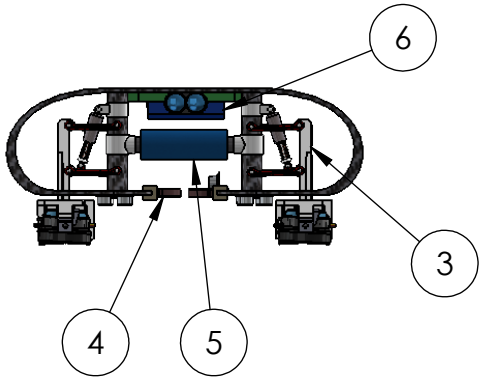
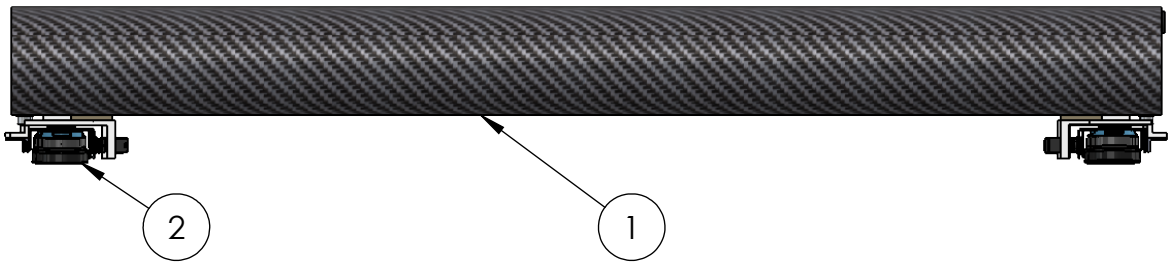




ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	S18-004	Structure Assembly	1
2	M18-004	Maglev Assembly	4
3	V18-004	Vertical Suspension Assembly	4
4	L18-004	Lateral Suspension Assembly	4
5	B18-004	Brake Assembly	2
6	E18-004	Power Electronics, Sensors and PCBs	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.005

INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5

MATERIAL

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	Nate R	3/7/18

COMMENTS:

UCSB HYPERLOOP

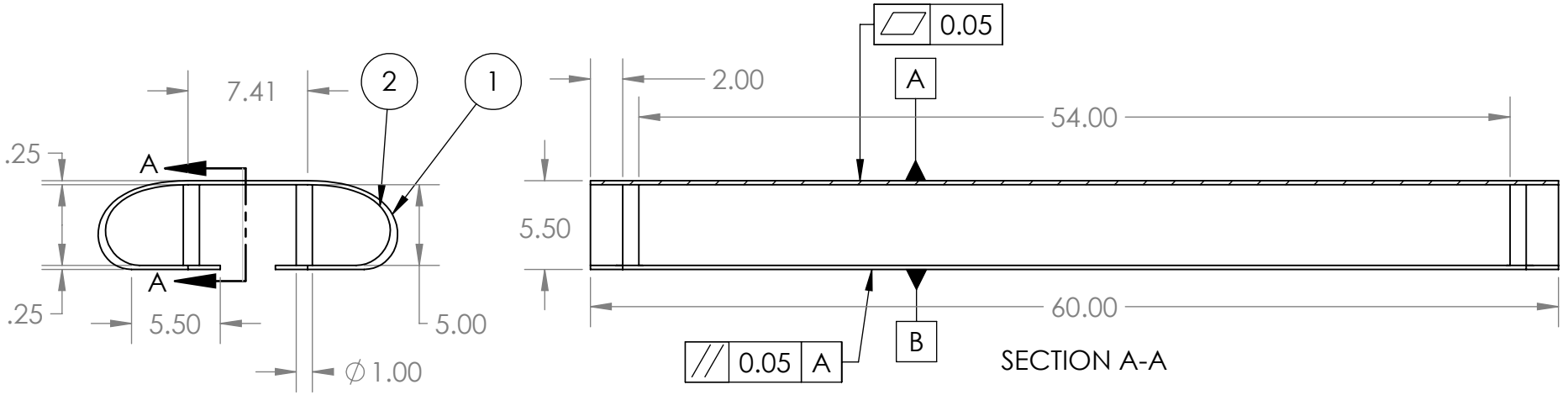
TITLE:

UCSB Hyperloop III Pod

SIZE	DWG. NO.	REV
A	P18-004	A

SCALE: 1:10 | WEIGHT: | SHEET 1 OF 1

NOTES:
1. OUTER RADIUS: R 2.75 ± 0.01
2. INNER RADIUS: R 2.05 ± 0.01



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	E.Pereyra	3/5/18
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS:		
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

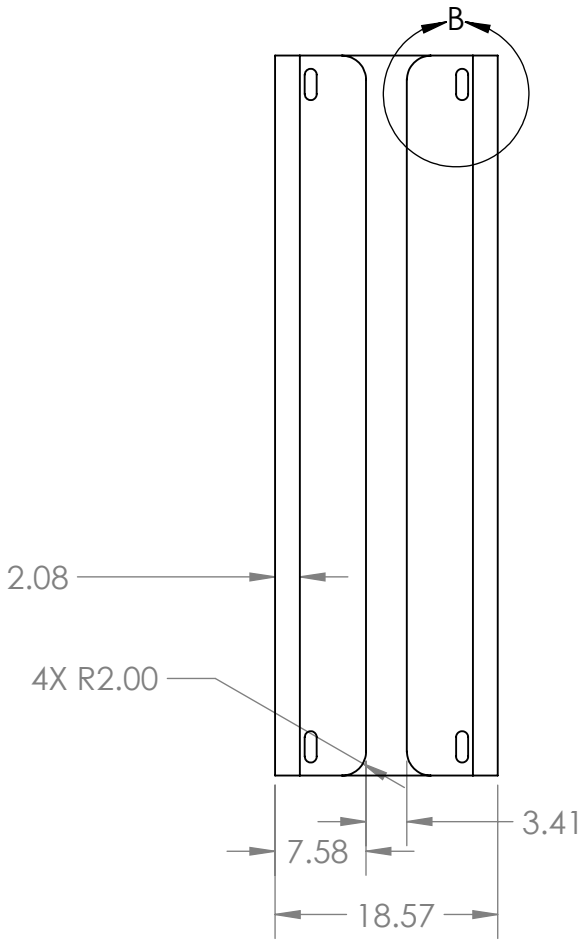
ucsb gaucholoop

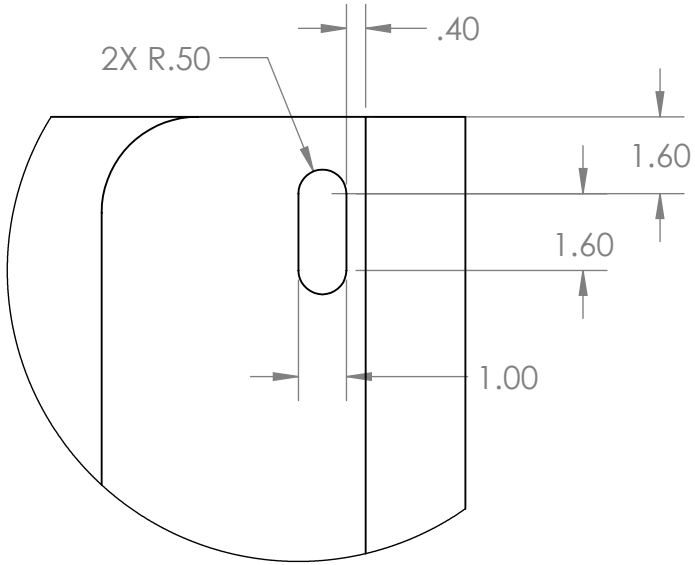
UCSB HYPERLOOP

TITLE:

Frame

SIZE	DWG. NO.	REV
A	S18-004-001	A00
SCALE: 1:10	WEIGHT:	SHEET 1 OF 2





DETAIL B
SCALE 1 : 4

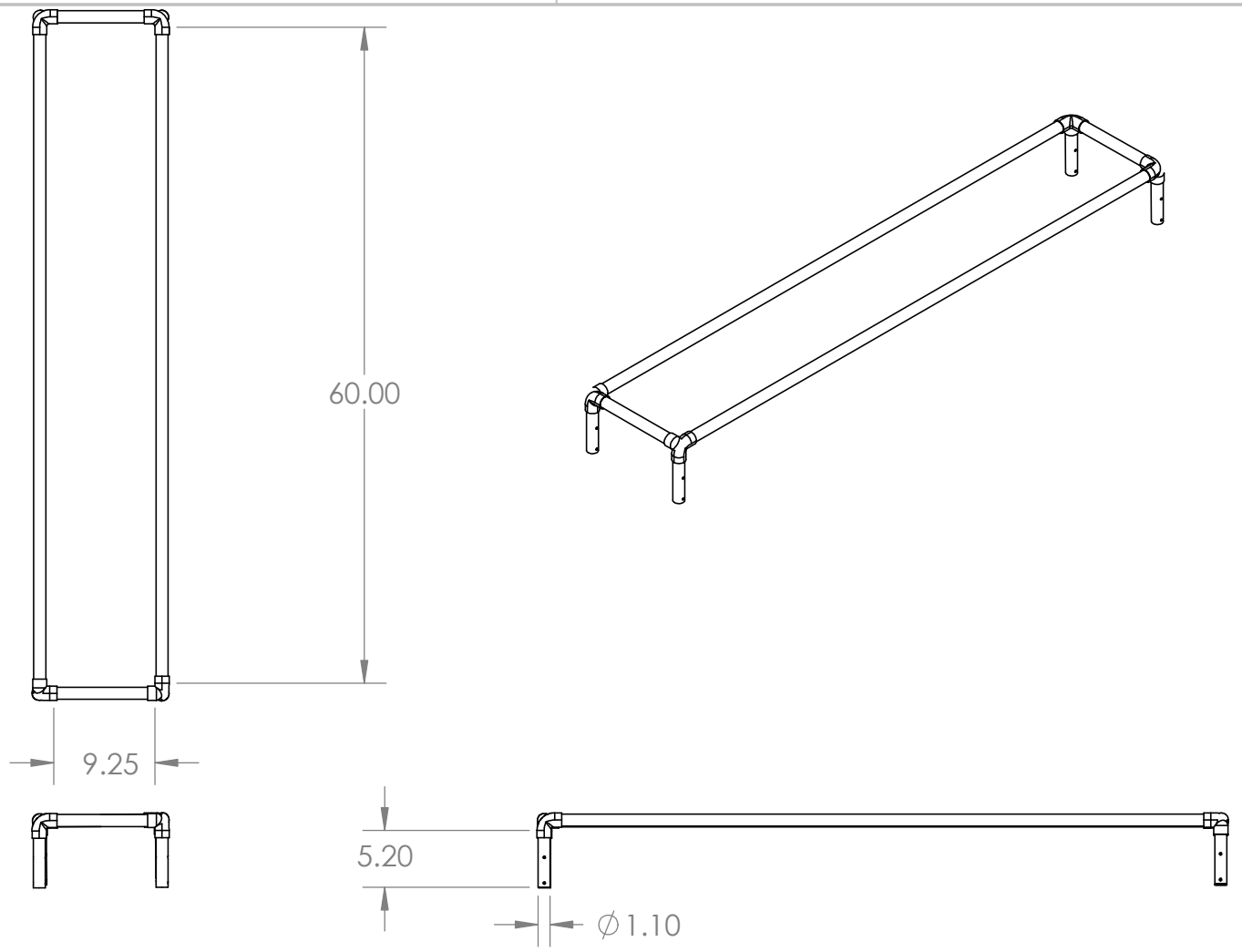
UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	E.Pereyra	3/5/18
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS:		
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

UCSB HYPERLOOP

TITLE:

Frame

SIZE	DWG. NO.	REV
A	S18-004-001	A00
SCALE: 1:10	WEIGHT:	SHEET 2 OF 2



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS: The connectors are the 3/4 inch. 3 way pvc connectors. Bore the inner diameter to match the outer diameter of the carbon fiber (Roughly 50 thousandth of an inch)		
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

UCSB HYPERLOOP

TITLE:

Full-Scale Prototype Frame

SIZE	DWG. NO.	REV
A	S18-004-001	A00
SCALE: 1:16	WEIGHT:	SHEET 1 OF 1

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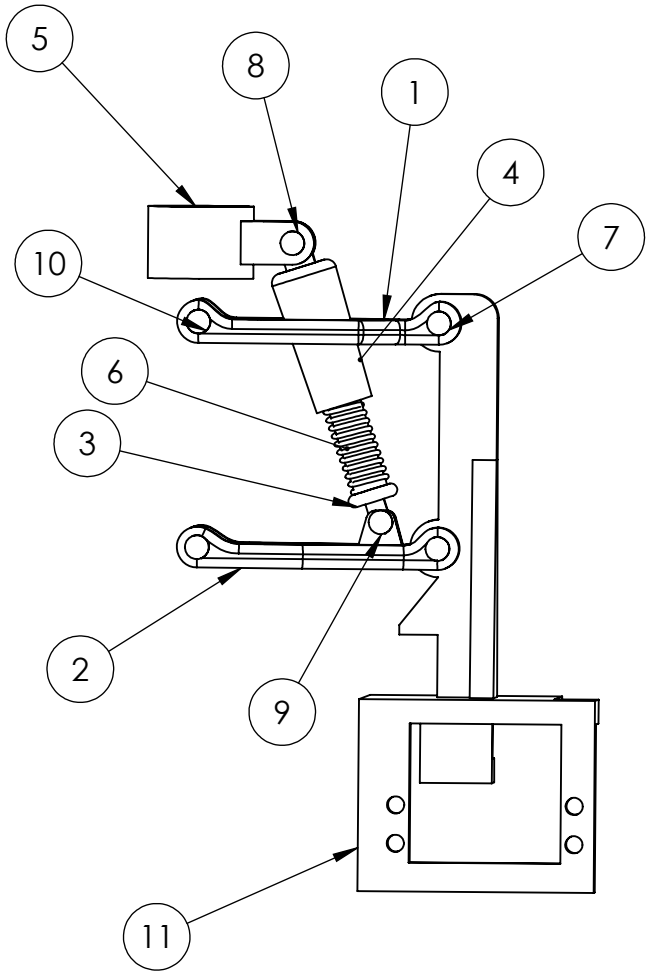


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	V18-004-001	WISHBONE	1
2	V18-004-001	WISHBONE	1
3	V18-004-002	AIR PISTON	1
4	V18-004-003	AIR CYLINDER	1
5	V18-004-004	CLAMP	1
6	9655K313	MCMASTER.COM	1
7	97395A618	MCMASTER.COM	2
8	97395A472	MCMASTER.COM	1
9	97395A433	MCMASTER.COM	1
10	97395A620	MCMASTER.COM	2
11	V18-004-005	SUSPENSION BASE	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.005

INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5

MATERIAL

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	W. CARIAS	

COMMENTS:

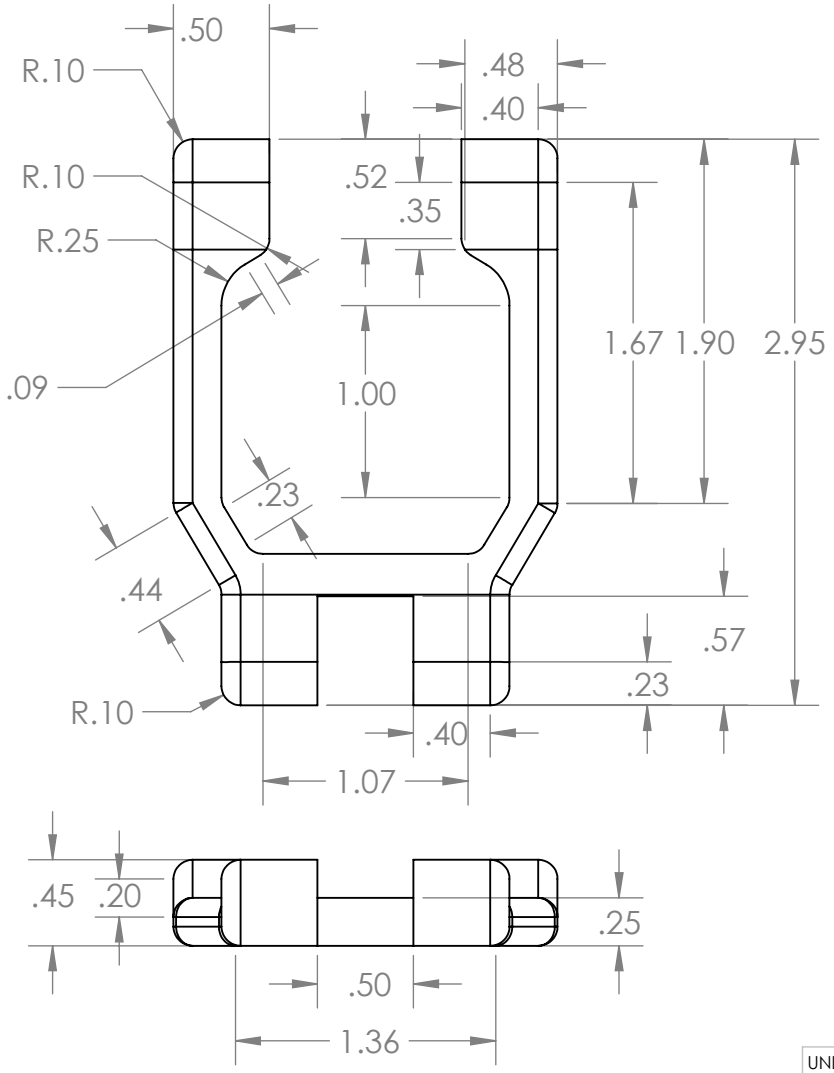
UCSB HYPERLOOP

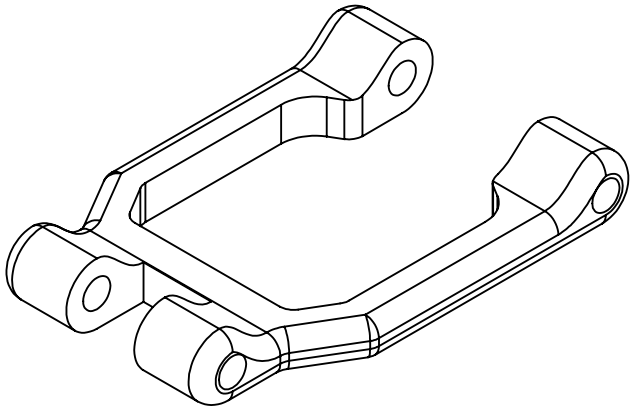
TITLE:

SUBASSEMBLY

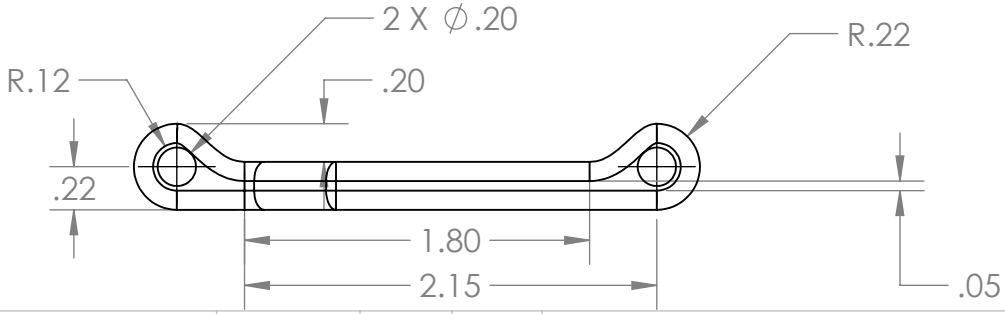
SIZE	DWG. NO.	REV
A	V18-004-001	A

SCALE: 1:4 | WEIGHT: | SHEET 1 OF 1





NOTES:
1.ORDER 3D PRINTED PARTS FROM XOMETRY
2. SHAVE OFF THE SUPPORT MATERIAL
3. SANF OFF PART



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	W. CARIAS	
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS:		
MATERIAL NYLON			
FINISH			
DO NOT SCALE DRAWING			

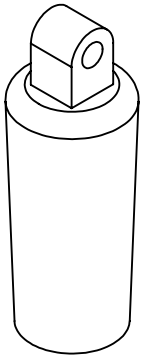
UCSB HYPERLOOP

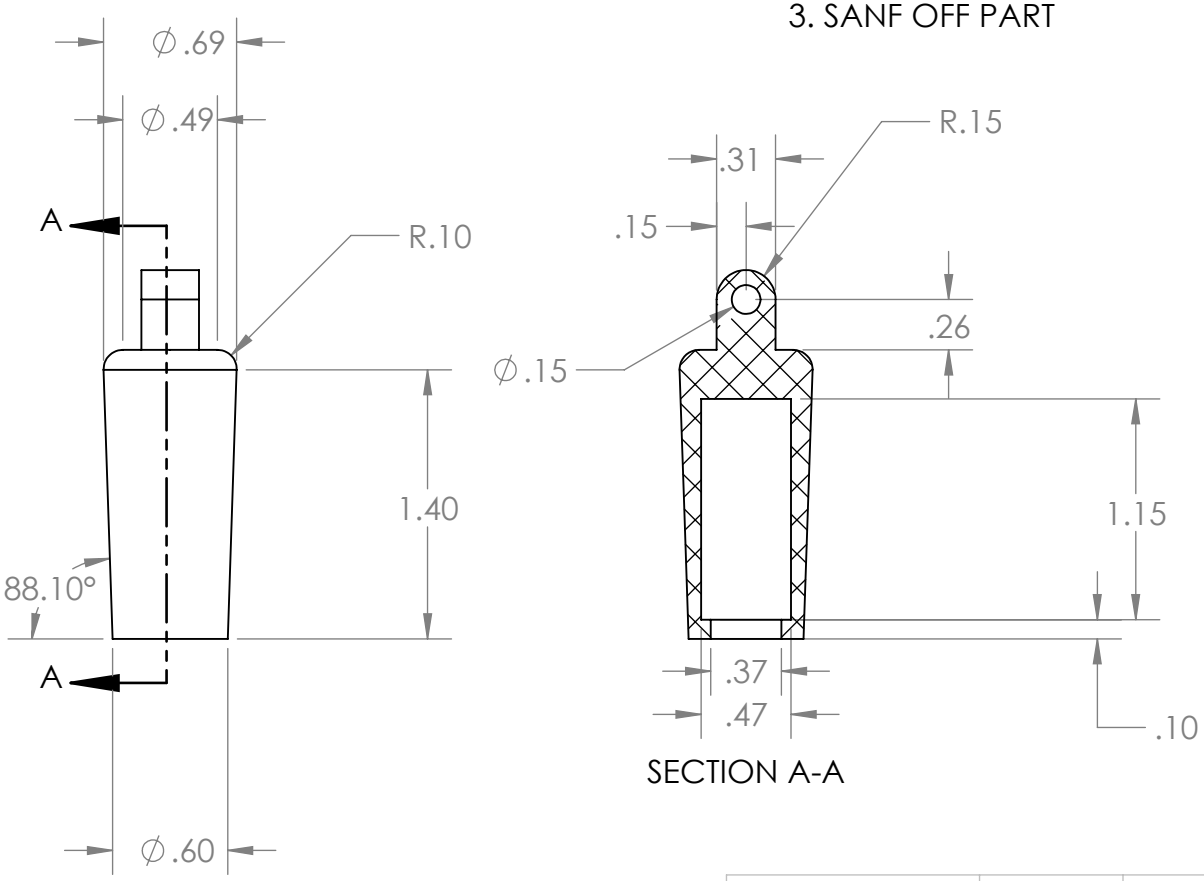
TITLE:

WISH BONE

SIZE	DWG. NO.	REV
A	V18-004-001	A
SCALE: 1:1	WEIGHT:	SHEET 1 OF 1

NOTES:
1. ORDER 3D PRINTED PARTS FROM XOMETRY
2. SHAVE OFF THE SUPPORT MATERIAL
3. SANF OFF PART





SECTION A-A

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	W. CARIAS	
	COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL NYLON			
FINISH			
DO NOT SCALE DRAWING			

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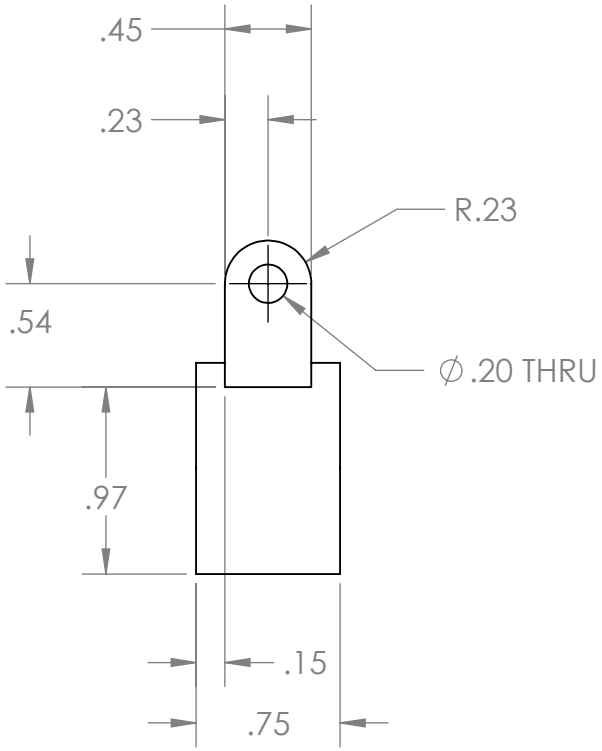
UCSB HYPERLOOP

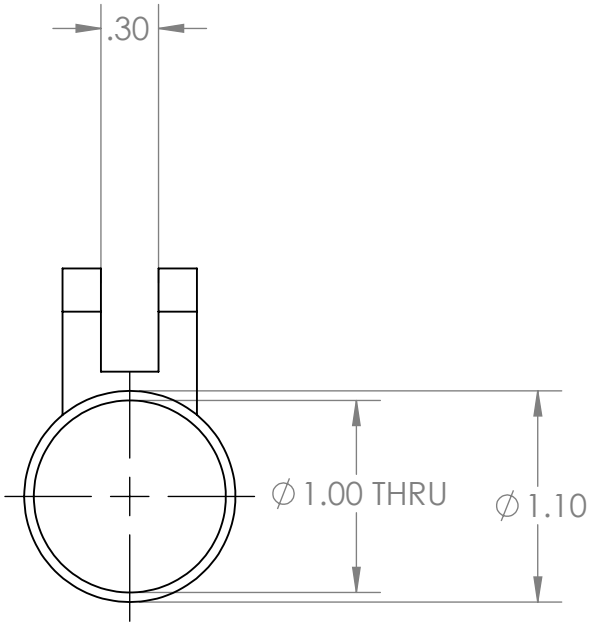
TITLE:

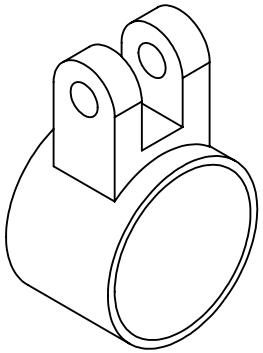
AIR CYLINDER

SIZE	DWG. NO.	REV
A	V18-004-003A	

SCALE: 1:1 | WEIGHT: | SHEET 1 OF 1







NOTES:
1. ORDER 3D PRINTED PARTS FROM XOMETRY
2. SHAVE OFF THE SUPPORT MATERIAL
3. SANF OFF PART

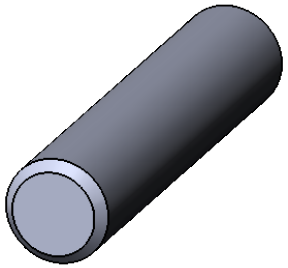
UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	W. CARIAS	
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS:		
MATERIAL Nylon			
FINISH			
DO NOT SCALE DRAWING			

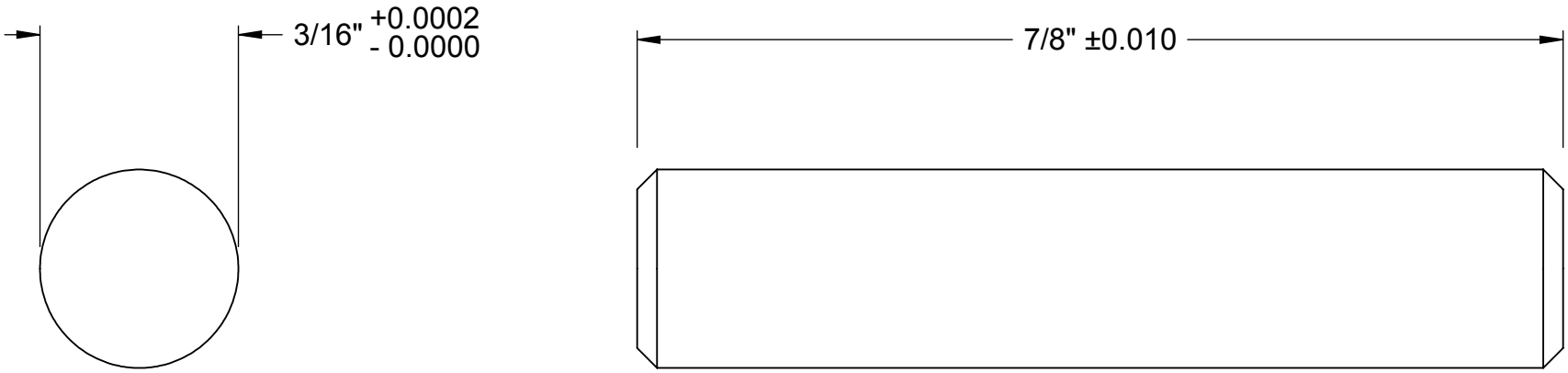
UCSB HYPERLOOP

TITLE:

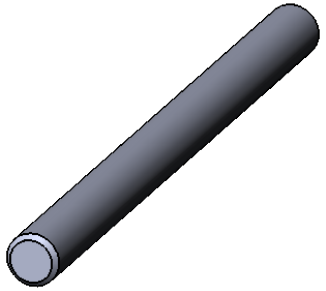
CLAMP

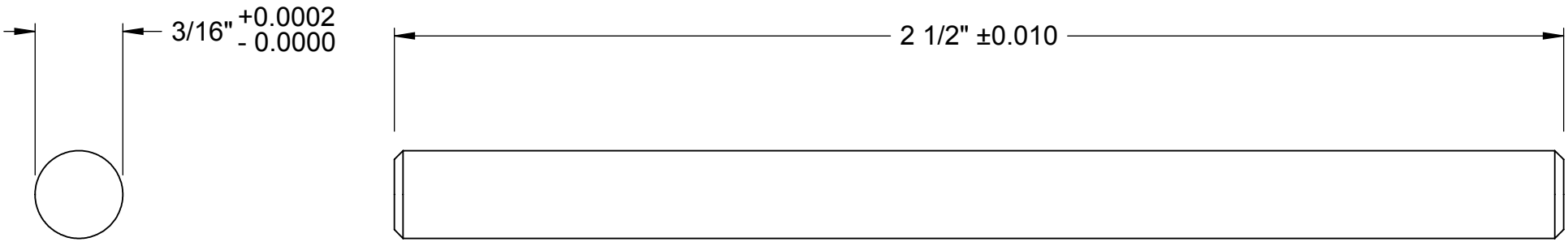
SIZE	DWG. NO.	REV
A	V18-004-004A	
SCALE: 1:1	WEIGHT:	SHEET 1 OF 1



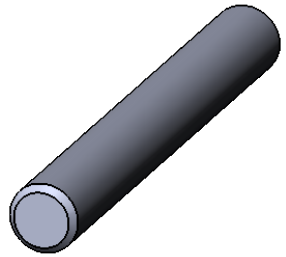


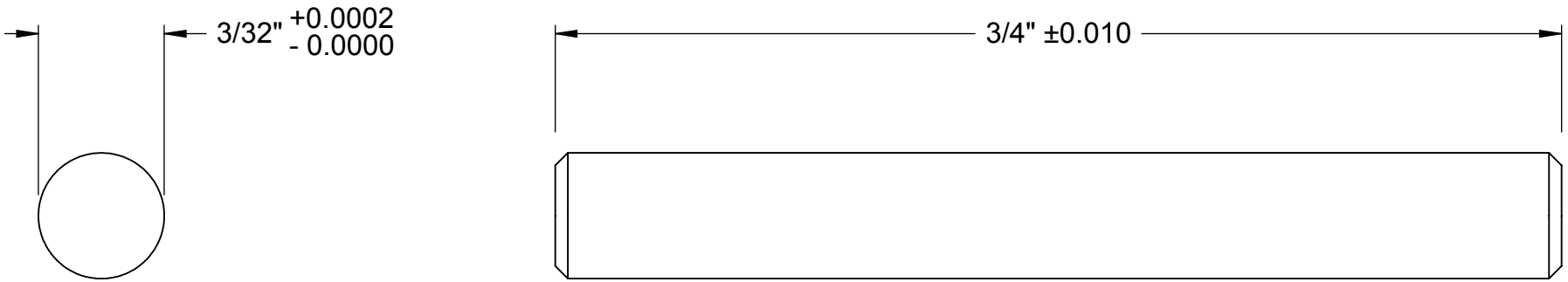
McMASTER-CARR® CAD	PART NUMBER **97395A472**
http://www.mcmaster.com	Type 316 Stainless Steel Dowel Pin





McMASTER-CARR® CAD	PART NUMBER **97395A620**
http://www.mcmaster.com © 2012 McMaster-Carr Supply Company Information in this drawing is provided for reference only.	Type 316 Stainless Steel Dowel Pin





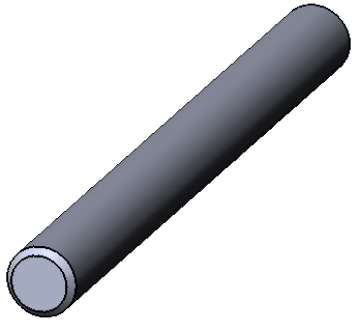
McMASTER-CARR® CAD

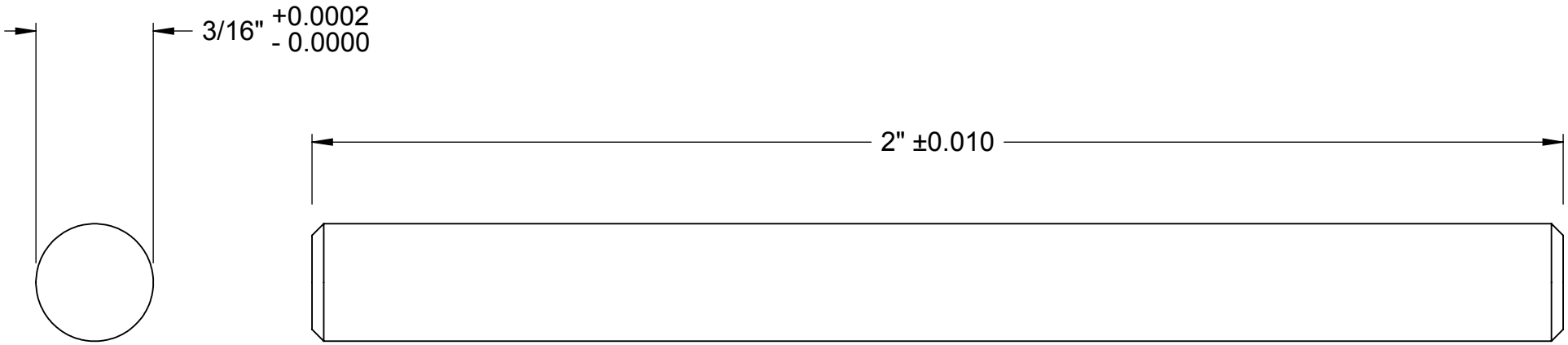
http://www.mcmaster.com

Information in this drawing is provided for reference only.

PART NUMBER **97395A433**

Type 316 Stainless Steel
Dowel Pin





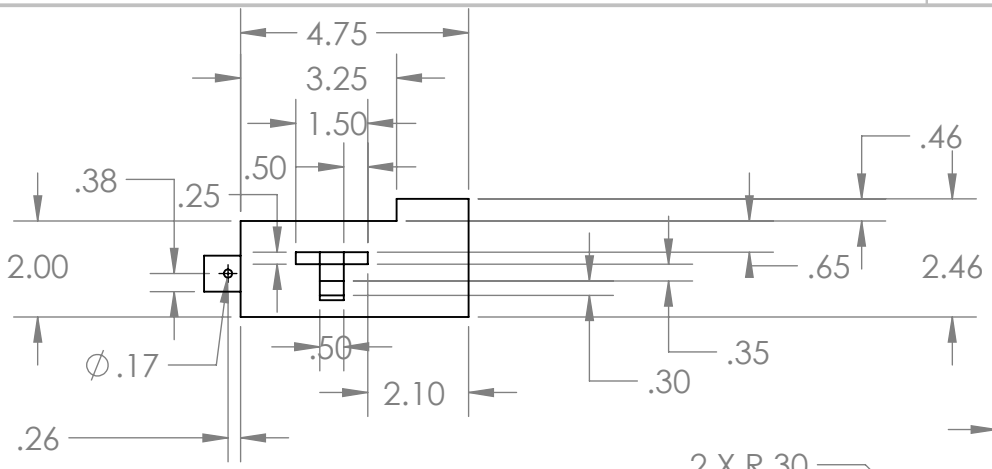
McMASTER-CARR® CAD

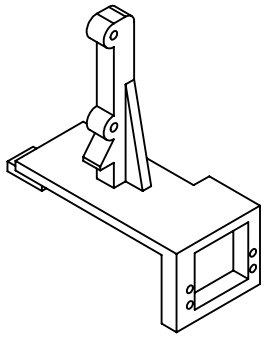
http://www.mcmaster.com

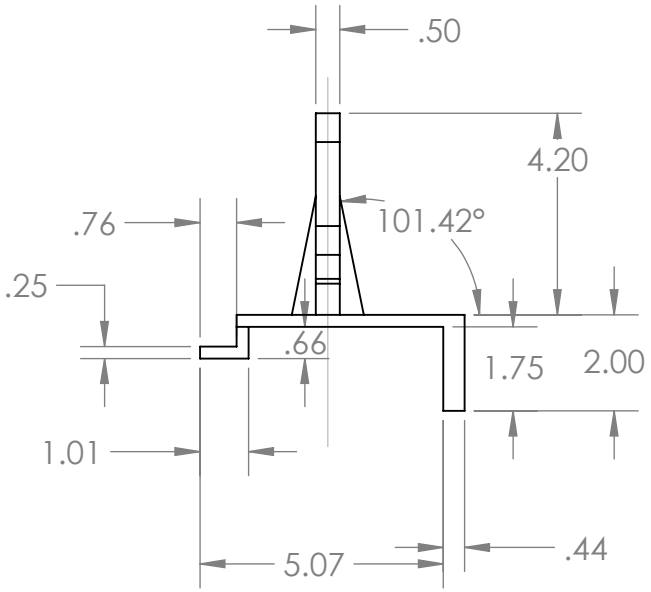
Information in this drawing is provided for reference only.

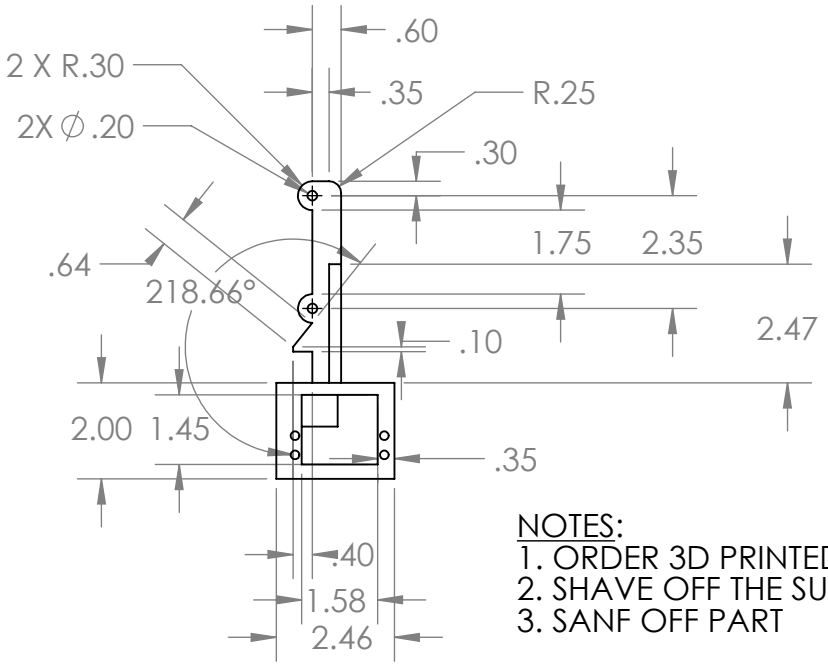
PART NUMBER **97395A618**

Type 316 Stainless Steel
Dowel Pin









NOTES:
1. ORDER 3D PRINTED PARTS FROM XOMETRY
2. SHAVE OFF THE SUPPORT MATERIAL
3. SANF OFF PART

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	W. CARIAS	
	COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL NYLON			
FINISH			
DO NOT SCALE DRAWING			

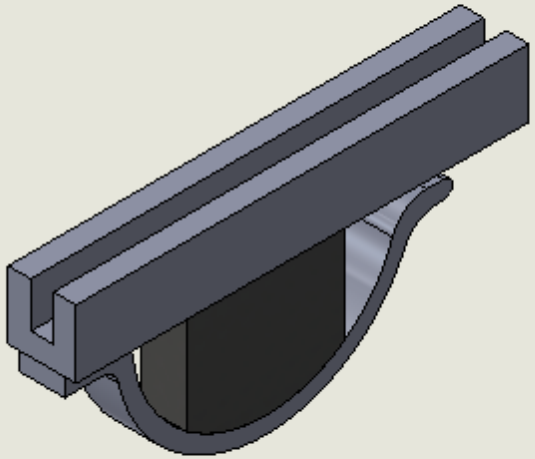
UCSB HYPERLOOP

TITLE:

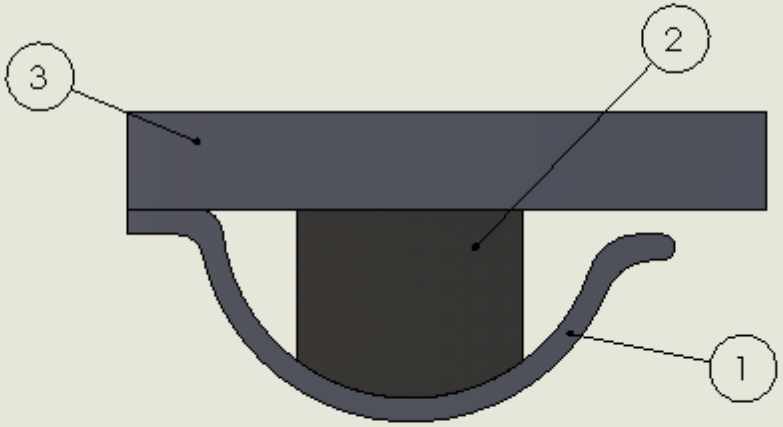
SUSPENSION BASE

SIZE	DWG. NO.	REV
A	V18-004-005A	

SCALE: 1:4	WEIGHT:	SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L18-004-001	Leaf Spring	1
2	L18-004-002	Foam Block	1
3	L18-004-003	Leaf Spring Connector	1



UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	Gavin Maroon	3/8/18
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS:		
MATERIAL			
FINISH			
DO NOT SCALE DRAWING			

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UCSB HYPERLOOP

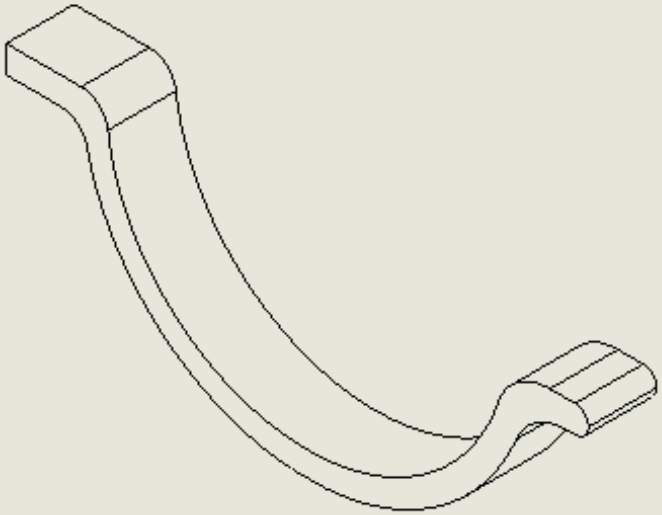
TITLE:

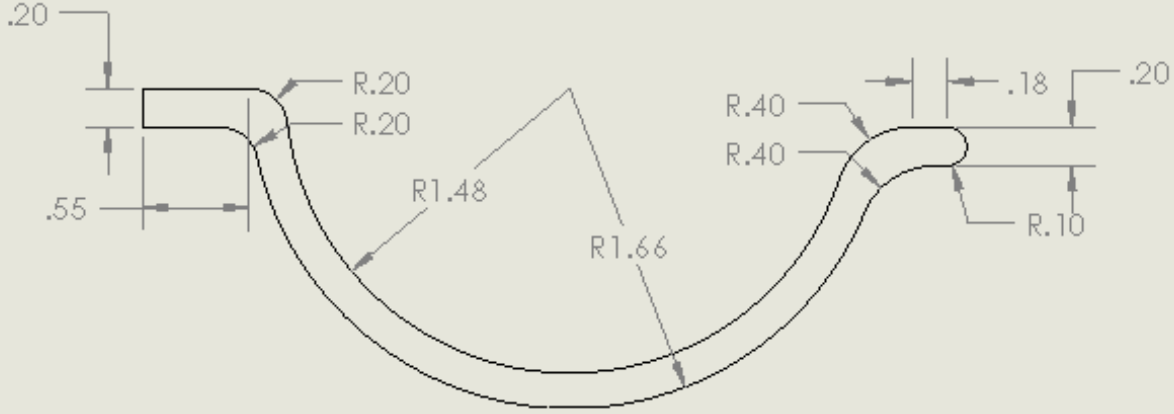
Lateral Stability Assembly

SIZE	DWG. NO.	REV
A	L18-004	1
SCALE: 1:1	WEIGHT:	SHEET 1 OF 1

Fabrication Schedule

1. Create mold for Epoxy resin out of wood and cardboard
2. Fill mold with Epoxy resin
3. Let rest until fully hardened
4. Repeat until the thickness is greater than desired (0.5 inches)
5. Remove the hardened epoxy from the mold
6. Sand the epoxy down until the desired dimensions





		NAME	DATE
UNLESS OTHERWISE SPECIFIED:			
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	Covin Marcon	3/8/18
	COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL Epoxy			
FINISH			
DO NOT SCALE DRAWING			

UCSB HYPERLOOP

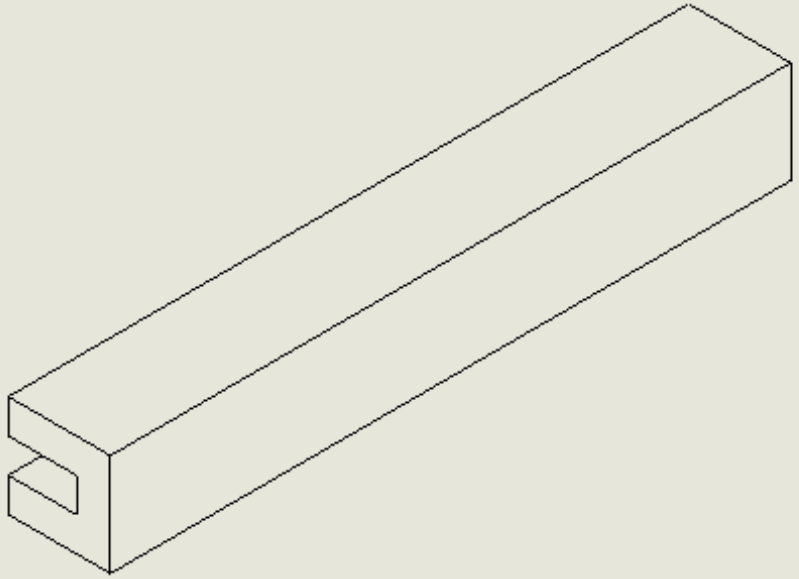
TITLE:

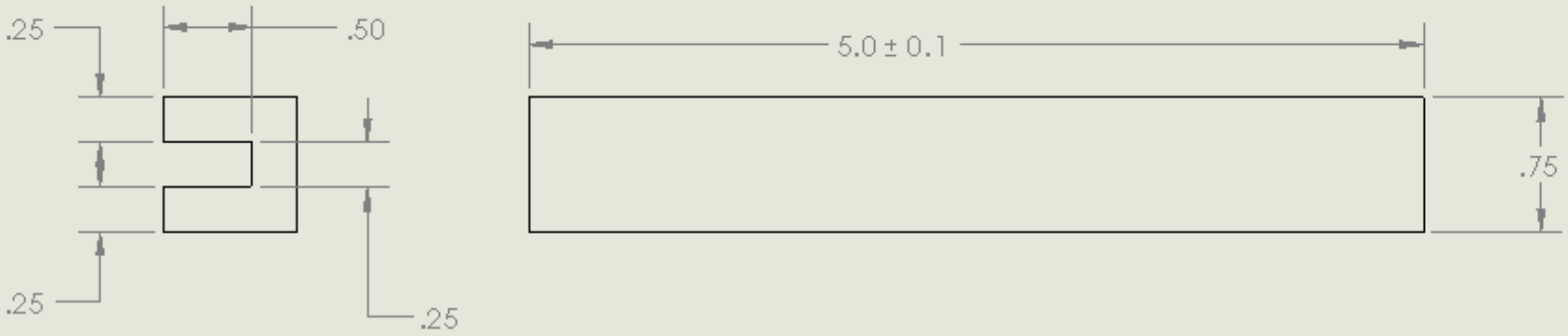
Leaf Spring

SIZE	DWG. NO.	REV
A	L18-004-001	1
SCALE: 1:1	WEIGHT:	SHEET 1 OF 1

ucsb gaucholoop

Fabrication Schedule
1. 3D print part through Xometry.com
2. Clean out support material
3. Sand down dimensions where needed





UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	Gavin Marcon	3/8/18
	COMMENTS: 3D printed		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL: ABS Plastic			
FINISH			
DO NOT SCALE DRAWING			

UCSB HYPERLOOP

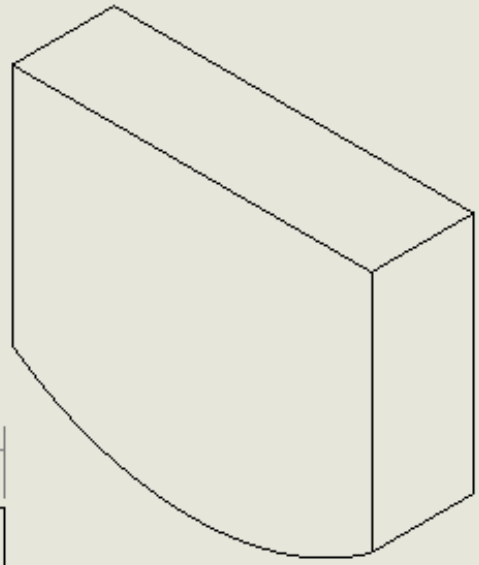
TITLE:

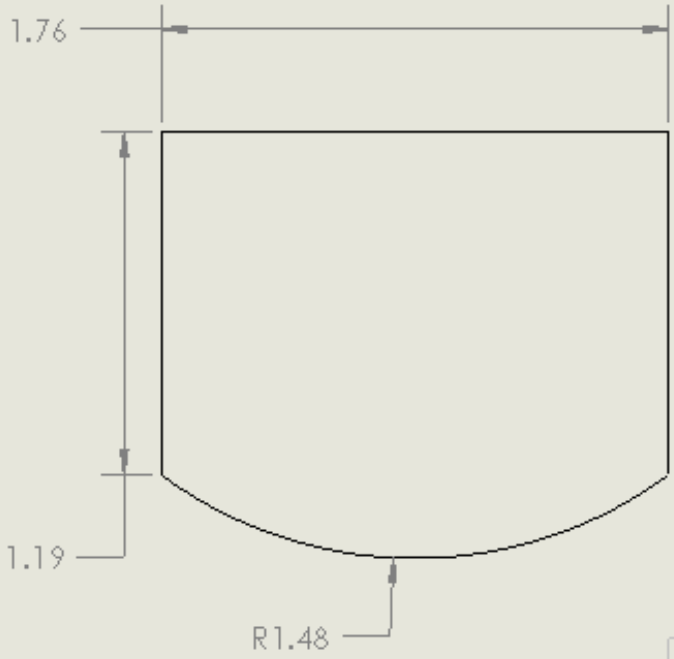
Leaf Spring Connector

SIZE	DWG. NO.	REV
A	L18-004-003	1
SCALE: 1:1	WEIGHT:	SHEET 1 OF 1

Fabrication Schedule

1. Buy polyurethane foam 0.5 inches thick
2. Measure and mark dimensions onto foam
3. Cut out desired shape





UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	Gavin Marcon	3/8/18
	COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL Polyurethane Foam			
FINISH			
DO NOT SCALE DRAWING			

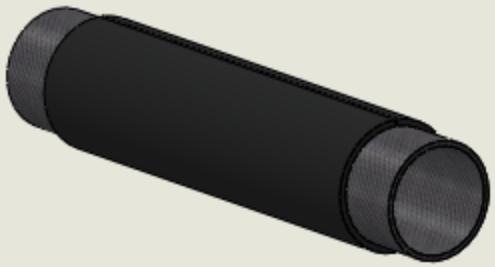
UCSB HYPERLOOP

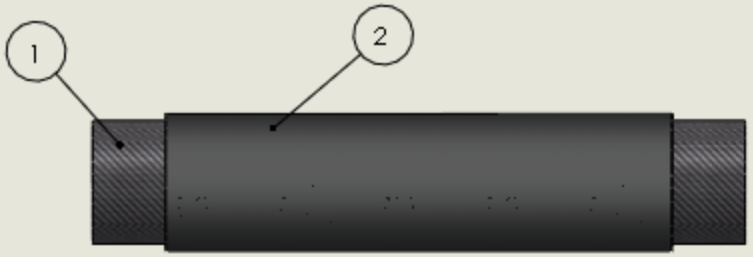
TITLE:

Foam Block

SIZE	DWG. NO.	REV
A	L18-004-002	1
SCALE: 2:1	WEIGHT:	SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	B18-004-001	Braking Bar	1
2	B18-004-002	Rubber Brake	1





UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
TWO PLACE DECIMAL ±.01
THREE PLACE DECIMAL ±.005
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5
MATERIAL
FINISH
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	Gavin Marcon	3/8/18

COMMENTS:

ucsb gaucholoop

UCSB HYPERLOOP

TITLE:

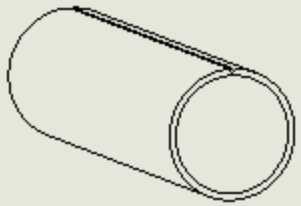
Secondary Braking System

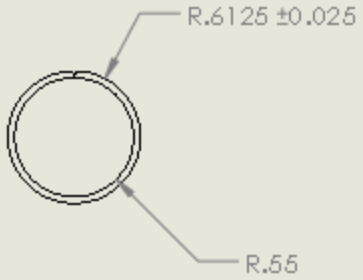
SIZE	DWG. NO.	REV
A	B18-004	1

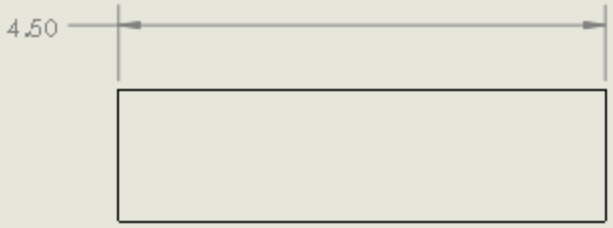
SCALE 1:2	WEIGHT:	SHEET 1 OF 1

Fabrication Schedule

1. Purchase a one-eighth inch thick rubber
2. Cut the desired length and width into the sheet of rubber
3. Wrap the cut sheet around the Braking Bar
4. Secure with adhesive







UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	Dave Mallon	3/8/18
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5	COMMENTS:		
MATERIAL Rubber			
FINISH DO NOT SCALE DRAWING			

UCSB HYPERLOOP

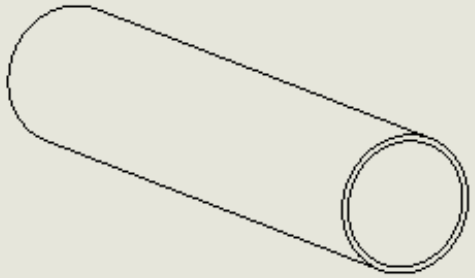
TITLE:

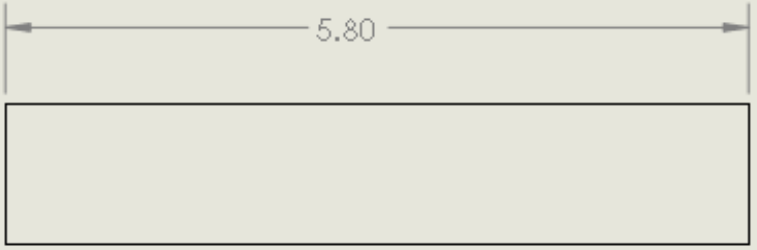
Rubber Brake

SIZE	DWG. NO.	REV
A	B18-004-002	1

SCALE: 1:2 WEIGHT: SHEET 1 OF 1

Fabrication Schedule
1. Purchase a 1" thick carbon fiber tube
2. Cut it down to the desired length





UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES TOLERANCES: TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	DRAWN	Gavin Marcon	3/8/18
	COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5			
MATERIAL Carbon Fiber			
FINISH DO NOT SCALE DRAWING			

UCSB HYPERLOOP

TITLE:
Braking Bar

SIZE	DWG. NO.	REV
A	B18-004-001	1
SCALE: 1:2	WEIGHT:	SHEET 1 OF 1