

4	23C018012I	1
3	23C062000N	1
2	23C039000O	1
1	23C022002D	1
PC NO	PART NAME	QTY



UNIVERSITY OF ROCHESTER

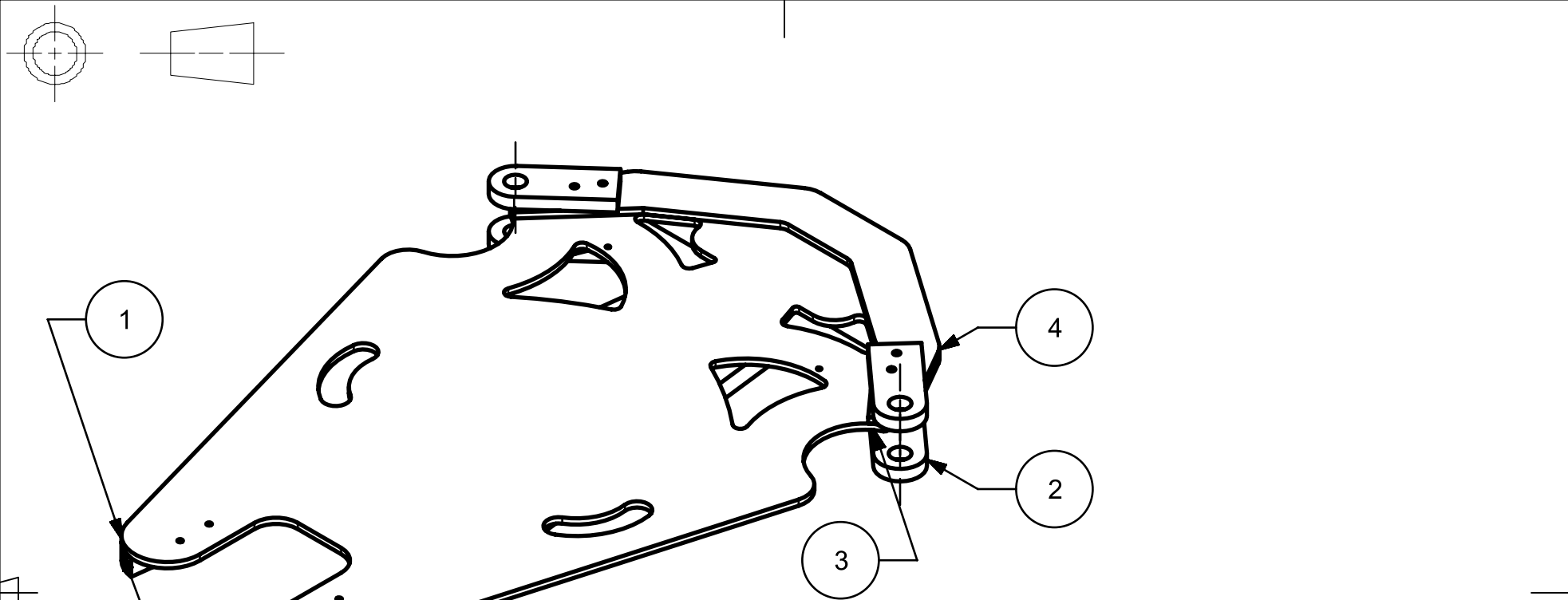
FIRST ISSUED	4/26/23
DRAWN BY	wcruz
MATERIAL	all
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Drill Cart Alpha- Kermit Kart Assembly		
SIZE	DRG NO.	SHEET REV
A	23c022001F	A

ALL DIMENSIONS IN INCHES

SCALE 1:1

SHEET 1 OF 1



1	23C022009A	23C022009A	1
2	23C022007A	23C022007A	4
3	23C022008A	23C022008A	2
4	23C022006A	23C022006A	1
5	23C022010A	23C022010A	1
PC NO	PART NAME	NAME	QTY



## UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26
DRAWN BY	wcruz
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Drill Cart Alpha Frame		
SIZE	DRG NO.	SHEET REV
A	23c022002D	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN INCHES

1

2

3

4

A

A

B

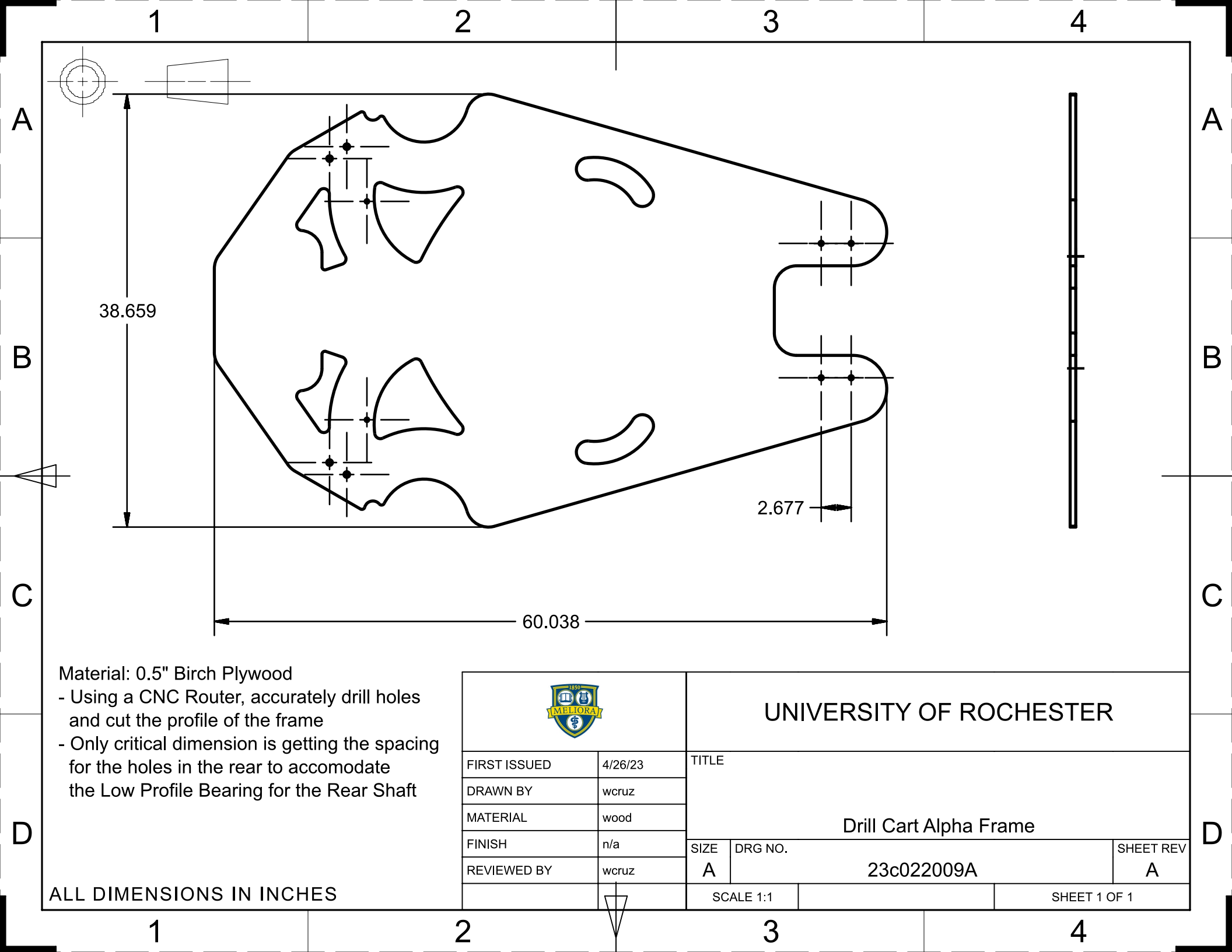
B

C


C

D

D

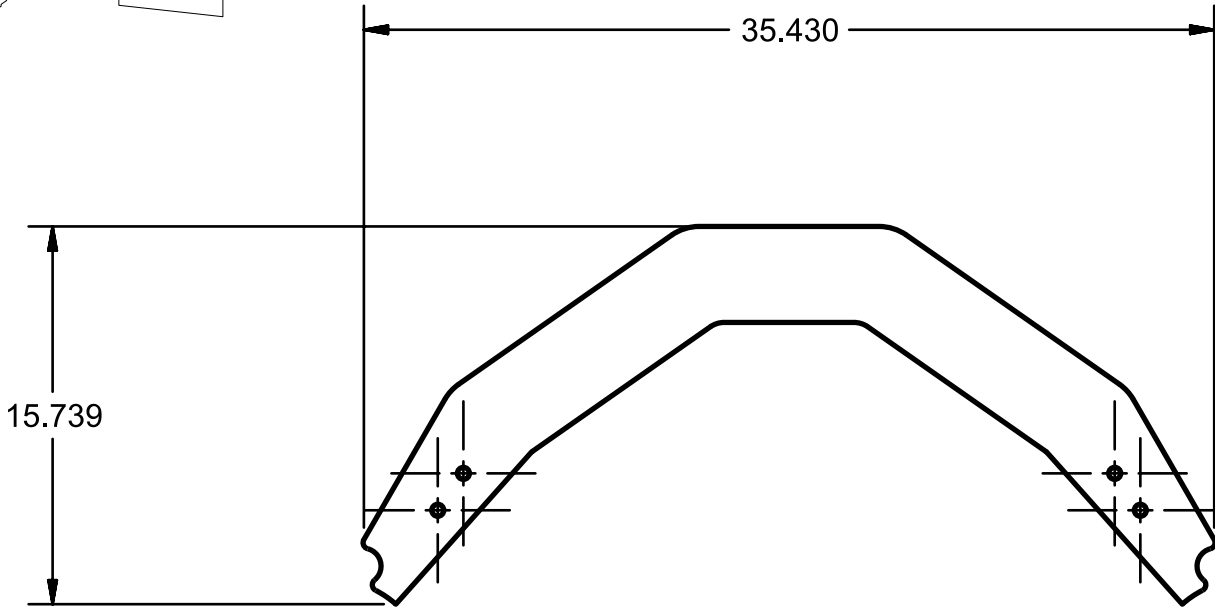
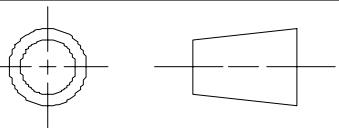


- Material: 0.5" Birch Plywood
- Using a CNC Router, accurately drill holes and cut the profile of the frame
  - Only critical dimension is getting the spacing for the holes in the rear to accommodate the Low Profile Bearing for the Rear Shaft

	
FIRST ISSUED	4/26/23
DRAWN BY	wcruz
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

UNIVERSITY OF ROCHESTER			
TITLE			
Drill Cart Alpha Frame			
SIZE	DRG NO.	SHEET REV	
A	23c022009A	A	
SCALE 1:1		SHEET 1 OF 1	

ALL DIMENSIONS IN INCHES



Material: 0.5" Birch Plywood  
 - Using a CNC Router, accurately drill holes and cut the profile of the frame brace  
 - Only critical dimension is getting the spacing for the holes in the front to accommodate supporting arms



UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23	TITLE  Front Frame Brace		
DRAWN BY		wcruz			
MATERIAL		wood			
FINISH		n/a			
REVIEWED BY		wcruz	SIZE	DRG NO.	SHEET REV
			A	23c022006A	A
ALL DIMENSIONS IN INCHES			SCALE 1:1	SHEET 1 OF 1	

A

B

C

D

A

B

C

D

1

2

3

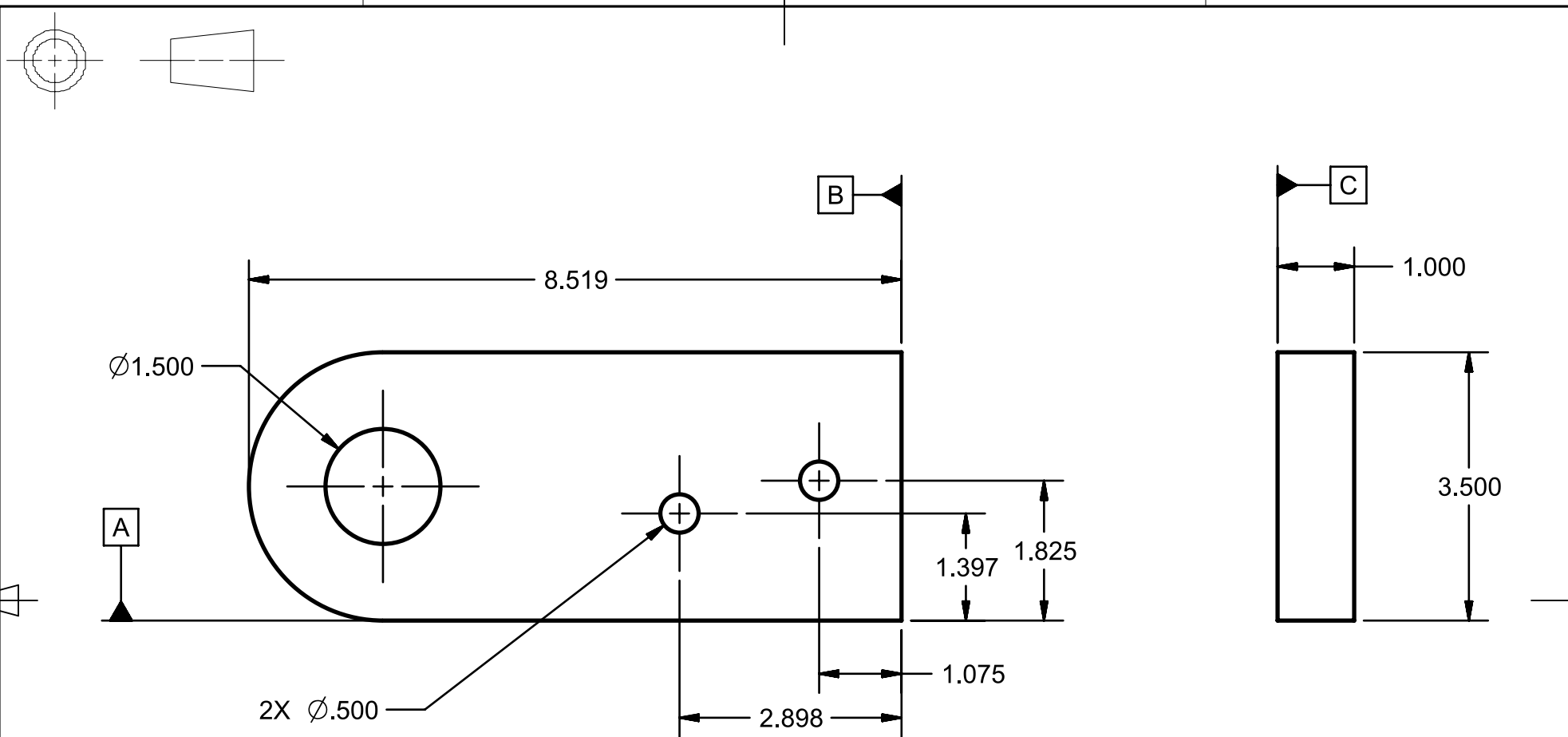
4


1

2

3

4



		<b>UNIVERSITY OF ROCHESTER</b>		
FIRST ISSUED	4/26/23	TITLE  <b>Supporting Knuckle Arm</b>		
DRAWN BY	wcruz			
MATERIAL	wood	SIZE A    DRG NO. <b>23c022007A</b> SHEET REV <b>A</b>		
FINISH	n/a			
REVIEWED BY	wcruz	SCALE 1:1    SHEET 1 OF 1		

ALL DIMENSIONS IN INCHES

1

2

3

4

A

A

B

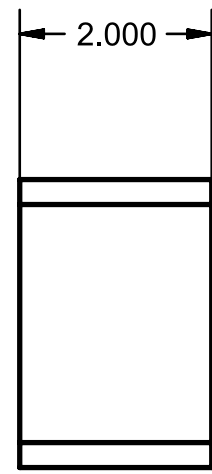
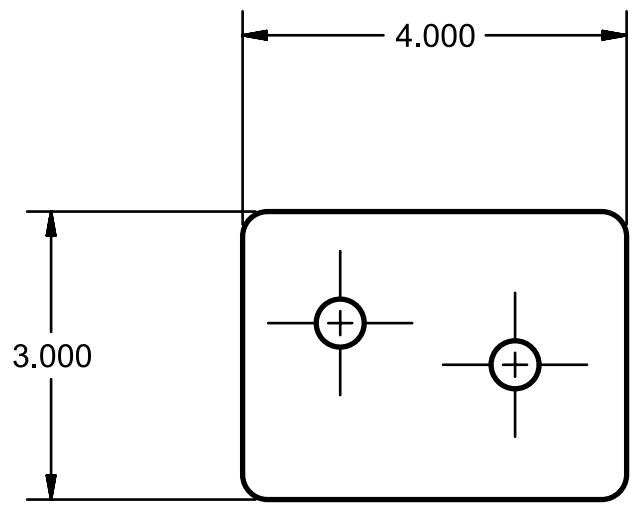
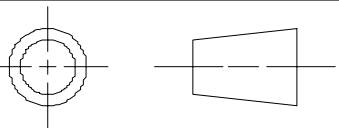
B

C

C

D

D



- Spacer height is relative to the height of the knuckles and delrin inserts to properly secure the steering arm in place



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FIRST ISSUED		4/26/23	TITLE  Frame Spacer Block		
DRAWN BY		wcruz			
MATERIAL		wood			
FINISH		n/a			
REVIEWED BY		wcruz			
SIZE	DRG NO.		SHEET REV		
A	23c022008A		A		
SCALE 1:1			SHEET 1 OF 1		

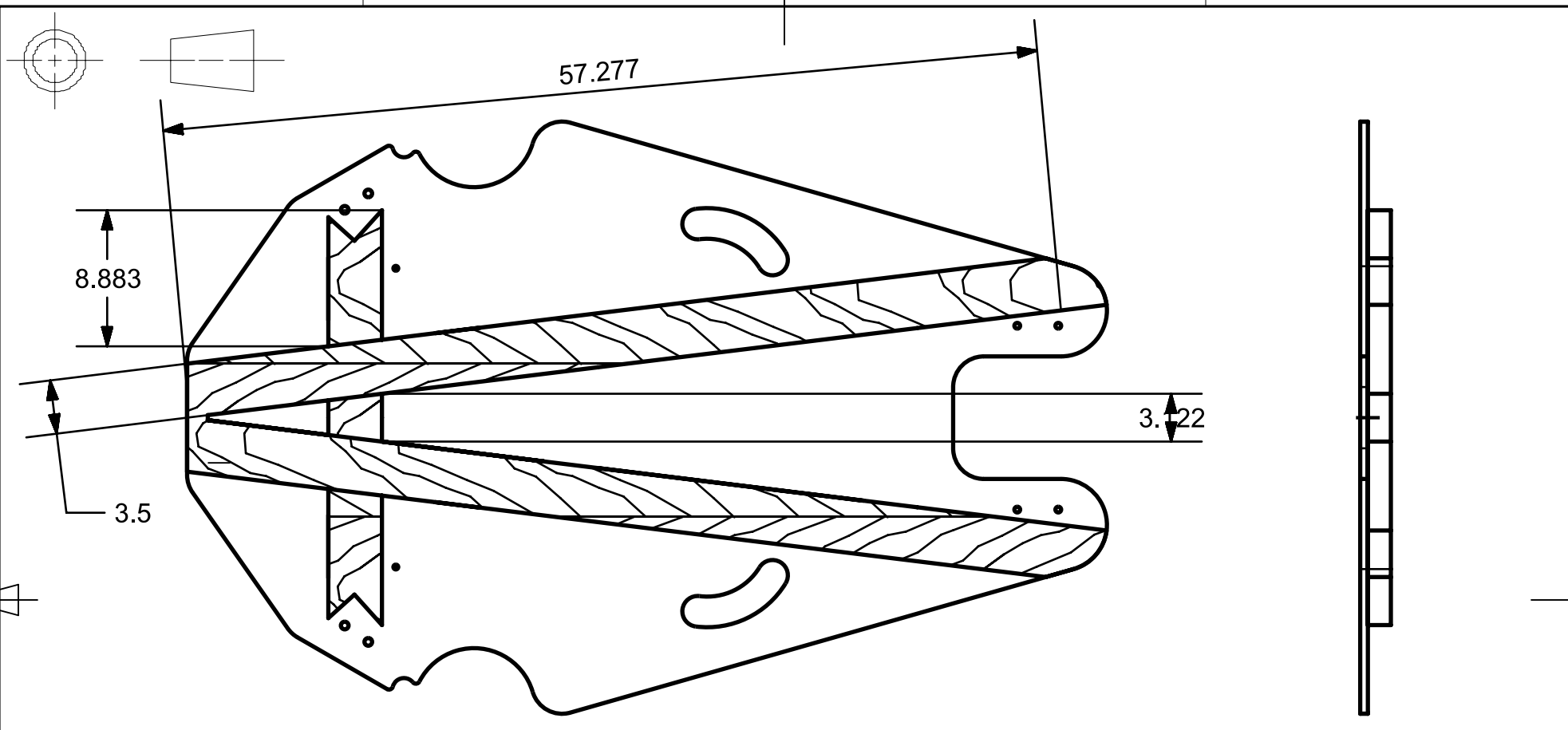
ALL DIMENSIONS IN INCHES

1

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4



SCALE 1:10

- Using 2x4 wood planks, create the sub frame structure
- The long pieces need to span over the entire cart in order to ensure stability and stiffness
- The cross member need to be notched to match the support arm profiles

ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE			
DRAWN BY		wcruz		Sub-Frame Supports			
MATERIAL		wood					
FINISH		n/a		SIZE	DRG NO.	SHEET REV	
REVIEWED BY		wcruz		A	23c022010A	A	
				SCALE 1:1		SHEET 1 OF 1	

1

2

3

4

A

A

B

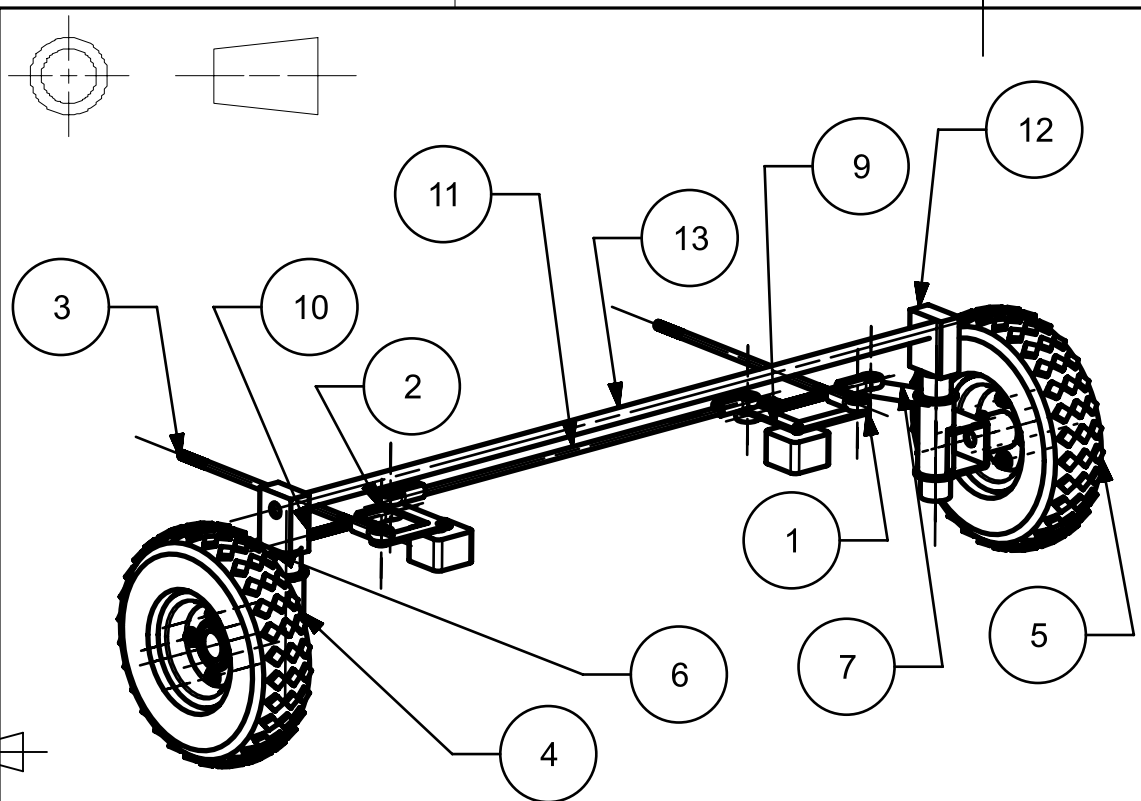
B

C

C

D

D



13	23C018040A	1
12	23C018039A	2
11	23C018038A	1
10	23C018037C	2
9	23C018036A	2
8	23C018035A	2
7	23C018020C	1
6	23C018025B	4
5	10_INCH_WHEEL_KERMIT	2
4	23C018019C	1
3	23C018022A	2
2	23C018024A	8
1	23C018017A	2
PC NO	PART NAME	QTY



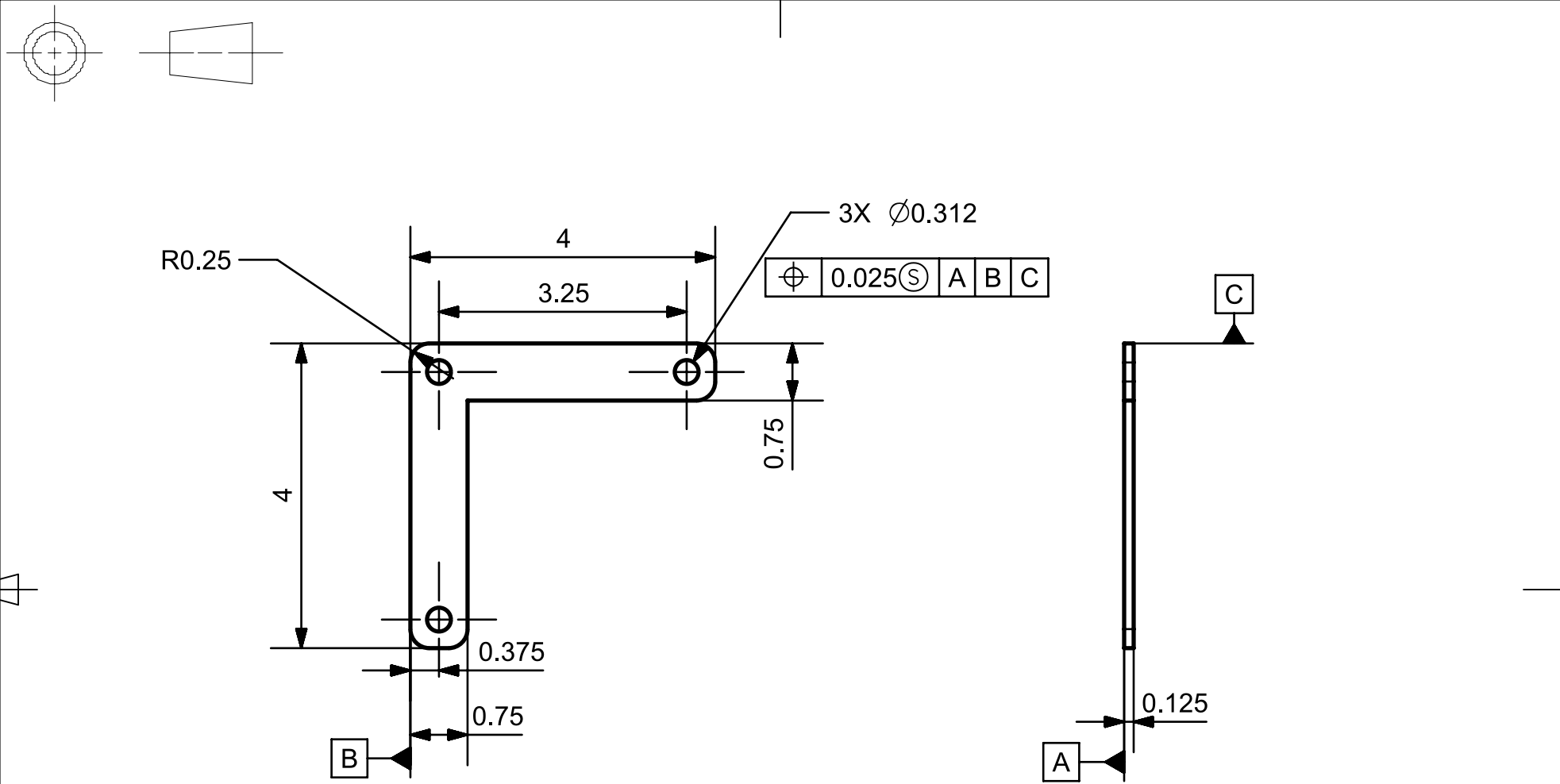
UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	pbrodник
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Steering Assembly		
SIZE	DRG NO.	SHEET REV
A	23c018012H	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN INCHES





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
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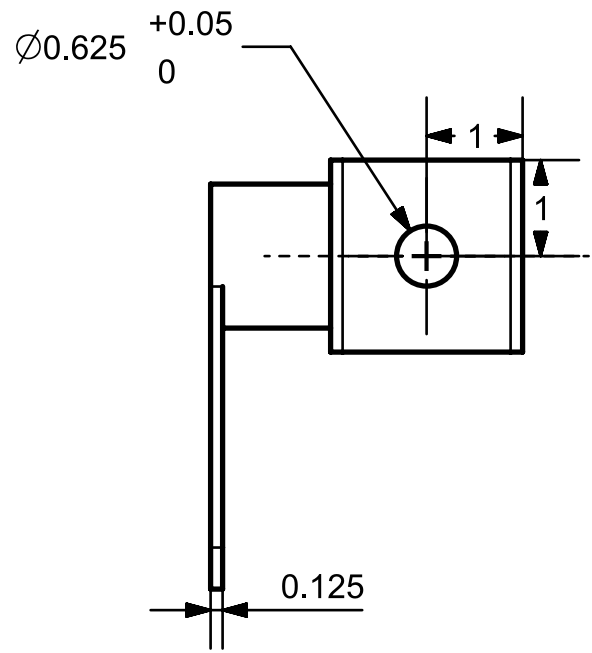
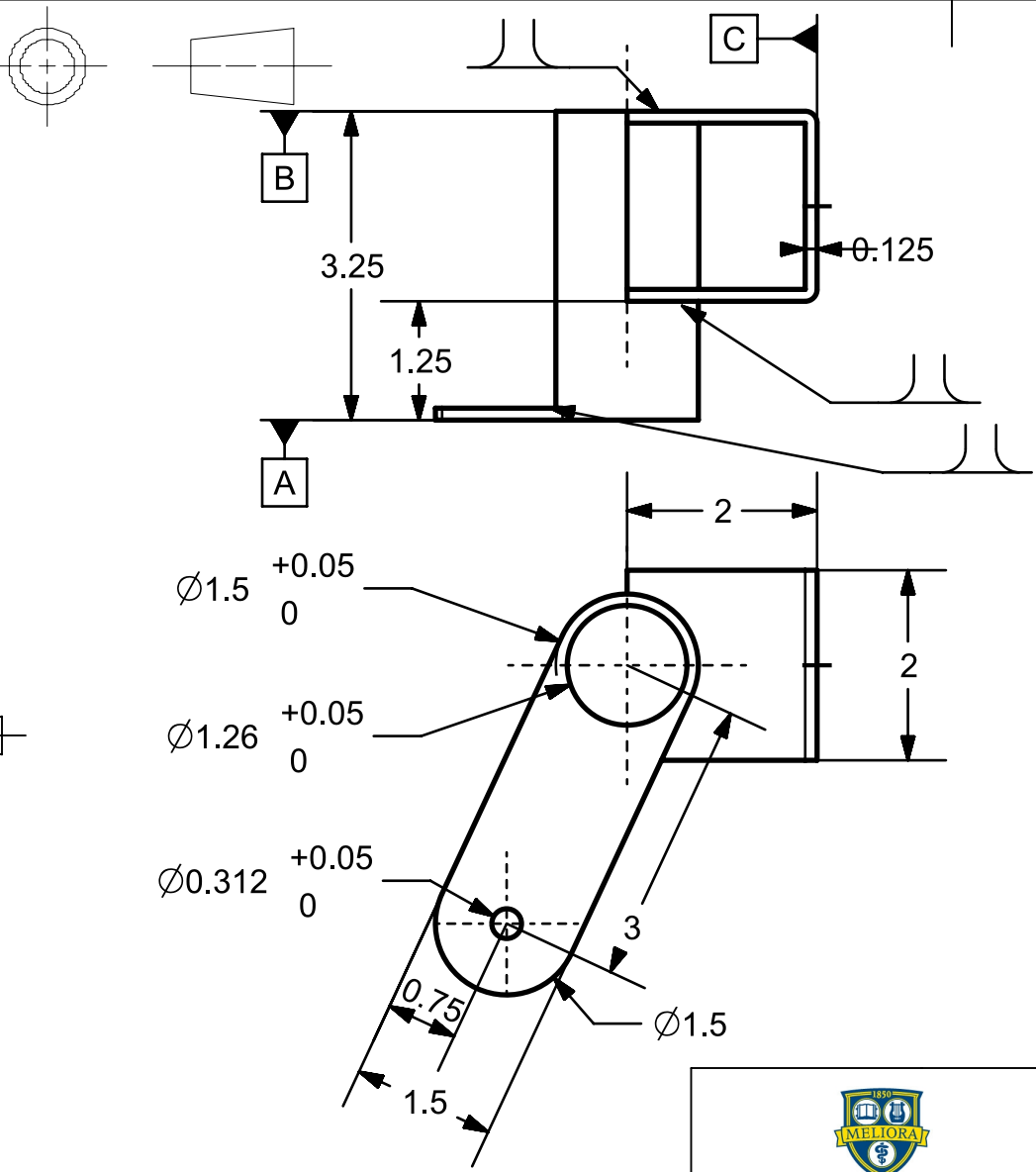
ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER


FIRST ISSUED	3/2/2023
DRAWN BY	BRODNIK
MATERIAL	AISI 4340
FINISH	NONE
REVIEWED BY	

TITLE			
PITMAN_ARM			
SIZE	DRG NO.	SHEET REV	
A	23c018017A	A	
SCALE 1:1		SHEET 1 OF 1	



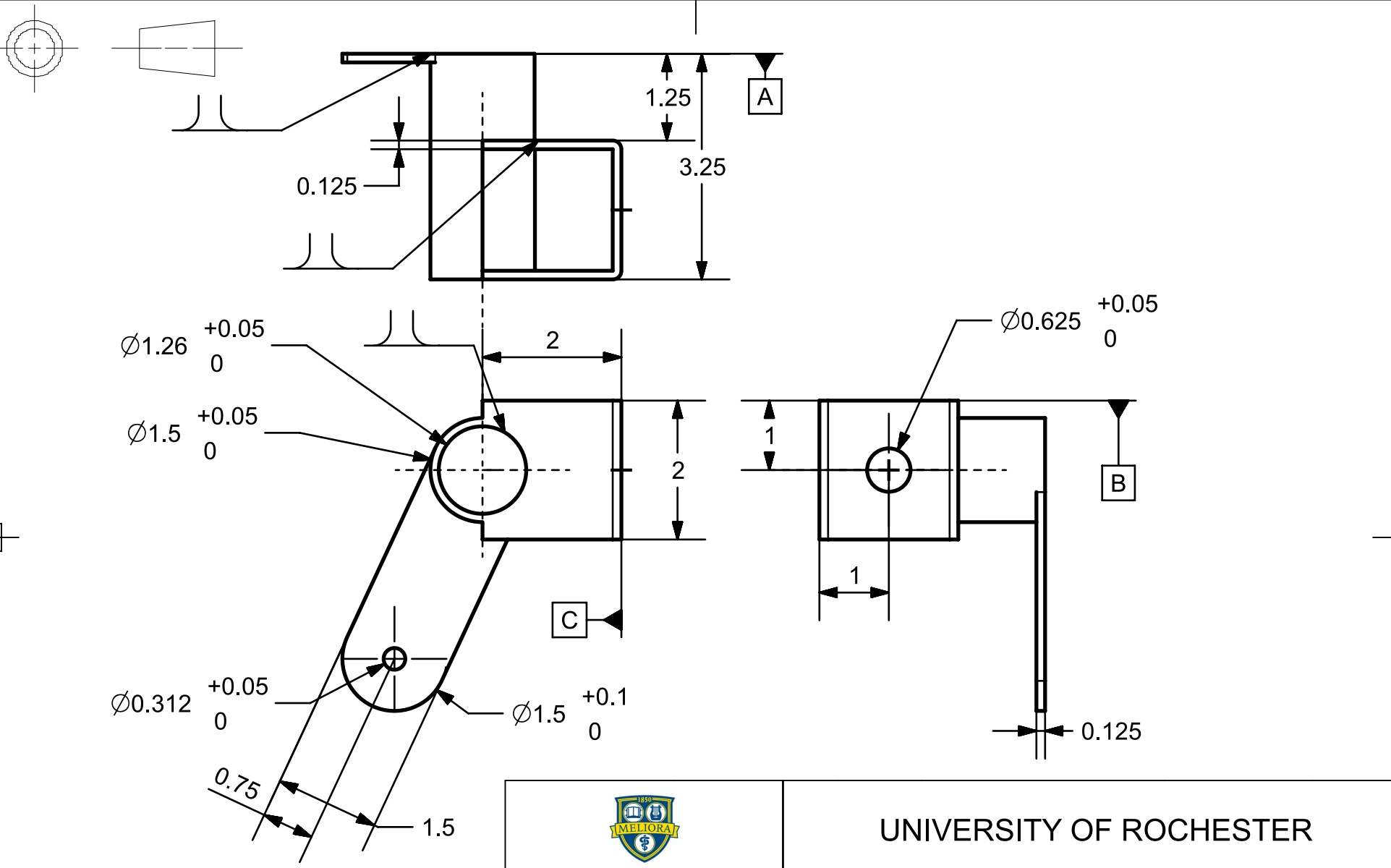
UNLESS OTHERWISE SPECIFIED

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

	
FIRST ISSUED	3/2/2023
DRAWN BY	BRODNIK
MATERIAL	AISI 4340
FINISH	NONE
REVIEWED BY	

UNIVERSITY OF ROCHESTER			
TITLE			
STEERING_KNUCKLE			
SIZE	DRG NO.	SHEET REV	
A	23c018019C	A	
SCALE 1:1		SHEET 2 OF 2	

ALL DIMENSIONS IN INCHES



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
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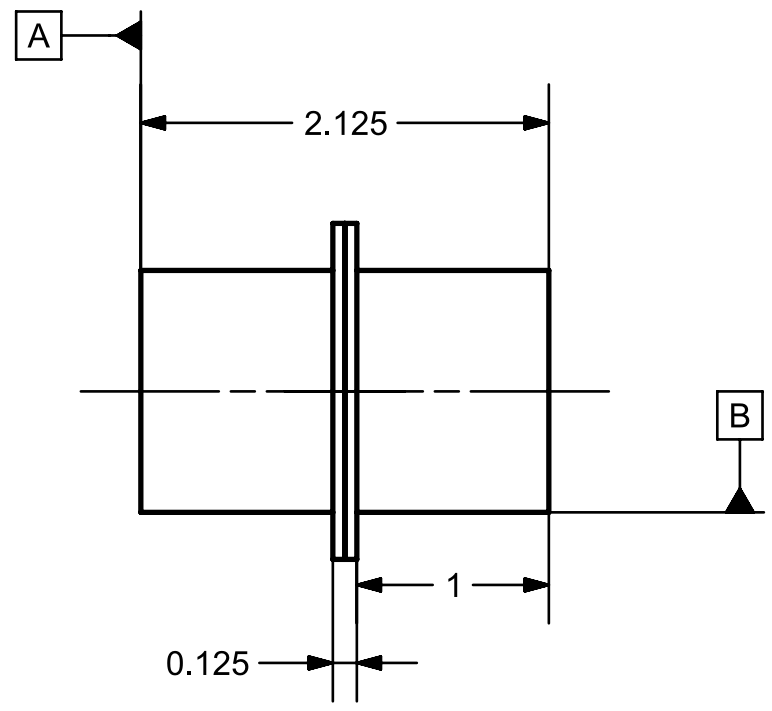
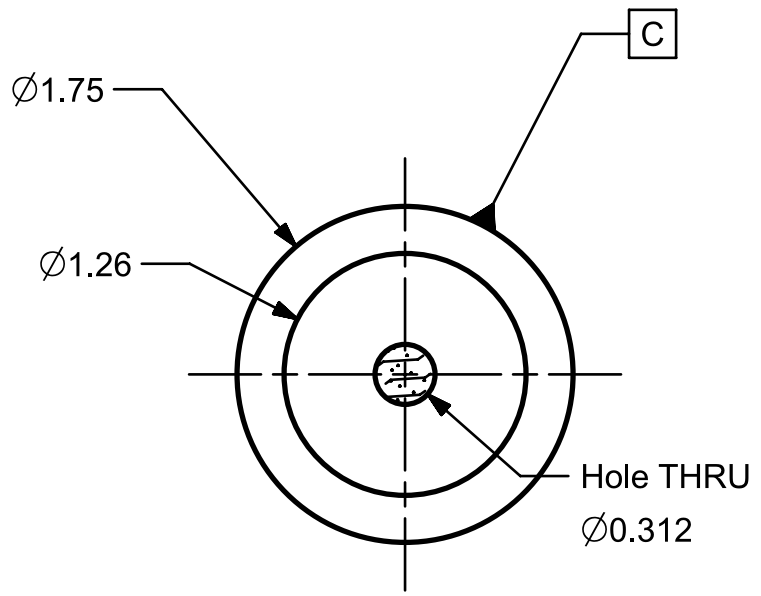
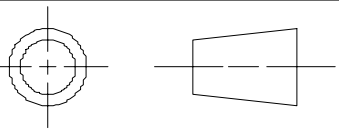
ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER


FIRST ISSUED	3/2/2023
DRAWN BY	BRODNIK
MATERIAL	AISI 4340
FINISH	NONE
REVIEWED BY	

TITLE		
STEERING_KNUCKLE		
SIZE	DRG NO.	SHEET REV
A	23c018020C	A
SCALE 1:1		SHEET 1 OF 1



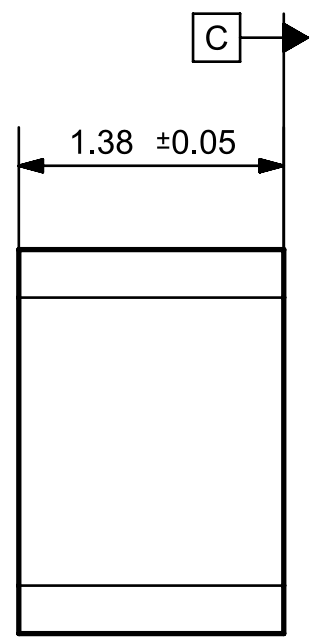
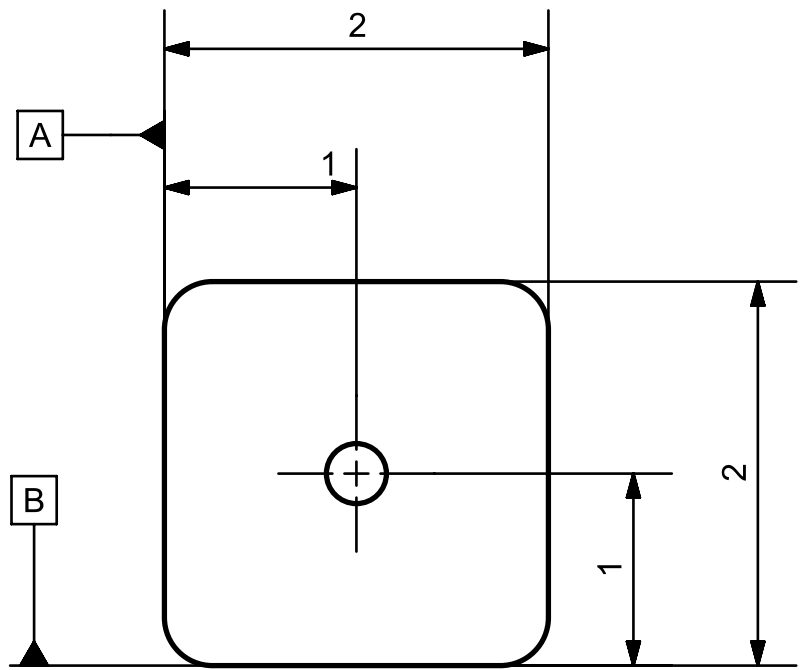
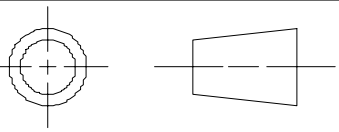
UNLESS OTHERWISE SPECIFIED

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

	
FIRST ISSUED	3/28/2023
DRAWN BY	BRODNIK
MATERIAL	DELFIN
FINISH	NONE
REVIEWED BY	wcruz

UNIVERSITY OF ROCHESTER			
TITLE			
BUSHING			
SIZE	DRG NO.	SHEET REV	
A	23c018025B	A	
SCALE 1:1		SHEET 1 OF 1	

ALL DIMENSIONS IN INCHES



UNLESS OTHERWISE SPECIFIED

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

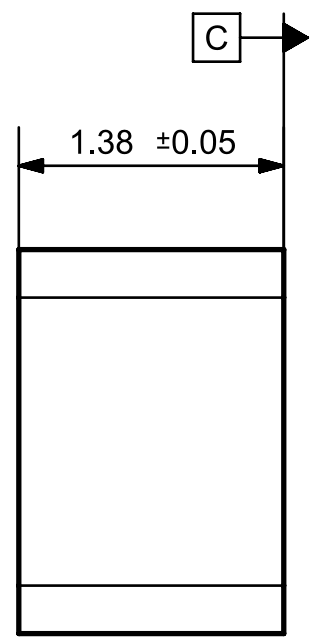
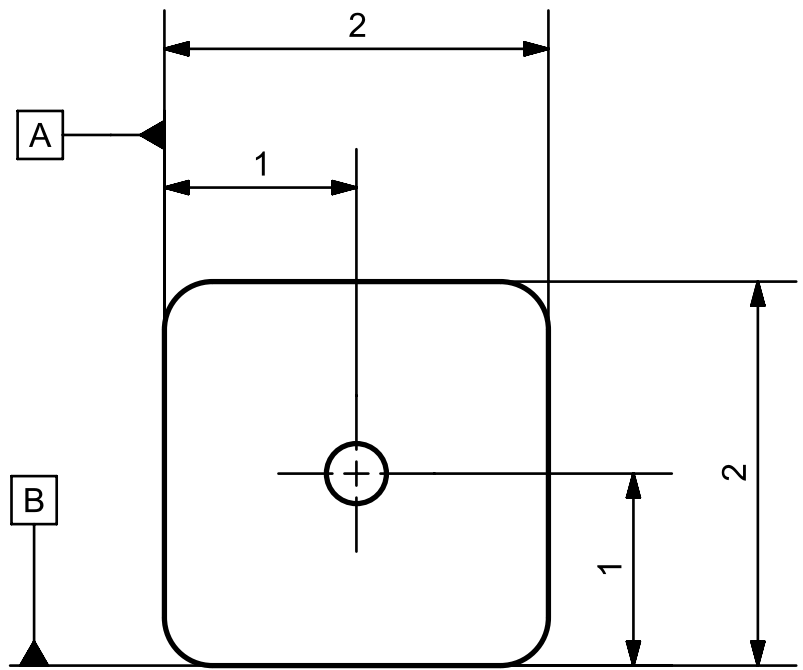
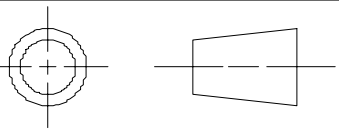
ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	pbrodник
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
L-Bracker Stand Off		
SIZE	DRG NO.	SHEET REV
A	23c018036A	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 INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	pbrodник
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

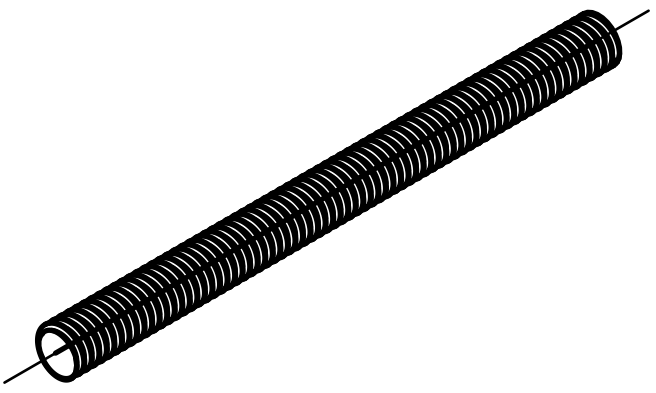
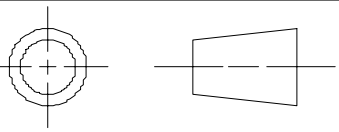
TITLE		L-Bracker Stand Off		SHEET REV A
SIZE A	DRG NO. 23c018036A			
SCALE 1:1		SHEET 1 OF 1		

1

2

3

4



5/16-24 Threaded Rod Cut Lengths:

- 1 X 15"
- 4 X 9"
- 2 X 7"

5/8- 24

- 1 X 36"
- 4 X 7"
- 2 X 5"

A

A

B

B

C

C

D

D

UNLESS OTHERWISE SPECIFIED

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



UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE	
DRAWN BY		pbrodnik		Threaded Rod	
MATERIAL		steel			
FINISH		n/a			
REVIEWED BY		wcruz		SIZE	DRG NO.
				A	23c018037C
				SCALE 1:1	SHEET 1 OF 1
					SHEET 1 OF 1

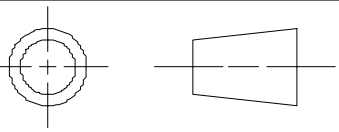
ALL DIMENSIONS IN INCHES

1

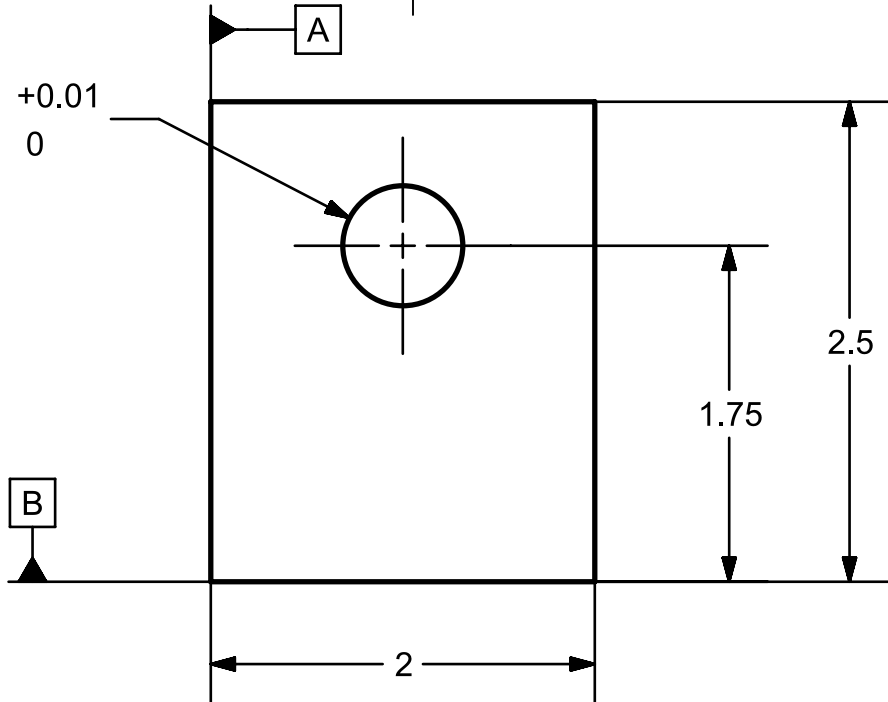
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3

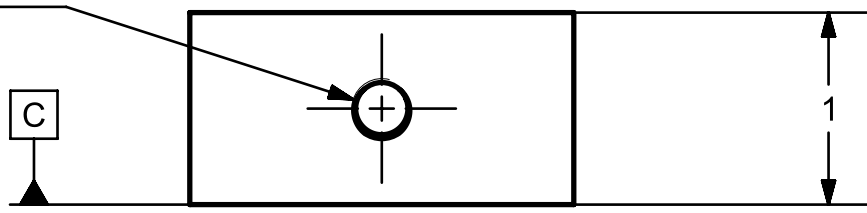
4



$\varnothing 0.625$   $\begin{matrix} +0.01 \\ 0 \end{matrix}$



$\frac{5}{16}$  x24 UNF -2B - 0.63 DEEP



UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

ANGLES $\pm 0.5^\circ$	X $\pm 0.025$	X.X $\pm 0.020$	X.XX $\pm 0.010$	X.XXX $\pm 0.005$	X.XXXX $\pm 0.0005$
---------------------------	------------------	--------------------	---------------------	----------------------	------------------------

FIRST ISSUED		4/24/2023		TITLE	
DRAWN BY		BRODNIK		BRACE HOUSING	
MATERIAL		6061			
FINISH		NONE		SIZE	DRG NO.
REVIEWED BY				A	23c018039A
				SCALE 1:1	SHEET 1 OF 1

ALL DIMENSIONS IN INCHES

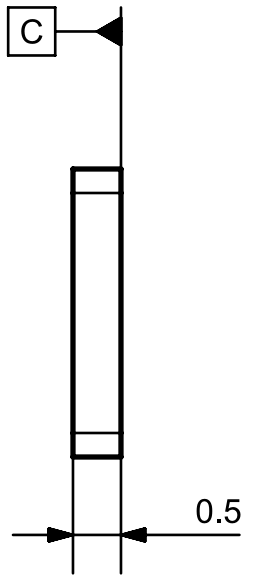
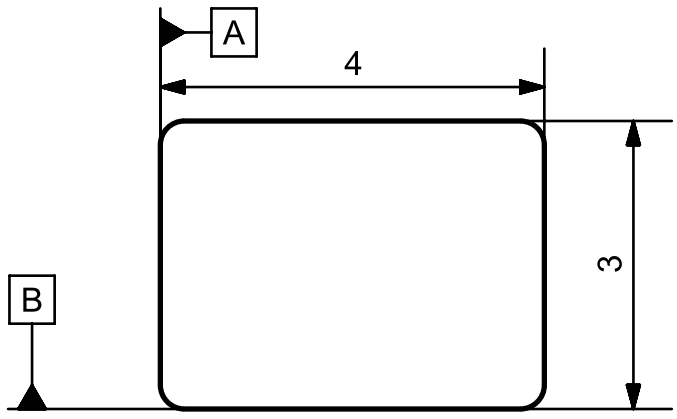
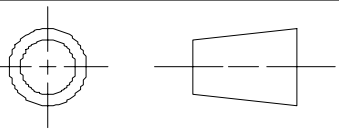
BRACE HOUSING

23c018039A

SCALE 1:1

SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED

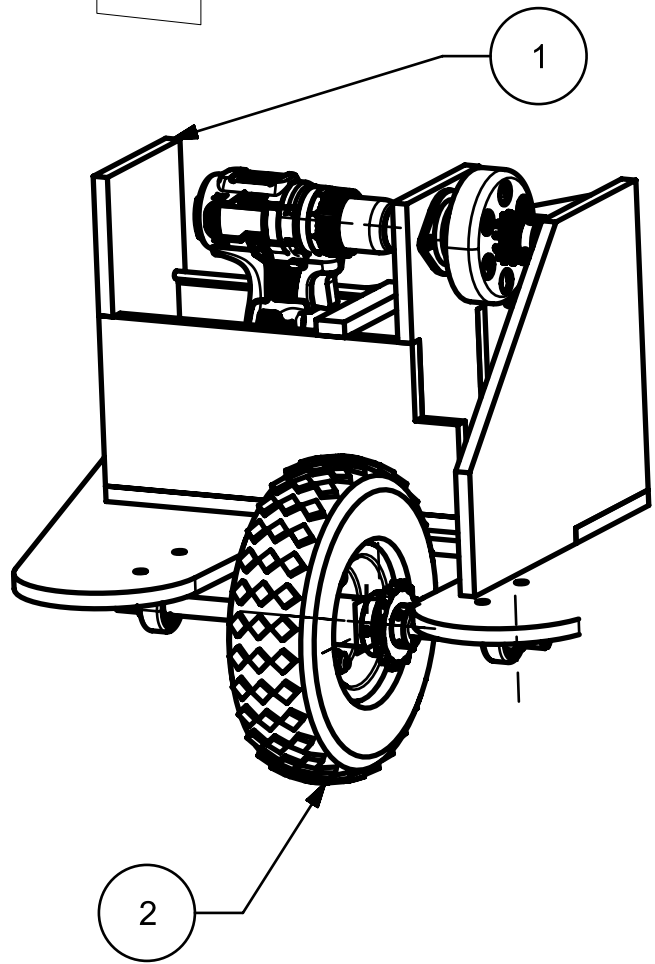
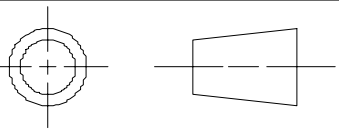
ANGLES	X	X.X	X.XX	X.XXX
$\pm 0.5^\circ$	$\pm 0.500$	$\pm 0.100$	$\pm 0.010$	$\pm 0.005$

ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE  Footrest Blocks	
DRAWN BY		pbrodник			
MATERIAL		wood			
FINISH		n/a			
REVIEWED BY		wcruz		SIZE	DRG NO.
				A	23c018035A
				SHEET REV A	
				SCALE 1:1	SHEET 1 OF 1



2	23C039007G	1
1	23C039014L	1
PC NO	PART NAME	QTY



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		SHEET REV
Drivetrain Assembly		
SIZE	DRG NO.	A
A	23c039000N	A

ALL DIMENSIONS IN INCHES

SCALE 1:1

SHEET 1 OF 2

1

2

3

4

A

A

B

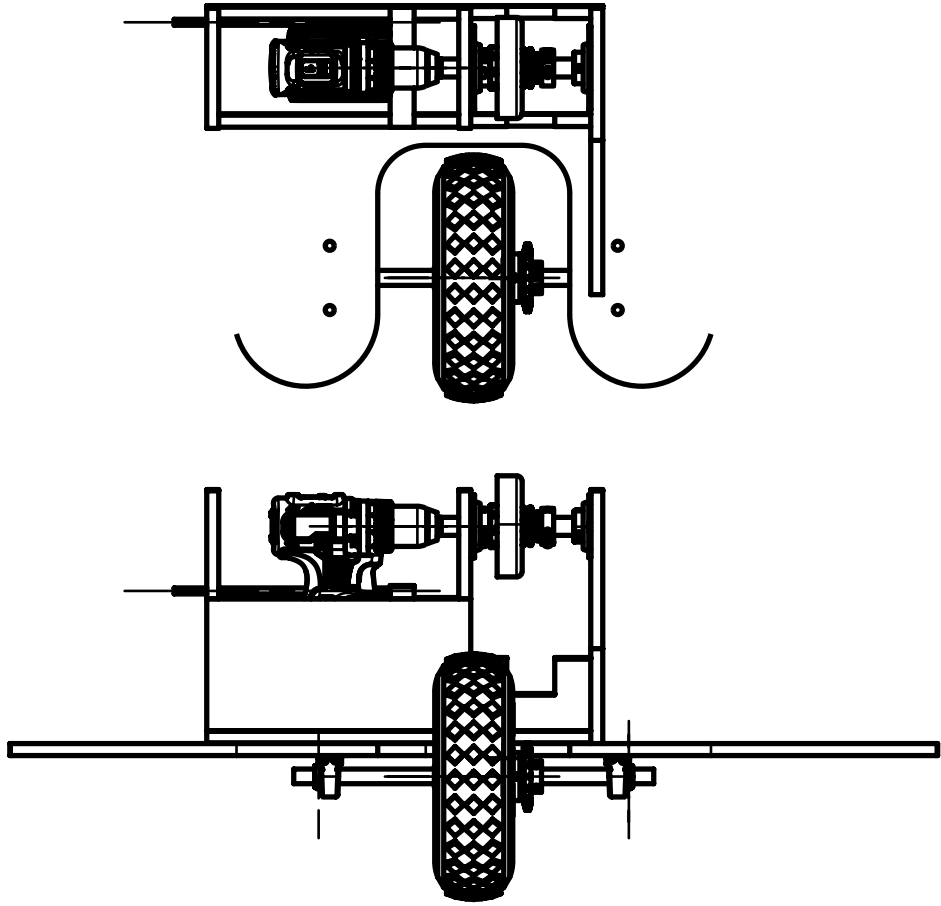
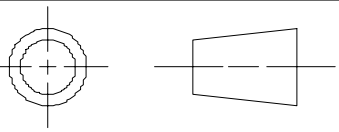
B

C

C

D

D



Drivetrain Assembly Notes:

-Make sure that the centrifugal clutch and the sprocket are in line when mounting the drive shaft and the drill housing



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Drivetrain Assembly		
SIZE	DRG NO.	SHEET REV
A	23c039000N	A

ALL DIMENSIONS IN INCHES

SCALE 1:1

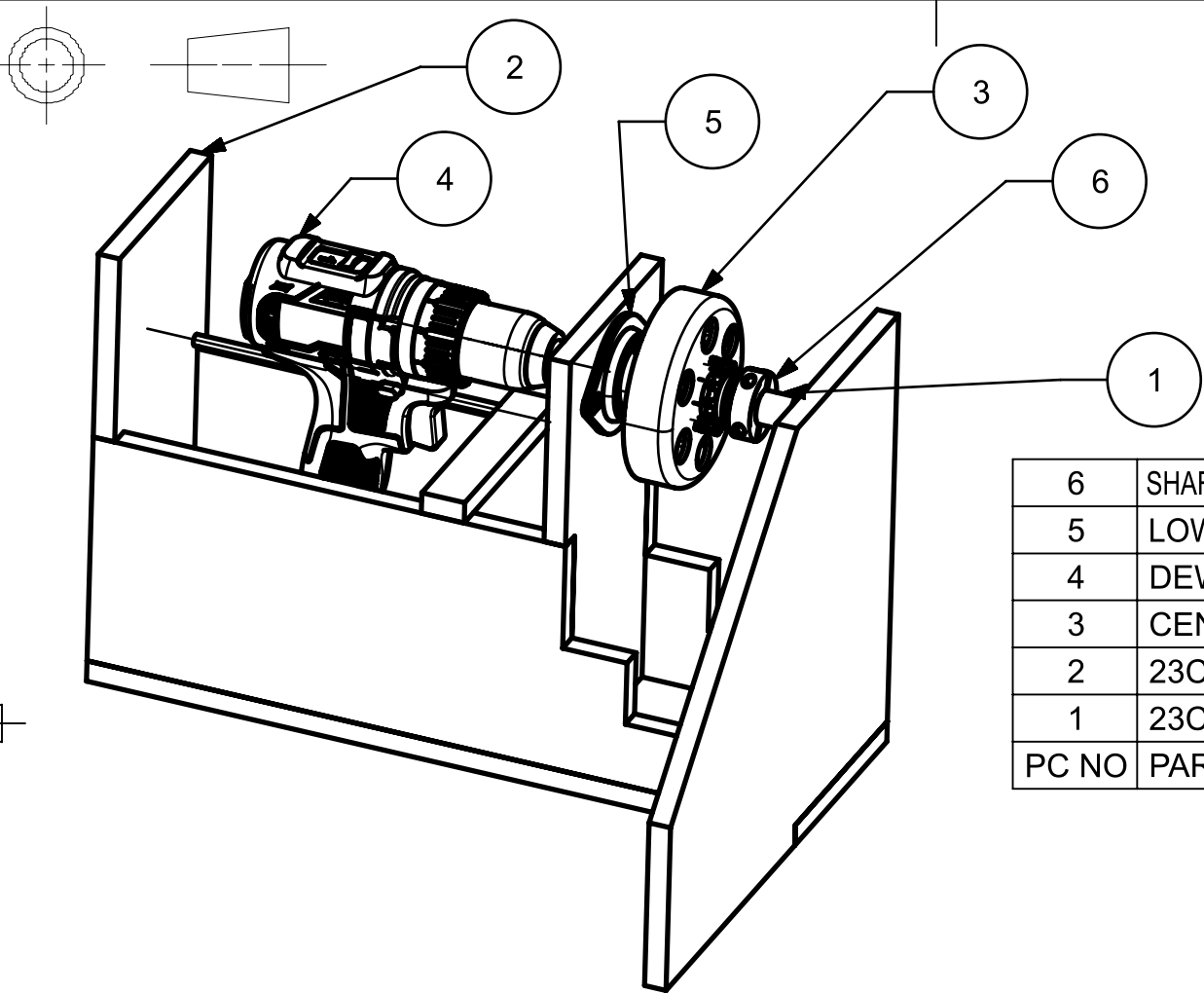
SHEET 2 OF 2

1


2

3

4

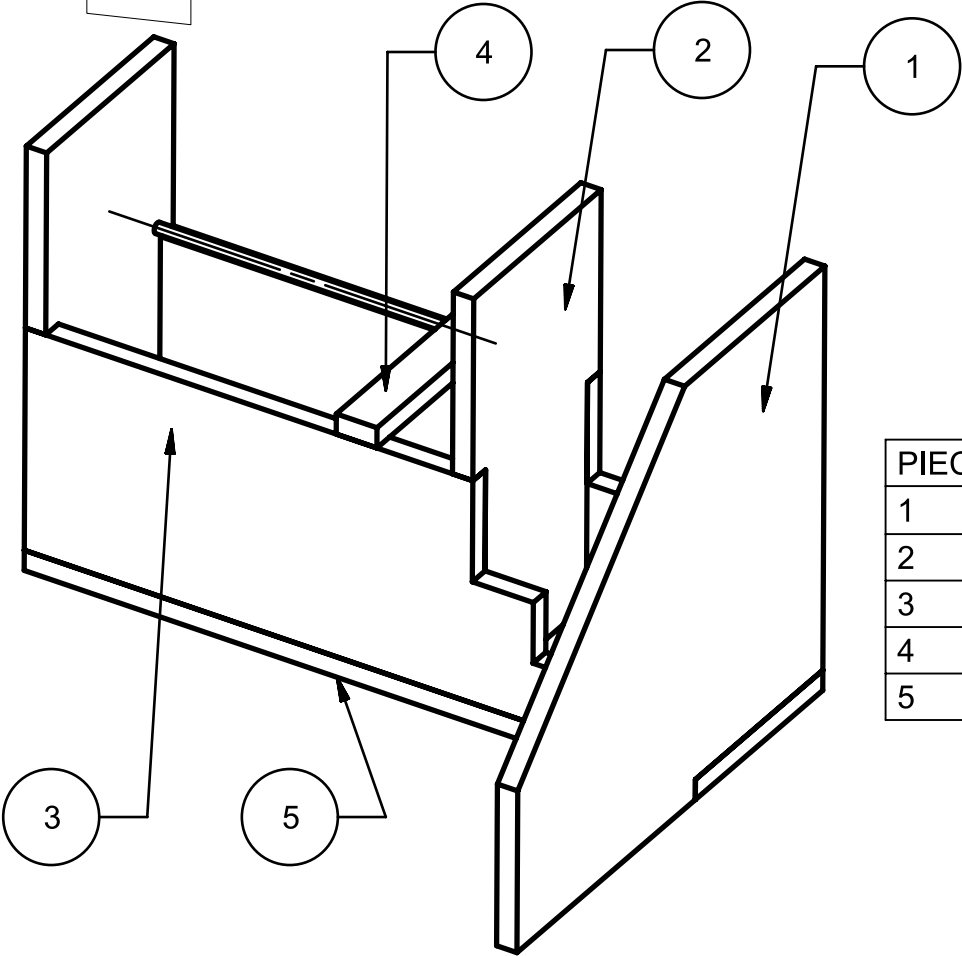
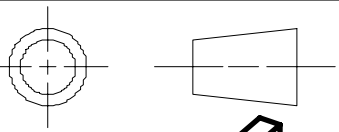


6	SHAFT_COLLAR_DRIVE_SHAFT_3_4_INCH	2
5	LOW-PROFILE-BEARING_5913K73	2
4	DEWALT_20V_DRILL	1
3	CENTRIFUGAL_CLUTCH	1
2	23C039017F	1
1	23C039012E	1
PC NO	PART NAME	QTY

	
FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

UNIVERSITY OF ROCHESTER		
TITLE		
Drill Drive Shaft		
SIZE	DRG NO.	SHEET REV
A	23c039014L	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN INCHES



PIECE	PART NAME	QTY
1	TRUSS SUPPORT	2
2	DRILL SHAFT SUPPORT	2
3	DRILL SIDE SUPPORT	2
4	ACCELERATOR PIVOT	1
5	BOTTOM PIECE	1



UNIVERSITY OF ROCHESTER

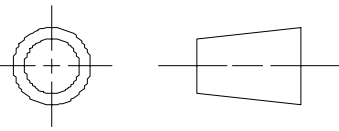
FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Drivetrain Housing		
SIZE	DRG NO.	SHEET REV
A	23c039017F	A

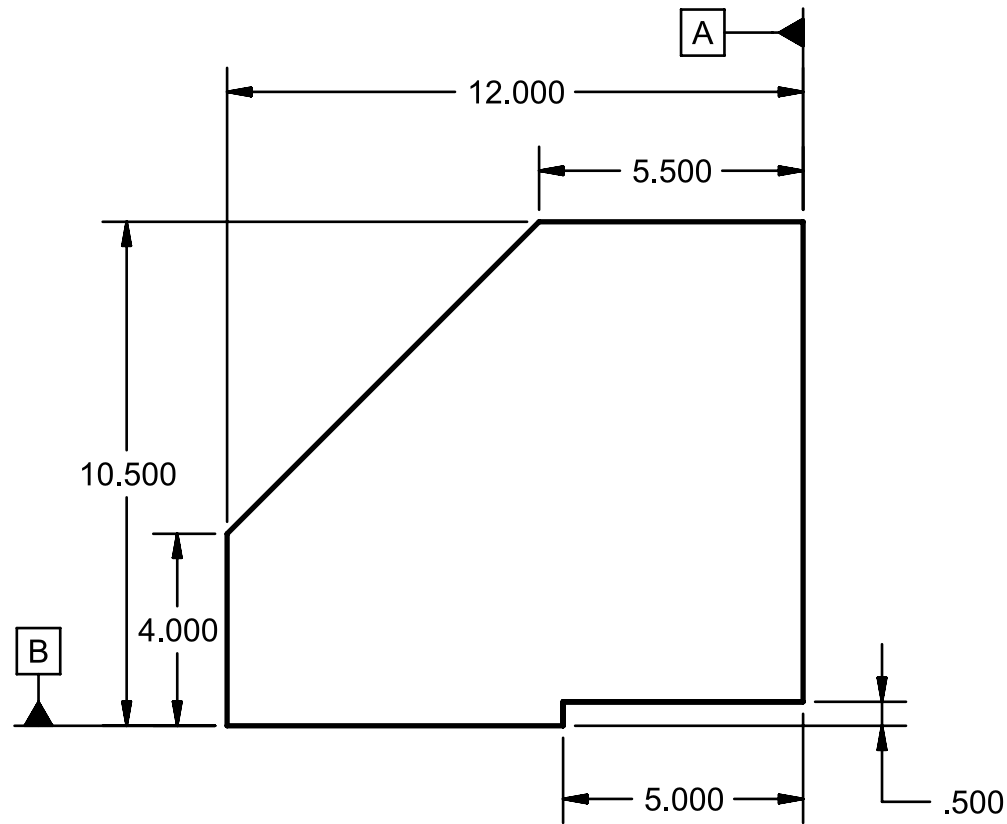
ALL DIMENSIONS IN INCHES

SCALE 1:1

SHEET 1 OF 6



1- Truss Support



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

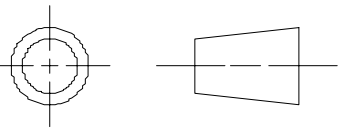
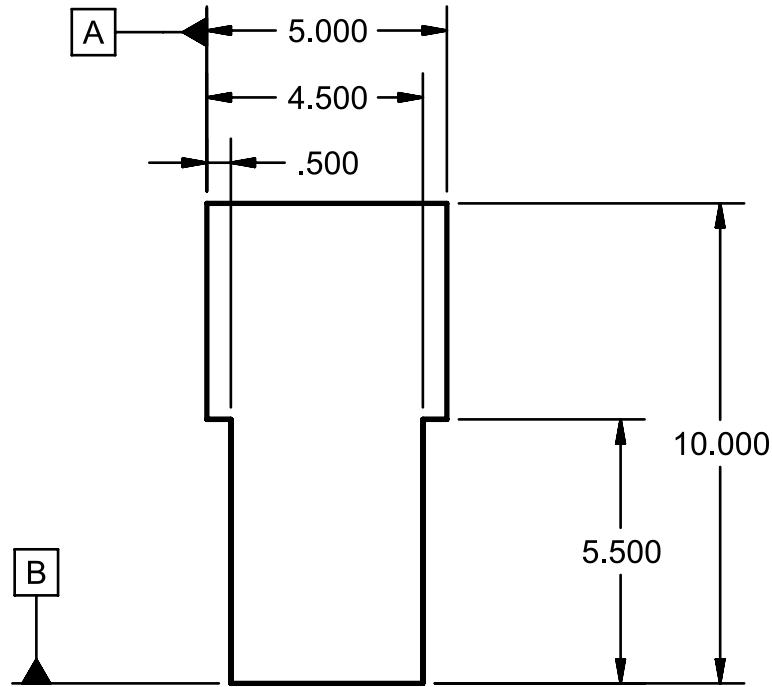


UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Drivetrain Housing		
SIZE	DRG NO.	SHEET REV
A	23c039017F	A
SCALE 1:1	SHEET 2 OF 6	

2- Drill Shaft Support



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
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ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

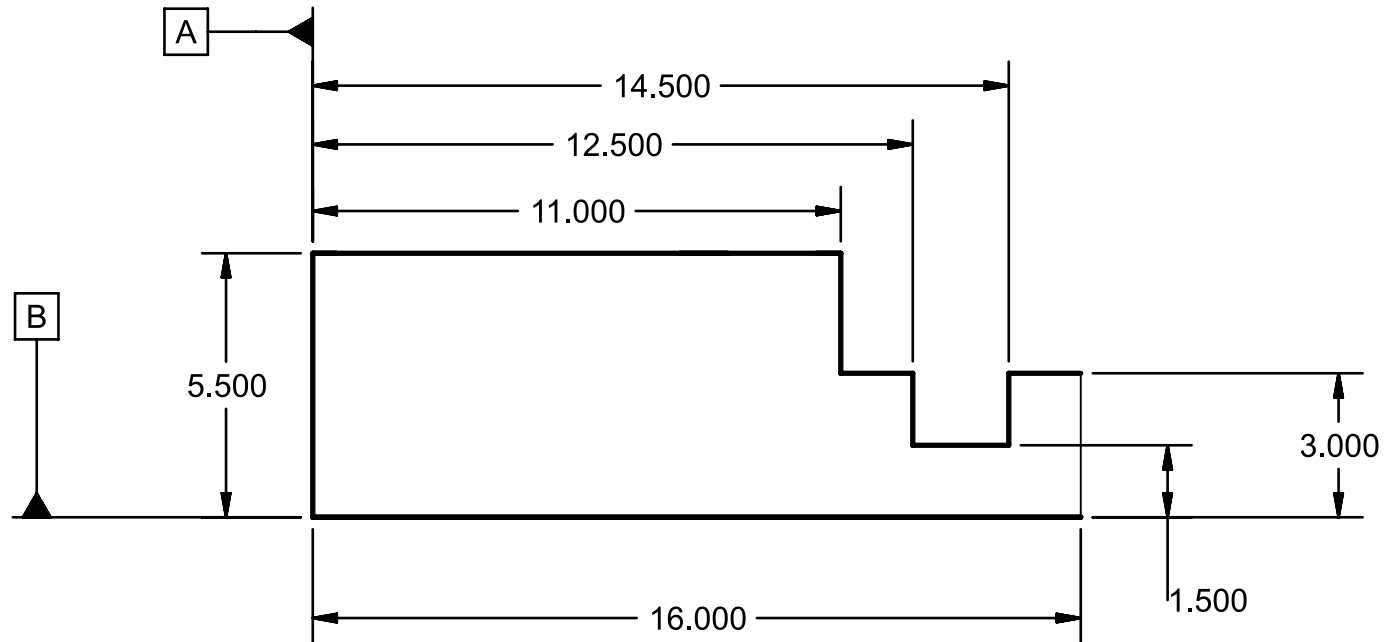
FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	wood
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Drivetrain Housing		
SIZE	DRG NO.	SHEET REV
A	23c039017F	A

SCALE 1:1

SHEET 3 OF 6

3- Drill Side Support



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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

FIRST ISSUED	4/26/23	TITLE			
DRAWN BY	skc	Drivetrain Housing			
MATERIAL	wood				
FINISH	n/a	SIZE	DRG NO.	SHEET REV	
REVIEWED BY	wcruz	A	23c039017F	A	
		SCALE 1:1			SHEET 4 OF 6

ALL DIMENSIONS IN INCHES

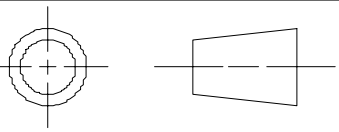


1

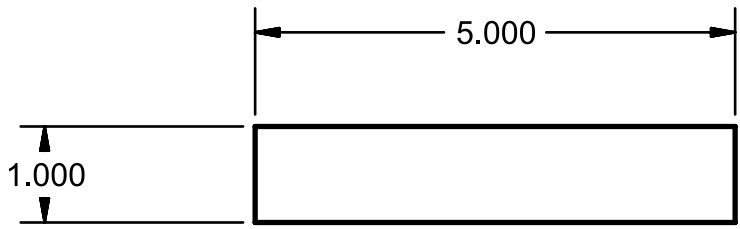
2

3

4



4- Accelerator Pivot



A

A

B

B

C

C

D

D

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
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UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE	
DRAWN BY		skc		Drivetrain Housing	
MATERIAL		wood			
FINISH		n/a		SIZE	DRG NO.
REVIEWED BY		wcruz		A	23c039017F
				SCALE 1:1	SHEET 5 OF 6
					SHEET REV
					A

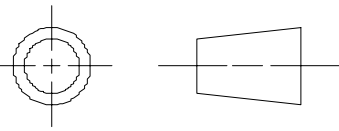
ALL DIMENSIONS IN INCHES

1

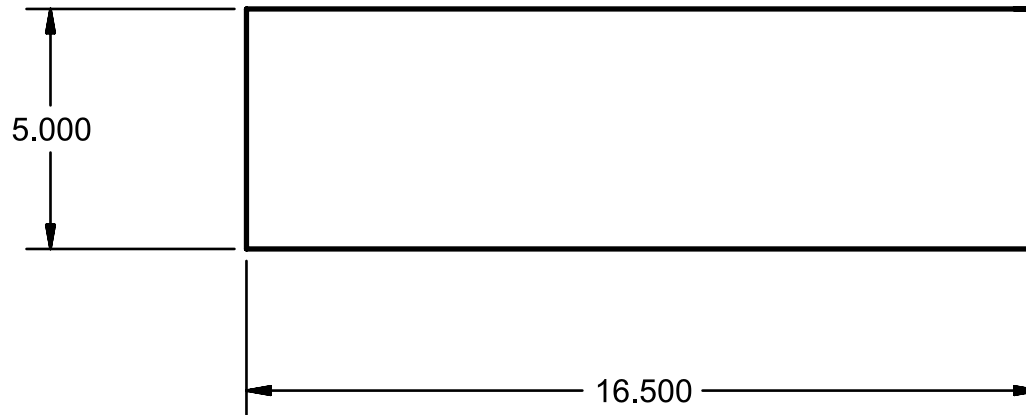
2

3

4



5- Bottom Piece



UNLESS OTHERWISE SPECIFIED

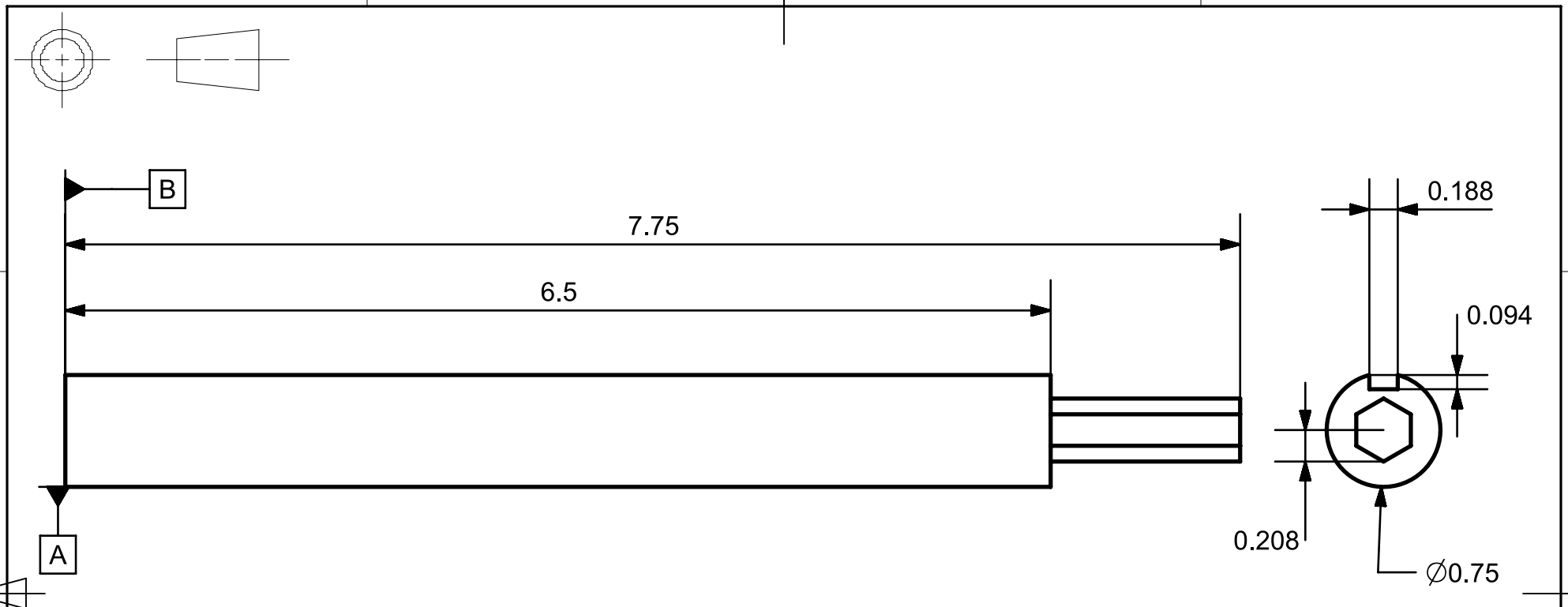
ANGLES ± 0.5°	X ± 0.025	X.X ± 0.020	X.XX ± 0.010	X.XXX ± 0.005	X.XXXX ± 0.0005
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ALL DIMENSIONS IN INCHES




UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE  Drivetrain Housing	
DRAWN BY		skc			
MATERIAL		wood			
FINISH		n/a			
REVIEWED BY		wcruz		SIZE	DRG NO.
				A	23c039017F
				SCALE 1:1	SHEET 6 OF 6
					SHEET REV A



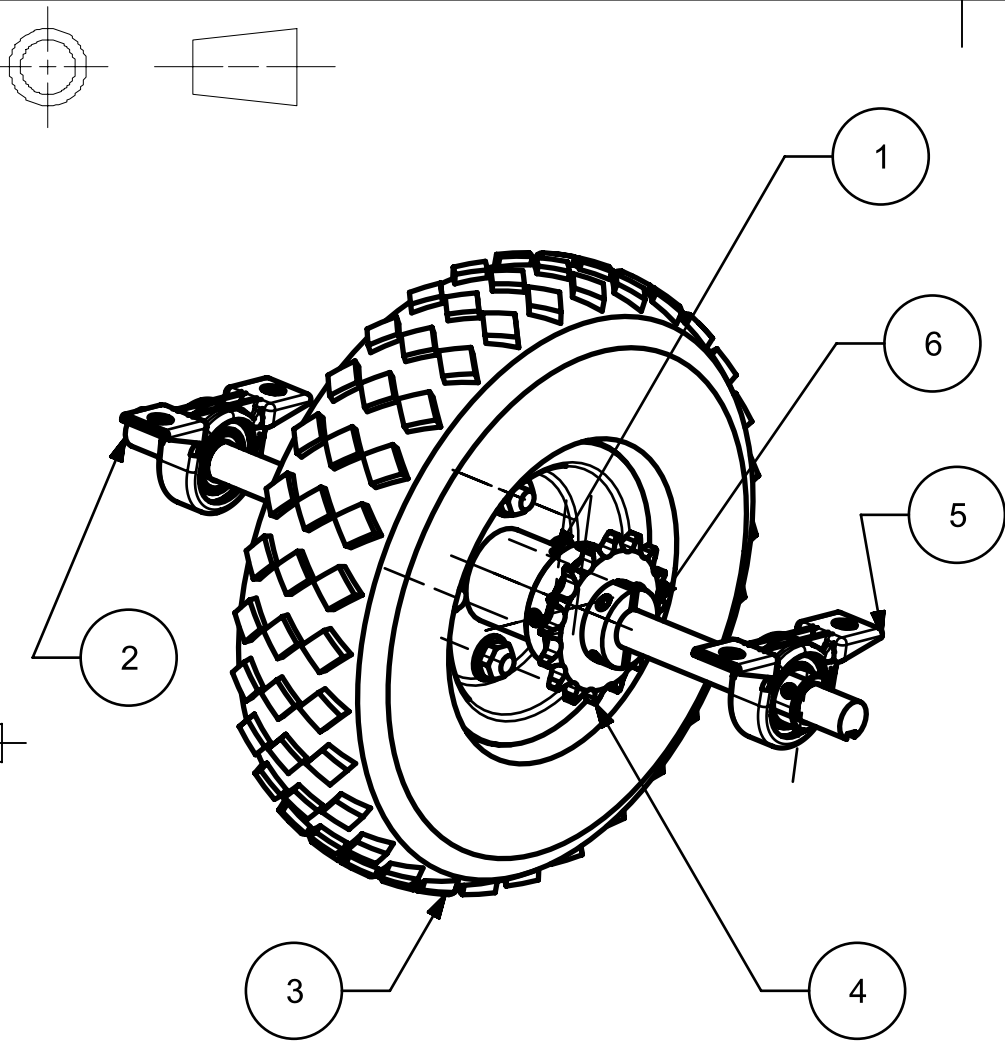
UNLESS OTHERWISE SPECIFIED

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

	
FIRST ISSUED	4/24/23
DRAWN BY	skc
MATERIAL	AL 6061
FINISH	n/a
REVIEWED BY	wcruz

UNIVERSITY OF ROCHESTER			
TITLE			
Drill Drive Shaft			
SIZE	DRG NO.	SHEET REV	
A	23c039012E	A	
SCALE 1:1		SHEET 1 OF 1	

ALL DIMENSIONS IN INCHES



6	SHAFT_COLLAR_REA R_WHEEL_5_8_INCH	1
5	MOUNTED_BEARING_ REAR	2
4	16_TOOTH_REAR_SP ROCKET	1
3	10_INCH_WHEEL_KER MIT	1
2	23C039005D	1
1	23C039006C	1
PC NO	PART NAME	QTY



UNIVERSITY OF ROCHESTER

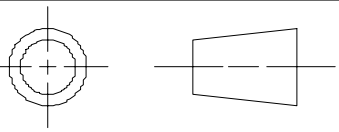
FIRST ISSUED	4/26/23
DRAWN BY	skc
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Rear Drive Shaft		
SIZE	DRG NO.	SHEET REV
A	23c039007G	A

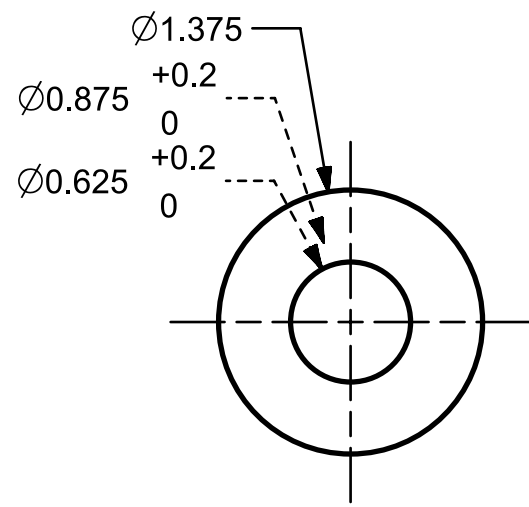
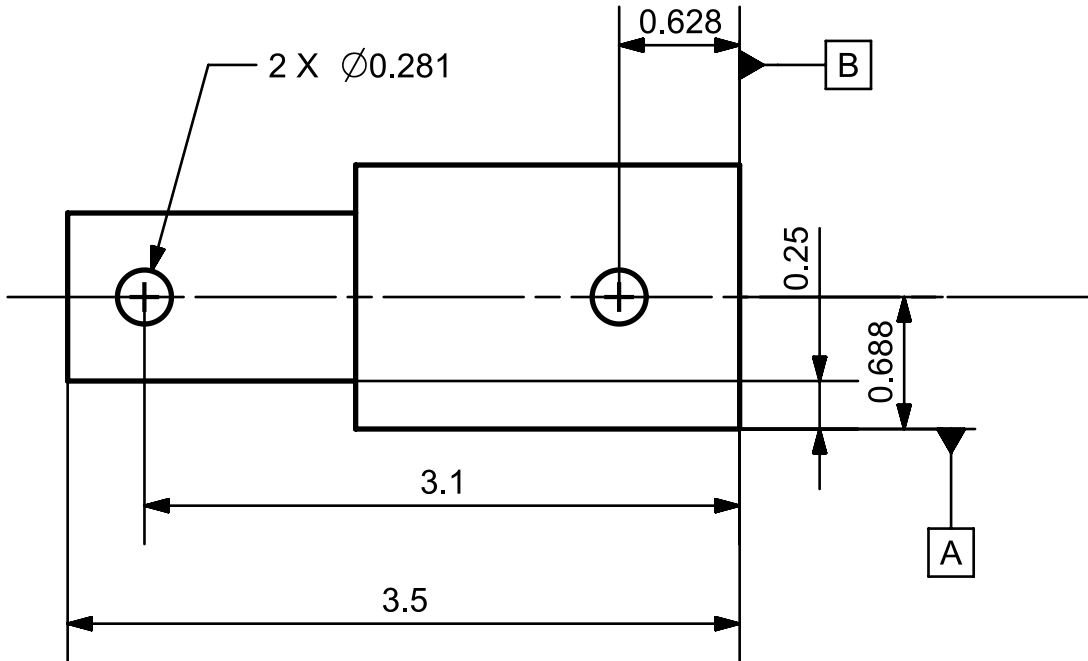
ALL DIMENSIONS IN INCHES

SCALE 1:1

SHEET 1 OF 1



⊕ 0.5 (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

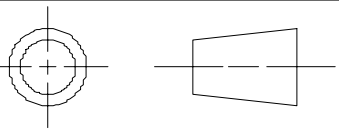


UNIVERSITY OF ROCHESTER

FIRST ISSUED		04/24/23		TITLE		
DRAWN BY		K C				
MATERIAL		AL 6061				
FINISH		NONE				
REVIEWED BY		wcruz		SIZE	DRG NO.	SHEET REV
				A	23c039006C	
				SCALE 1:1	SHEET 1 OF 1	

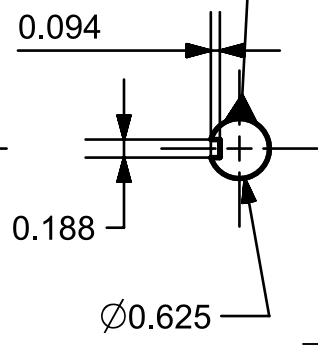
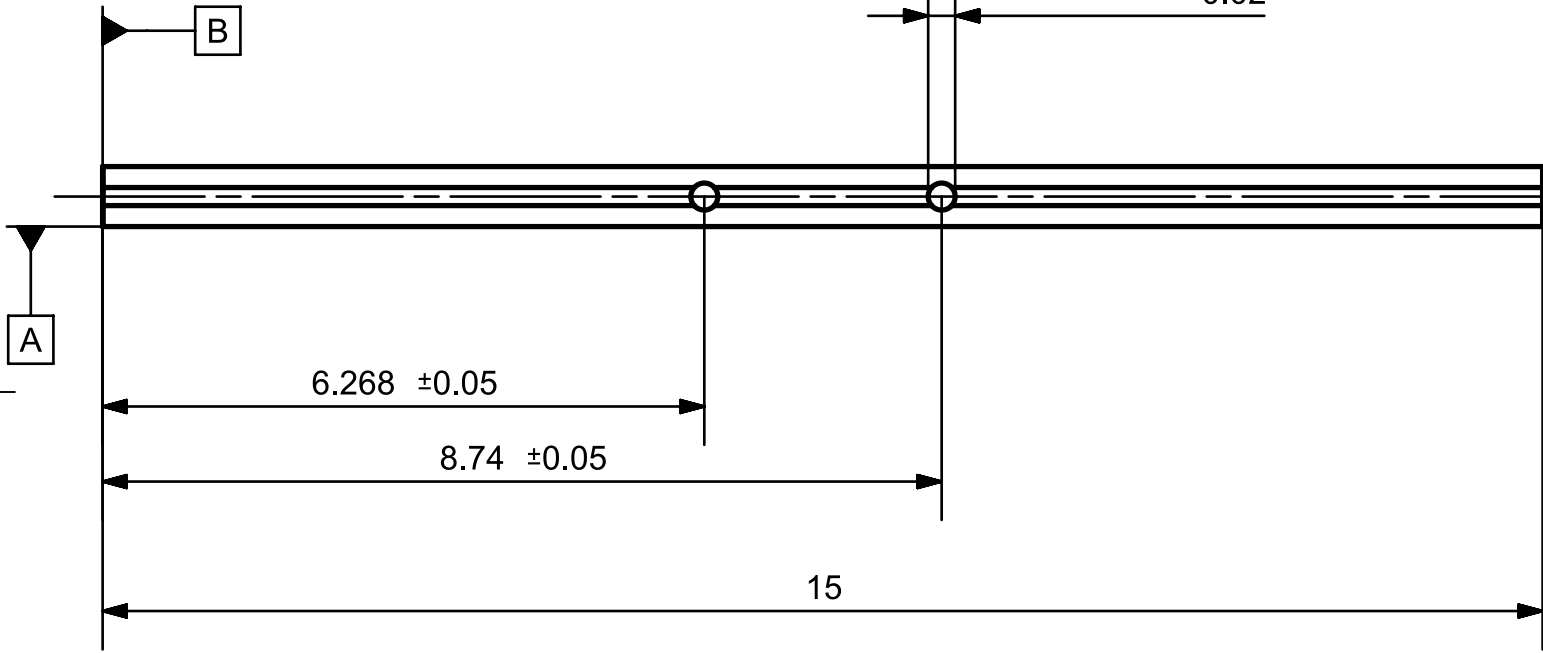
Wheel Shaft Adapter

ALL DIMENSIONS IN INCHES



⊕ 0.5 (M) A B C

2 X Ø0.281 <sup>0</sup>/<sub>-0.02</sub>

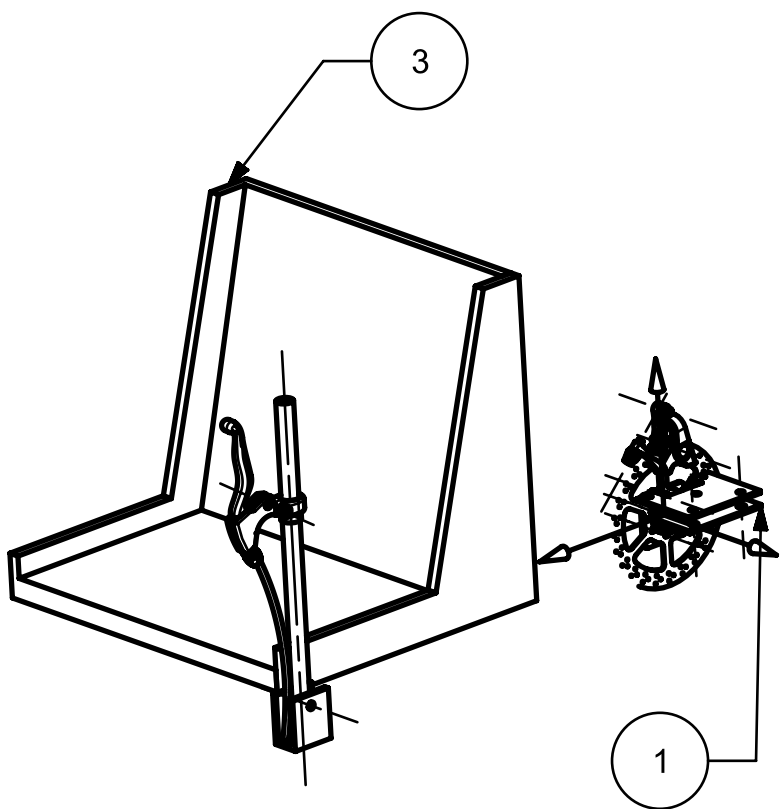
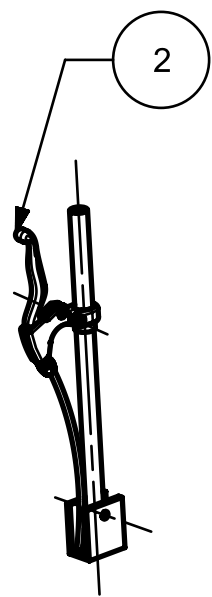
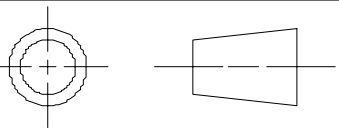


UNLESS OTHERWISE SPECIFIED

ANGLES ± 0.5°	X ± 0.025	X.X ± 0.020	X.XX ± 0.010	X.XXX ± 0.005	X.XXXX ± 0.0005
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		UNIVERSITY OF ROCHESTER		
FIRST ISSUED	4/24/23	TITLE		
DRAWN BY	skc	REAR SHAFT 1		
MATERIAL	1045 Carbon Steel			
FINISH	NONE	SIZE	DRG NO.	SHEET REV
REVIEWED BY	wcruz	A	23c039005D	A
		SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN INCHES



4	23C062008B	1
3	23C062009E	1
2	23C062011I	2
1	23C062012K	1
PC NO	PART NAME	QTY



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	bvaleri2
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Usability Assembly		
SIZE	DRG NO.	SHEET REV
A	23c062000N	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN INCHES

A

B

C

D

A

B

C

D

1

2

3

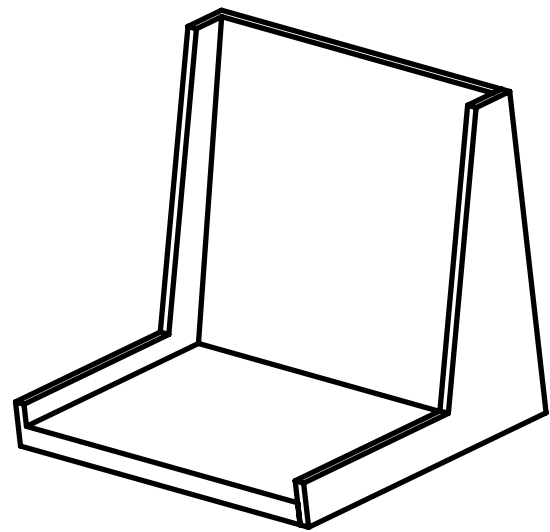
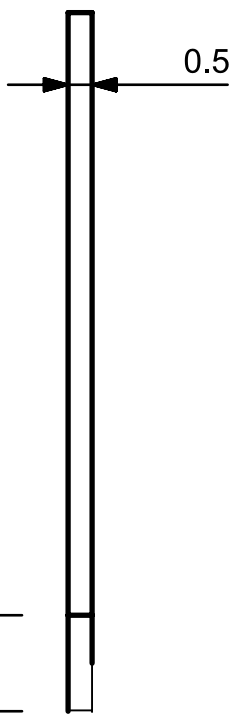
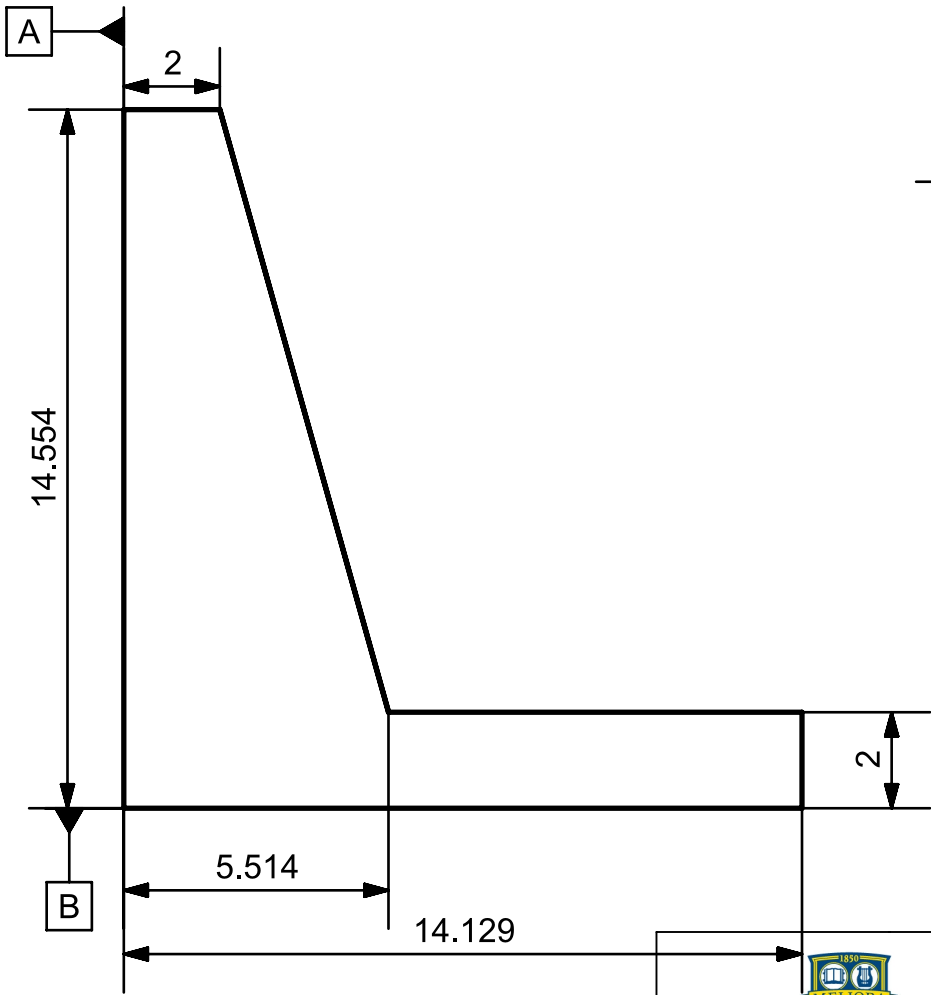
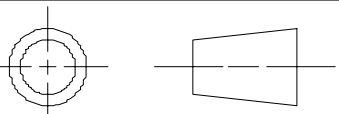
4

1

2

3

4



UNLESS OTHERWISE SPECIFIED

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

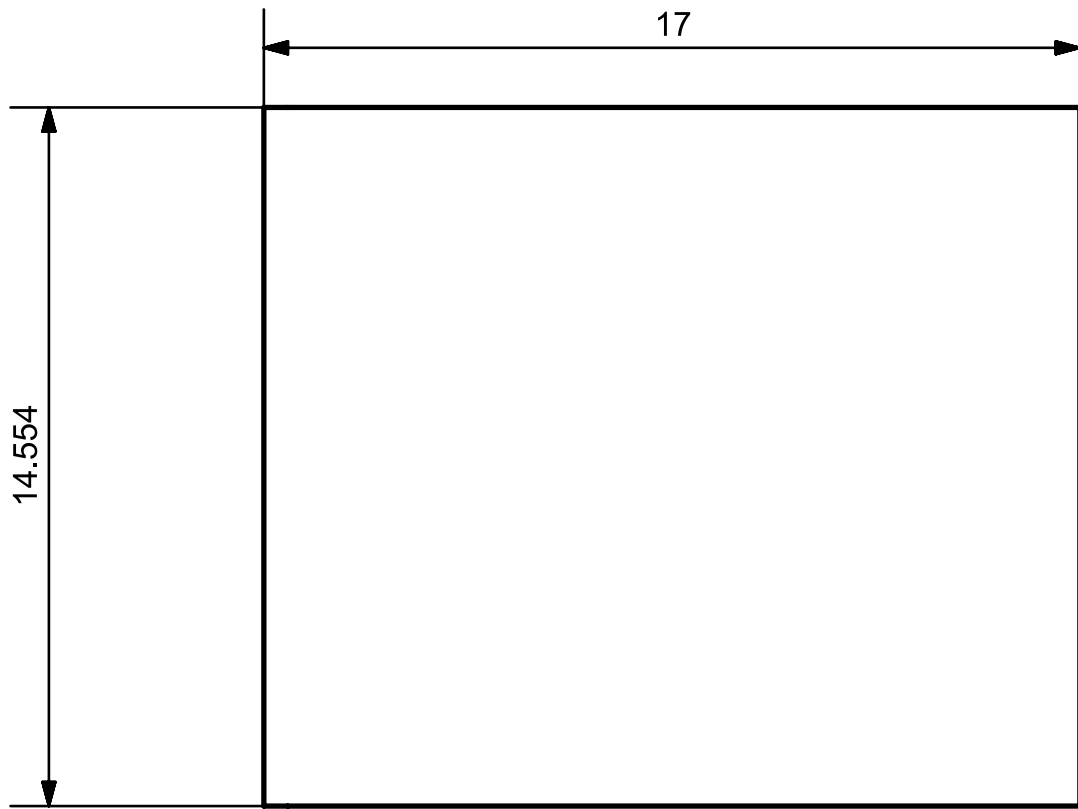
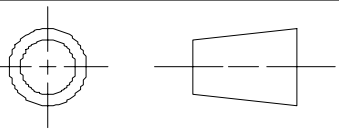


UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE	
DRAWN BY		bvaleri2		Seat	
MATERIAL		wood			
FINISH		laser engraved		SIZE	DRG NO.
REVIEWED BY		wcruz		A	23c062009E
		SCALE 1:1		SHEET REV	
				A	
				SHEET 1 OF 2	

ALL DIMENSIONS IN INCHES





14.554

17

UNLESS OTHERWISE SPECIFIED

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

ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED		4/26/23		TITLE	
DRAWN BY		bvaleri2		Seat	
MATERIAL		wood			
FINISH		laser engraved		SIZE	DRG NO.
REVIEWED BY		wcruz		A	23c062009E
				SCALE 1:1	SHEET 2 OF 2
					SHEET REV
					A

A

B

C

D

A

B

C

D

1

2

3

4

1

2

3

4

1

2

3

4

A

A

B

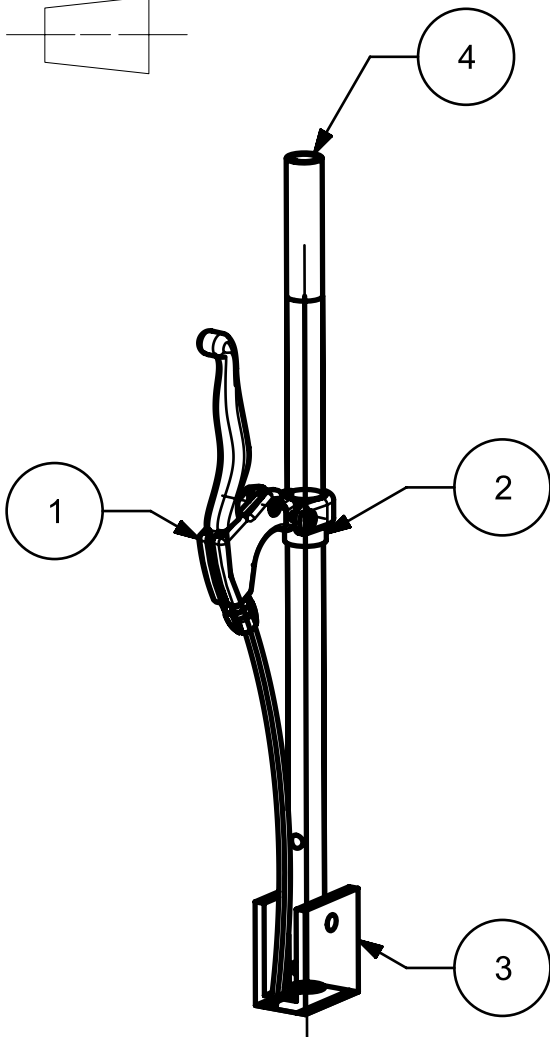
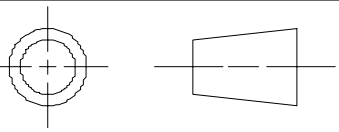
B

C

C

D

D



4	23C062023A	1
3	23C062022C	1
2	23C062006F	1
1	BRAKE_HANDLE	1
PC NO	PART NAME	QTY



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	bvaleri2
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Steering Handle		
SIZE	DRG NO.	SHEET REV
A	23c062011i	A

ALL DIMENSIONS IN INCHES

SCALE 1:1

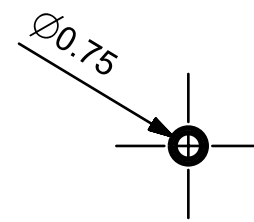
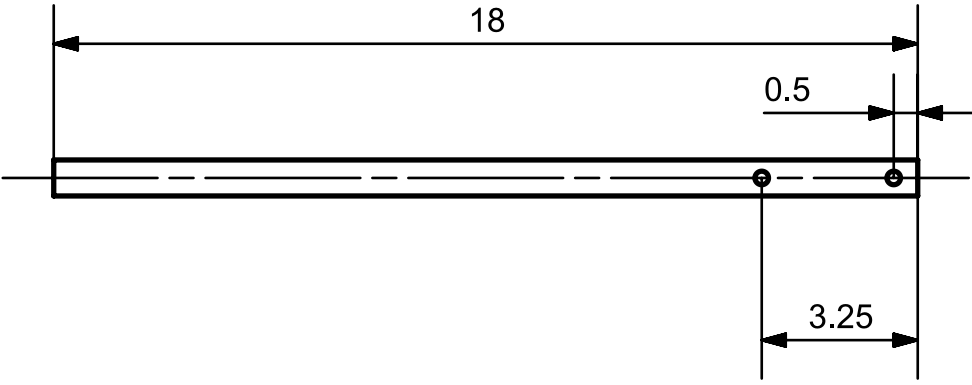
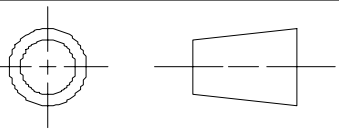
SHEET 1 OF 1

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

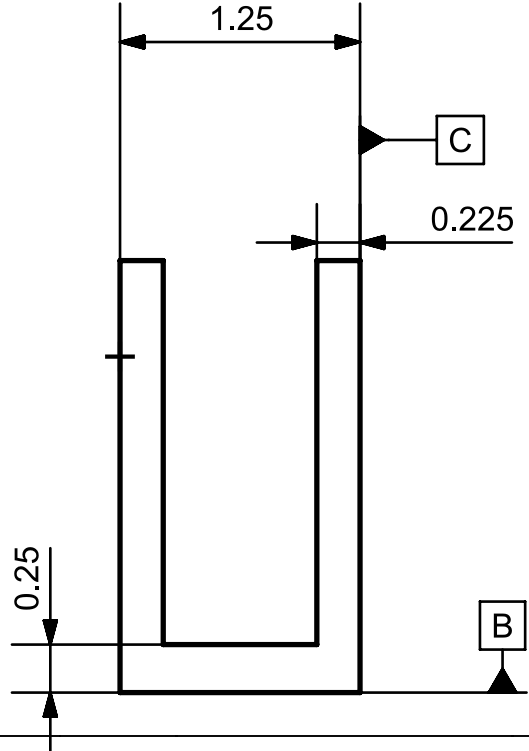
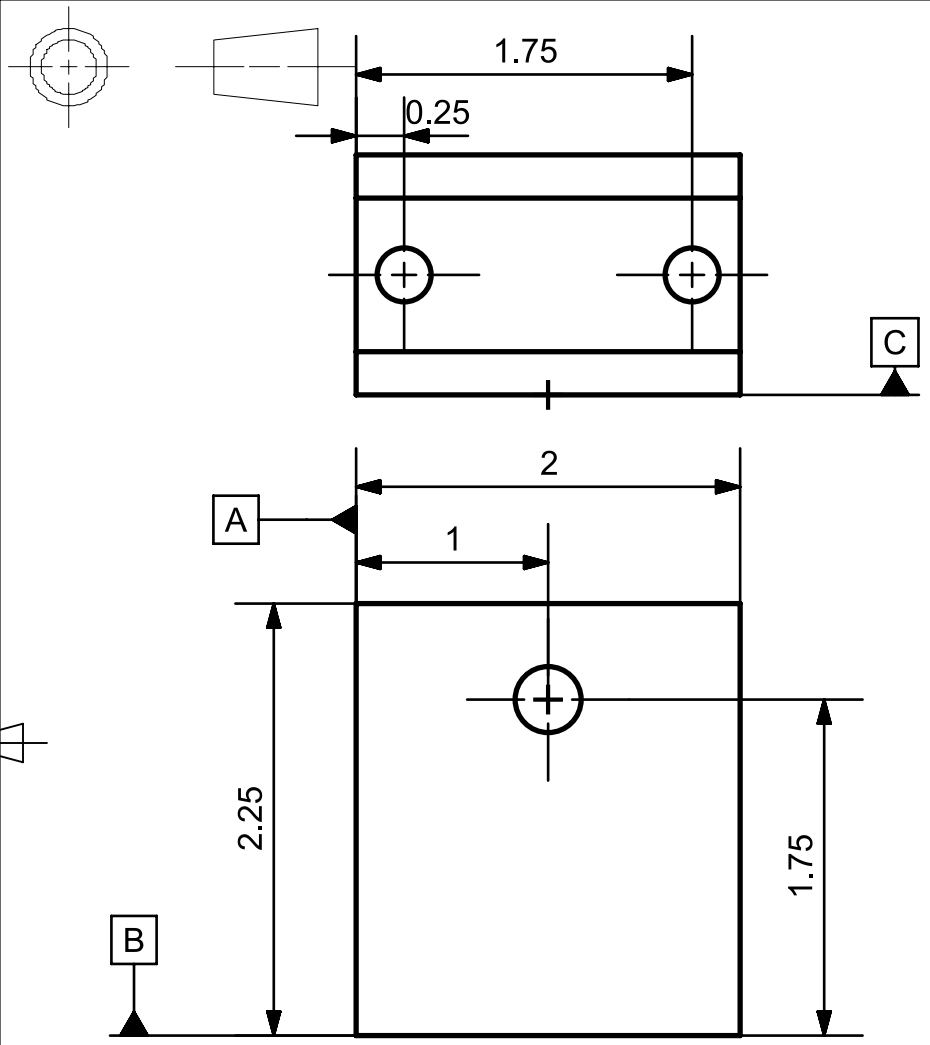
ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	bvaleri2
MATERIAL	al6061
FINISH	n/a
REVIEWED BY	wcruz

TITLE		Handle bar stock		SHEET REV A
SIZE A	DRG NO. 23c062023A			
SCALE 1:1		SHEET 1 OF 1		



UNIVERSITY OF ROCHESTER

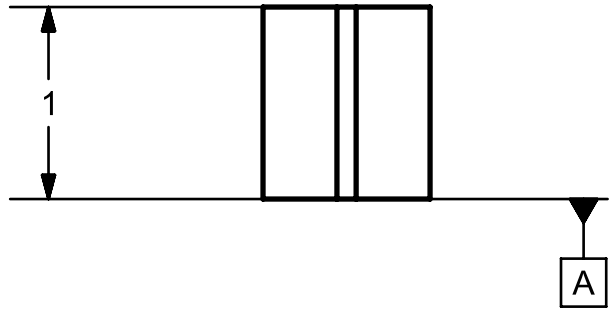
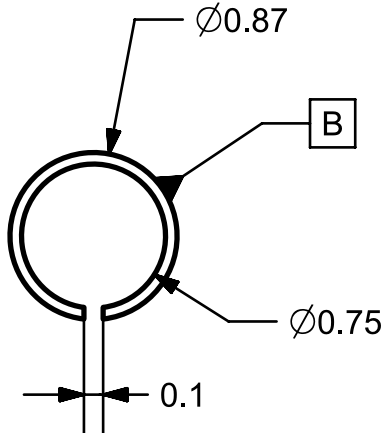
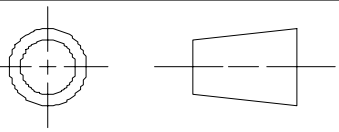
UNLESS OTHERWISE SPECIFIED

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

FIRST ISSUED	4/24/23
DRAWN BY	Valerio
MATERIAL	AL 6061
FINISH	
REVIEWED BY	

TITLE		Pivot Joint		SHEET REV	
A				A	
SIZE	DRG NO.	23c062022C		SHEET 1 OF 1	
SCALE 1:1					

ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

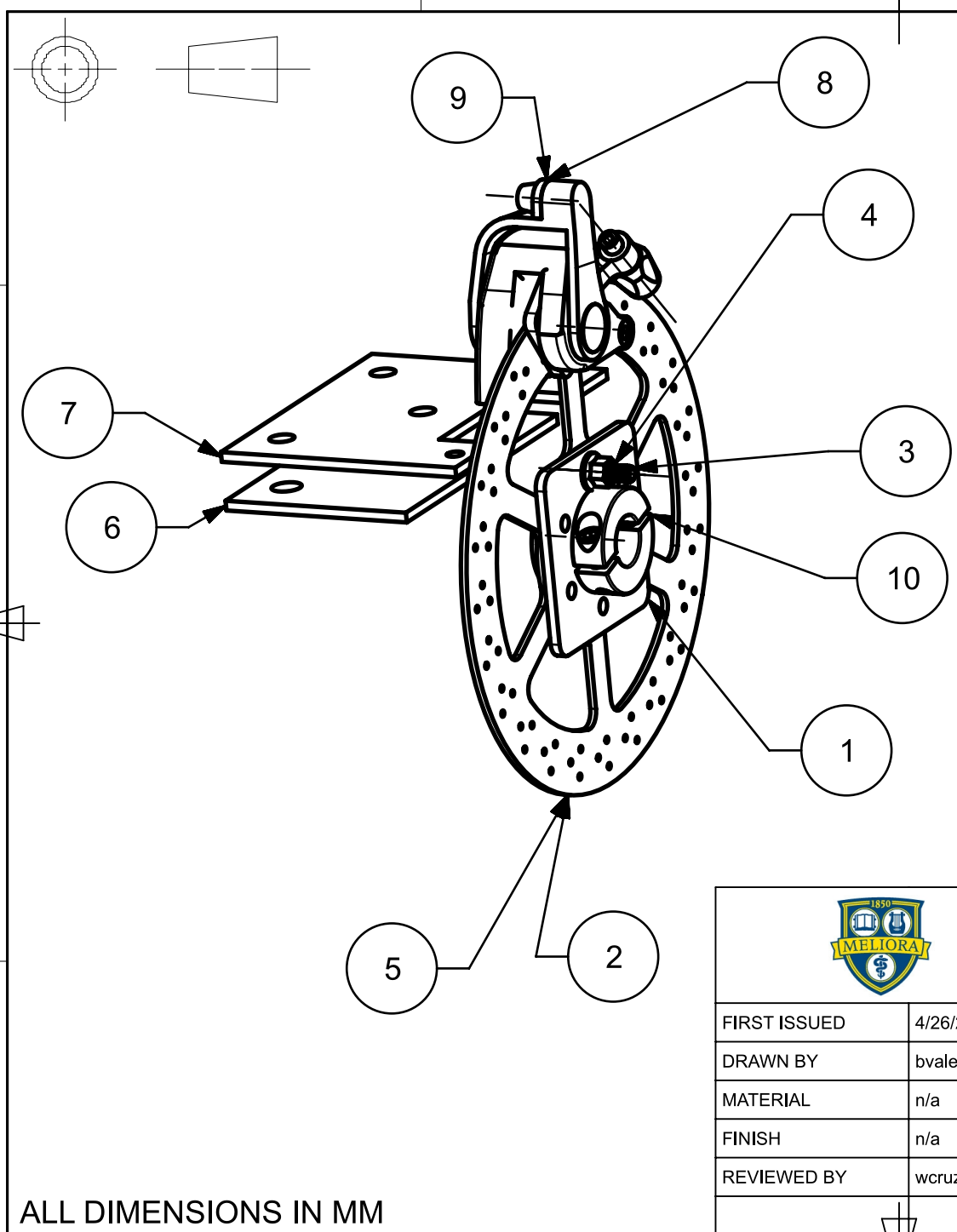
UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX	X.XXXX
$\pm 0.5^\circ$	$\pm 0.025$	$\pm 0.020$	$\pm 0.010$	$\pm 0.005$	$\pm 0.0005$

FIRST ISSUED	3/2/2023
DRAWN BY	Valerio
MATERIAL	ABS
FINISH	
REVIEWED BY	

TITLE		
Handle Adapter		
SIZE	DRG NO.	SHEET REV
A	23c062006F	A
SCALE 1:1		SHEET 1 OF 1

ALL DIMENSIONS IN INCHES



10	SHAFT_COLLAR_REAR_W HEEL_5_8_INCH	2
9	23C062018E	1
8	TRP SPYRE_STP01	1
7	23C062017E	1
6	23C062016G	1
5	23C062021B	1
4	92461A200_LOCKNUT	( 6 )
3	90327A128_ALLOY STEEL LOW-PROFILE SOCKET HEAD SCREWS_SLDPRT	( 6 )
2	160MMDISCBRAKEB	1
1	23C062010F	1
PC NO	PART NAME	QTY



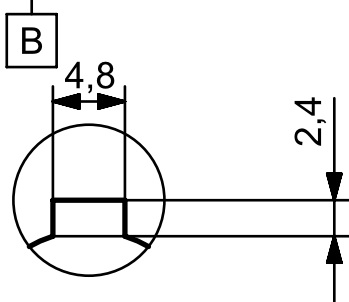
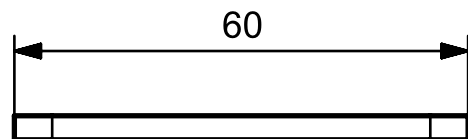
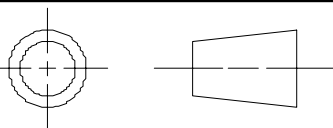
UNIVERSITY OF ROCHESTER

FIRST ISSUED	4/26/23
DRAWN BY	bvaleri2
MATERIAL	n/a
FINISH	n/a
REVIEWED BY	wcruz

TITLE		
Rear Brake Assembly		
SIZE	DRG NO.	SHEET REV
A4	23c062012K	A

ALL DIMENSIONS IN MM

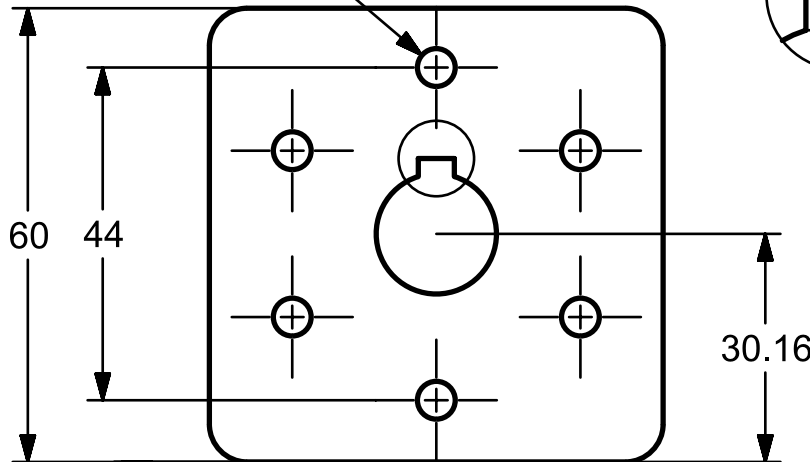
SCALE 1:1 SHEET 1 OF 1



DETAIL A  
SCALE 2:1

6 X M5 -  $\varnothing$  5 Custom THRU

$\varnothing$	$\varnothing$ 0.05(M)	A	B	C
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UNLESS OTHERWISE SPECIFIED

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

ALL DIMENSIONS IN MM

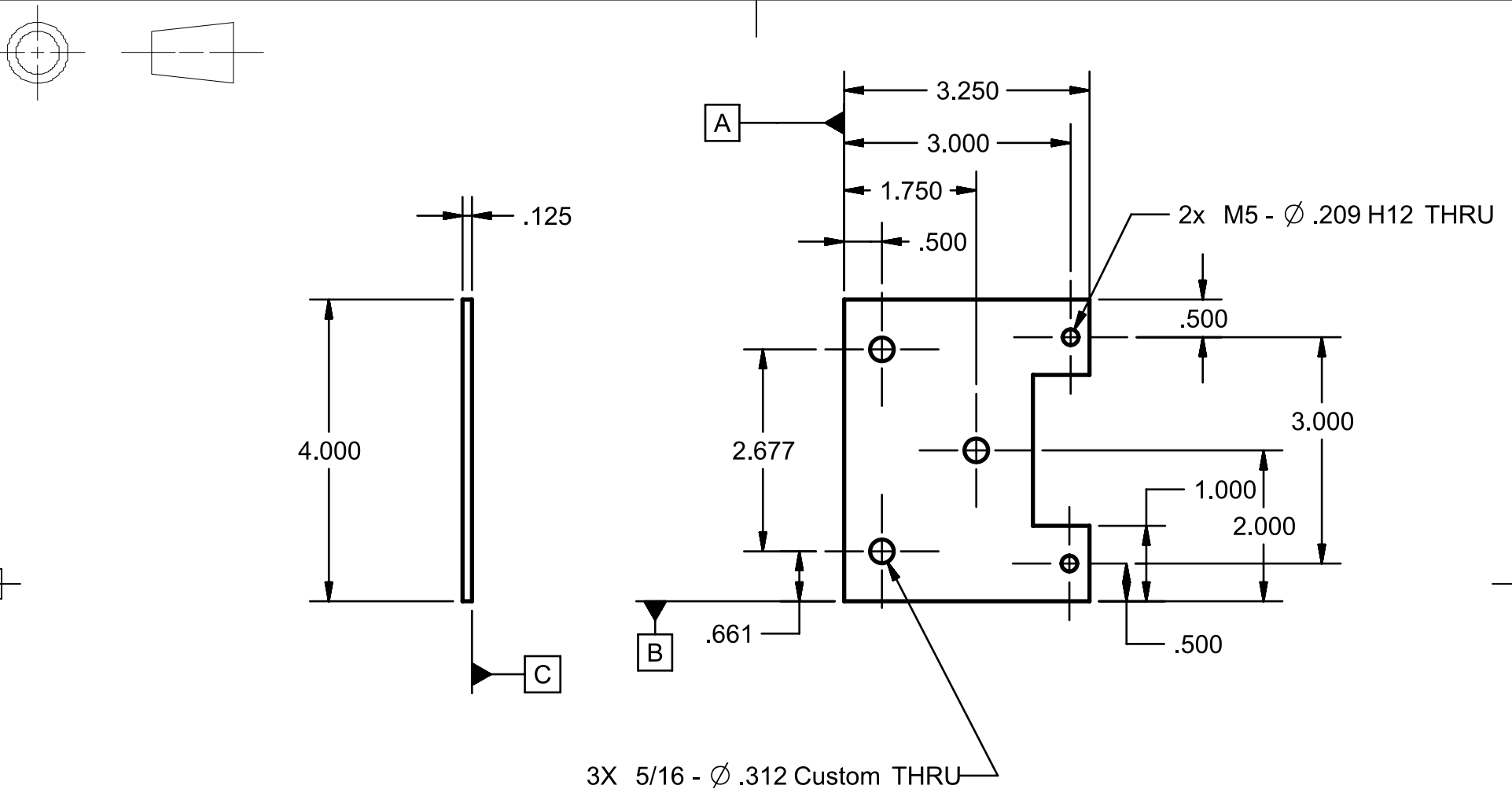


UNIVERSITY OF ROCHESTER

FIRST ISSUED	3/2/2023
DRAWN BY	Valerio
MATERIAL	AL 6061
FINISH	None
REVIEWED BY	

TITLE		
Rotor-Shaft Adapter		
SIZE	DRG NO.	SHEET REV
A4	23c062010F	A

SCALE 1:1 SHEET 1 OF 1



3X 5/16 -  $\varnothing$  .312 Custom THRU

2x M5 -  $\varnothing$  .209 H12 THRU



UNIVERSITY OF ROCHESTER

UNLESS OTHERWISE SPECIFIED

ANGLES	X	X.X	X.XX	X.XXX	X.XXXX
$\pm 0.5^\circ$	$\pm 0.025$	$\pm 0.020$	$\pm 0.010$	$\pm 0.005$	$\pm 0.0005$

FIRST ISSUED	3/31/2023
DRAWN BY	Valerio
MATERIAL	AL 6061
FINISH	
REVIEWED BY	

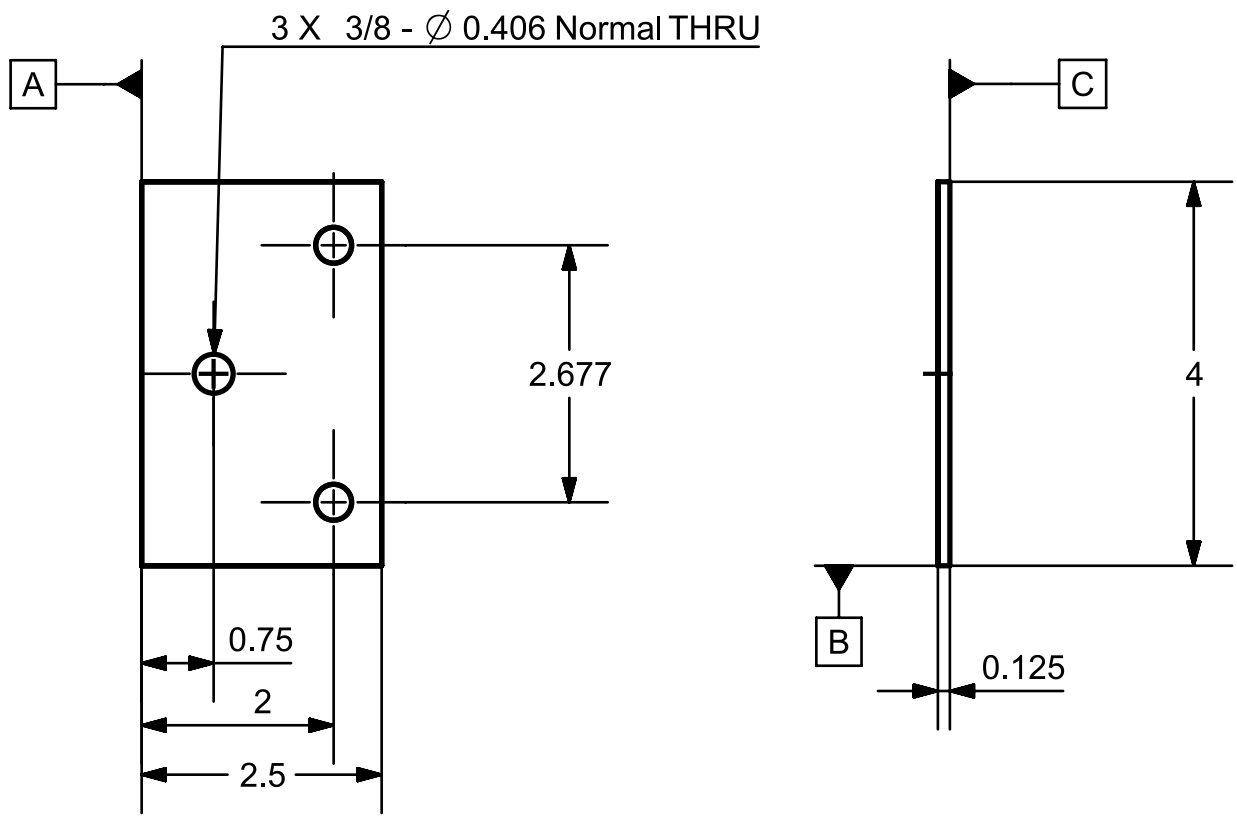
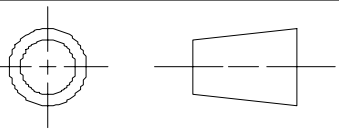
TITLE		
Top Caliper Mount		
SIZE	DRG NO.	SHEET REV
A	23c062017E	A

ALL DIMENSIONS IN INCHES

SCALE 1:1

SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED

ANGLES $\pm 0.5^\circ$	X $\pm 0.025$	X.X $\pm 0.020$	X.XX $\pm 0.010$	X.XXX $\pm 0.005$	X.XXXX $\pm 0.0005$
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ALL DIMENSIONS IN INCHES



UNIVERSITY OF ROCHESTER

FIRST ISSUED	3/31/2023
DRAWN BY	Valerio
MATERIAL	AL 6061
FINISH	
REVIEWED BY	

TITLE		
Bottom Caliper Mount		
SIZE	DRG NO.	SHEET REV
A	23c062016G	A
SCALE 1:2	SHEET 1 OF 1	