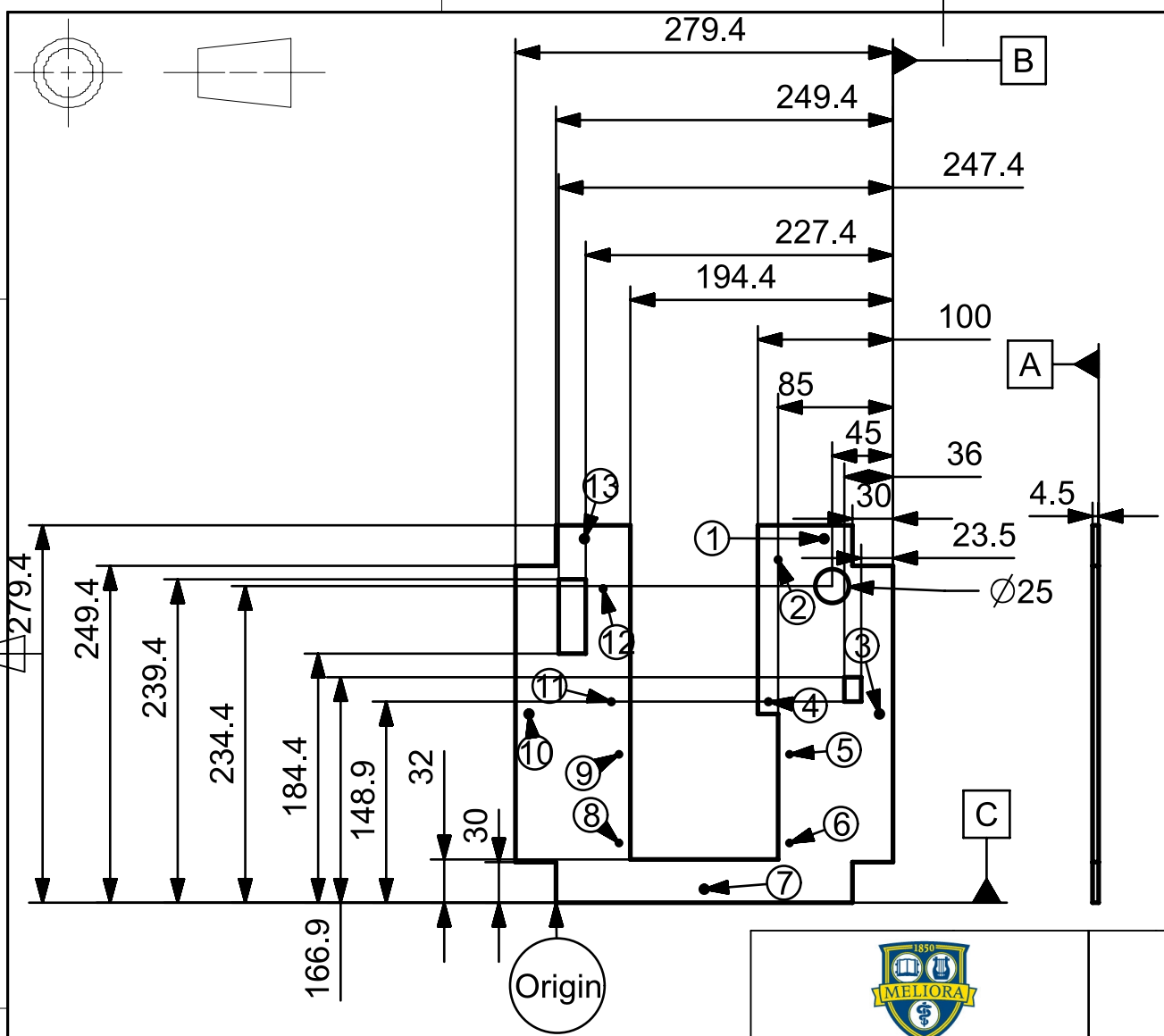


UNIVERSITY OF ROCHESTER

FIRST ISSUED	03/28/2021
DRAWN BY	ZHOU
MATERIAL	ABS PLASTIC
FINISH	NONE
REVIEWED BY	

TITLE		SHEET REV
BOARD BRACKET 2		
SIZE	DRG NO.	A
A4	MountingPlate2	

SCALE 1:1 SHEET 1 OF 1



Point	X (From origin, mm)	Y (From Origin, mm)	Diameter (mm)
1	198.4	269.4	5
2	164.4	253.9	3.3
3	239.4	139.7	5
4	157.2	148.8	3.3
5	172.8	109.8	3
6	172.8	44.2	3
7	109.7	10	5
8	46.6	44.2	3
9	46.6	109.8	3
10	-20	139.7	5
11	40.9	148.8	3.3
12	34.9	232.4	3.3
13	21	269.4	5
Size Tolerance for all holes (mm)			±0.005
Position tolerance for all holes (mm)			±0.005



UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
± 0.5°	± 0.500	± 0.100	± 0.010	± 0.005

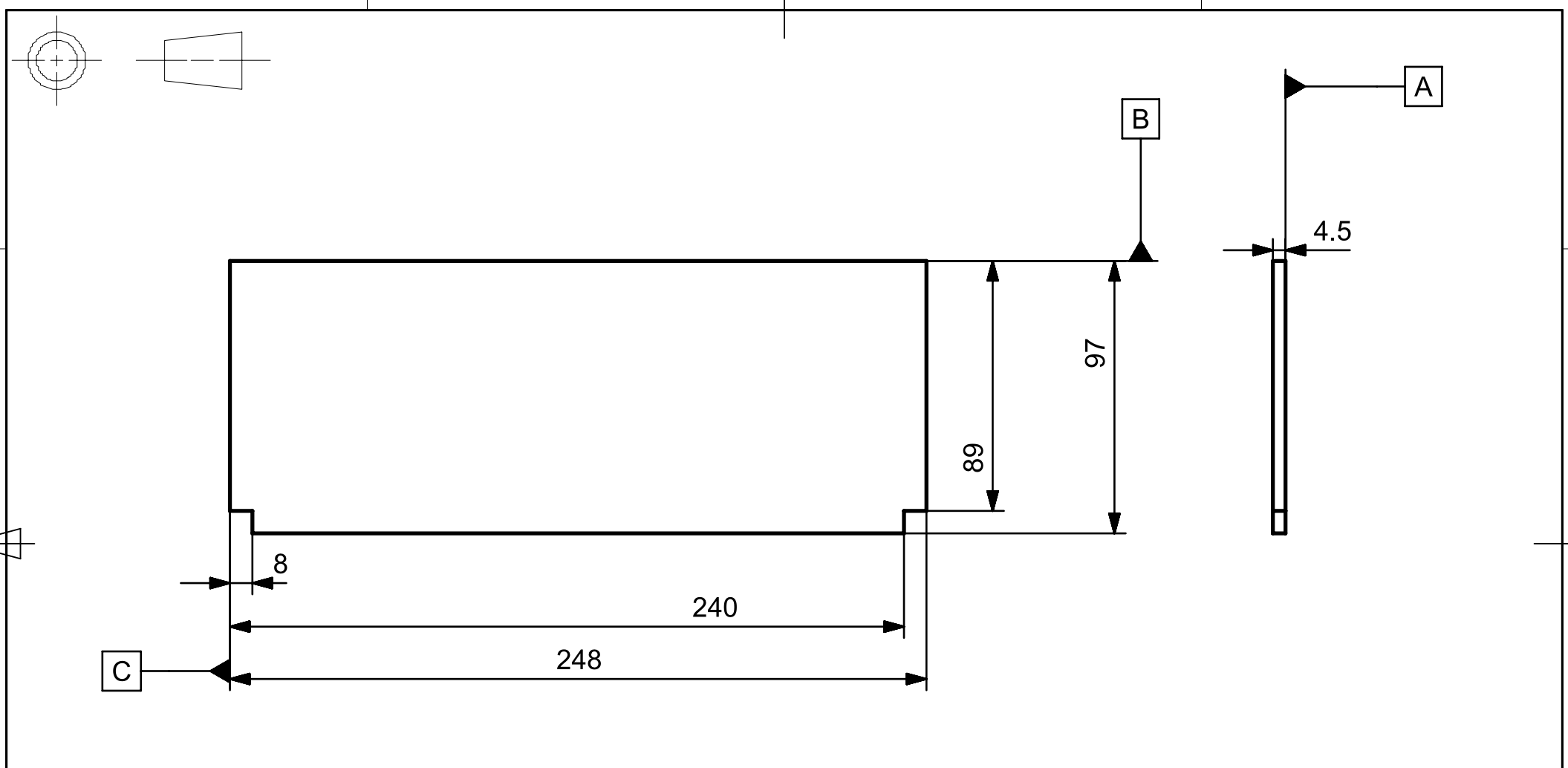
FIRST ISSUED	03/28/2021	TITLE	
DRAWN BY	Zhou	SCREEN MOUNTING BRACKET MountScreenPlate	
MATERIAL	ABS PLASTIC		
FINISH	NONE		
REVIEWED BY			
		SIZE	DRG NO.
		A4	
		SHEET REV	
		A	

SCREEN MOUNTING BRACKET

MountScreenPlate

ALL DIMENSIONS IN MM

SCALE 1:5 SHEET 1 OF 1



UNIVERSITY OF ROCHESTER

FIRST ISSUED	04/29/2021
DRAWN BY	ZHOU
MATERIAL	ACRYLIC
FINISH	NONE
REVIEWED BY	

TITLE	
SIDE PANEL	
SIZE	DRG NO.
A4	sidePanel
SHEET REV	
A	

ALL DIMENSIONS IN MM

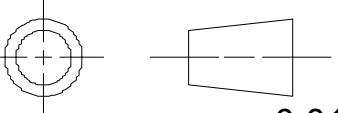
SCALE 1:1 SHEET 1 OF 1

1

2

3

4



2X $\varnothing 5$ $\begin{matrix} +0.01 \\ -0.01 \end{matrix}$ THRU

\varnothing	$\varnothing 0.005$	\textcircled{M}	A	B	C
---------------	---------------------	-------------------	---	---	---

11

29.5

29.6

10.5

40

10

23.5

36

45

B

C

A

4.7625

A

A

B

B

C

C

D

D



UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	± 0.500	± 0.100	± 0.010	± 0.005

FIRST ISSUED	03/31/2021	TITLE		
DRAWN BY	ZHOU	SWITCH MOUNTING BOARD		
MATERIAL	ACRYLIC			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY		A4	SwitchMountBoard	A
		SCALE 1:1	SHEET 1 OF 1	

ALL DIMENSIONS IN MM

1

2

3

4