

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TR-02	T-Slotted Framing (1 in. x 2 in.)	1
2	TR-01	T-Slotted Framing (2 in. x 2 in.)	2
3	TR-07	Track Bottom Connector	2
4	TR-04	Pop pin track	2
5	TR-06	Track Track Connector (R)	2
6	TR-05	Track Track Connector (L)	2
7	HW-01	Black-Oxide Alloy Steel Socket Head Screw	36
8	HW-03	T-Slotted Framing Fasteners	44
9	HW-02	Low-Strength Steel Thin Nylon-Insert Locknut	12
10	TR-08	High-Strength Grade 5 Titanium Rod	1
11	TR-09	Clamping Two-Piece Shaft Collar	2
12	TR-03	Track End Brace	2
13	HW-06	Black-Oxide Alloy Steel Hex Drive Flat Head Screw	20



AUTHOR:  
Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/2/2025

CLASS: GROUP  
MIE 243 #3

PREPARED FOR:  
DRAWING PURPOSE

## Track Assembly



MATERIAL: Mixed

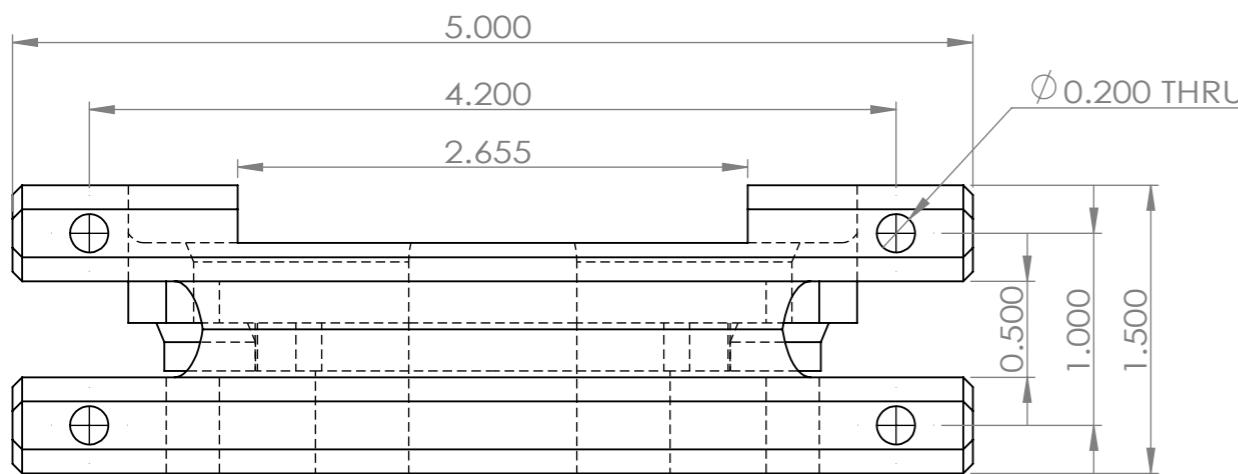
PART NO.  
N/A

REV.  
1

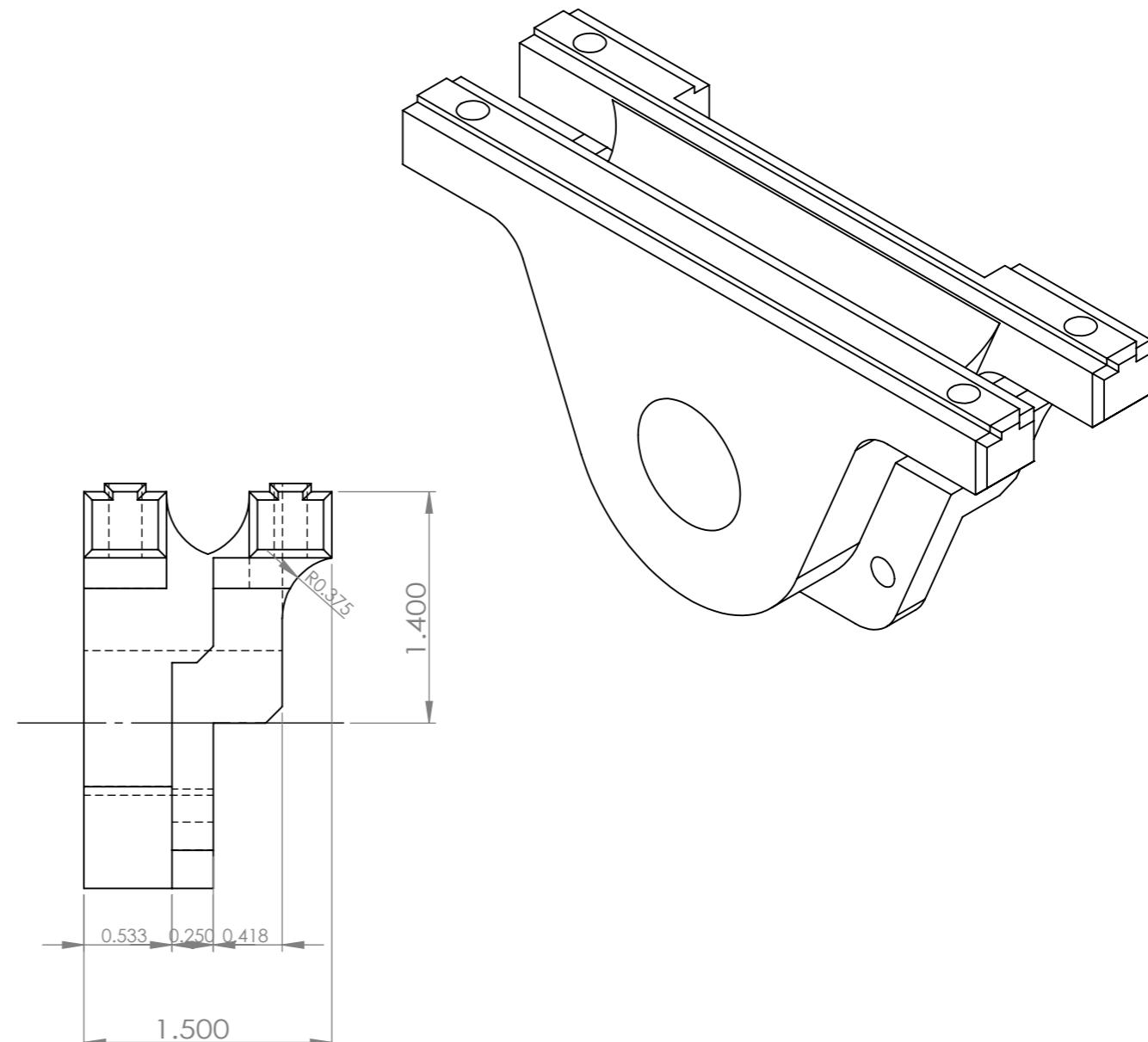
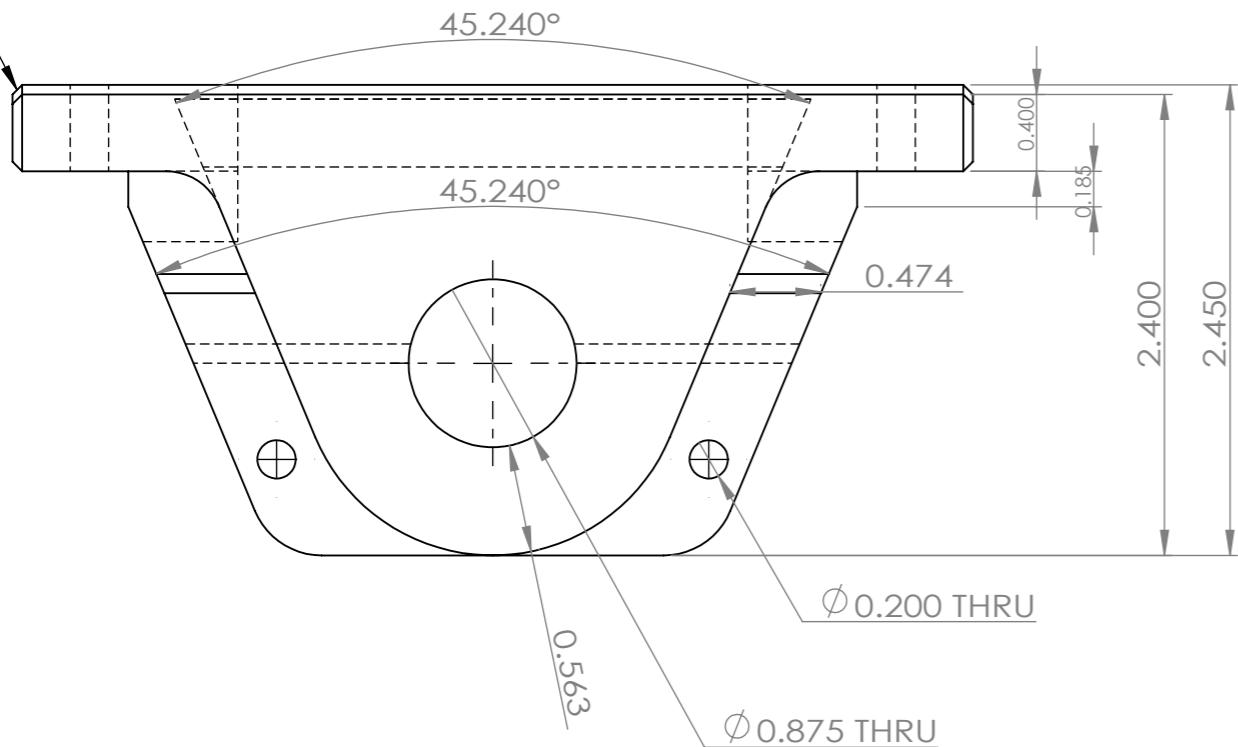
UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE

SCALE: 1:3

SHEET 1 OF 1



NOTE: Chamfers all 0.05 in. 45 deg.



AUTHOR:  
Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/2/2025



MATERIAL: 1060 Alloy

CLASS: GROUP  
MIE 243 #3

PREPARED FOR:  
DRAWING PURPOSE

TITLE:  
Track Bottom Connector

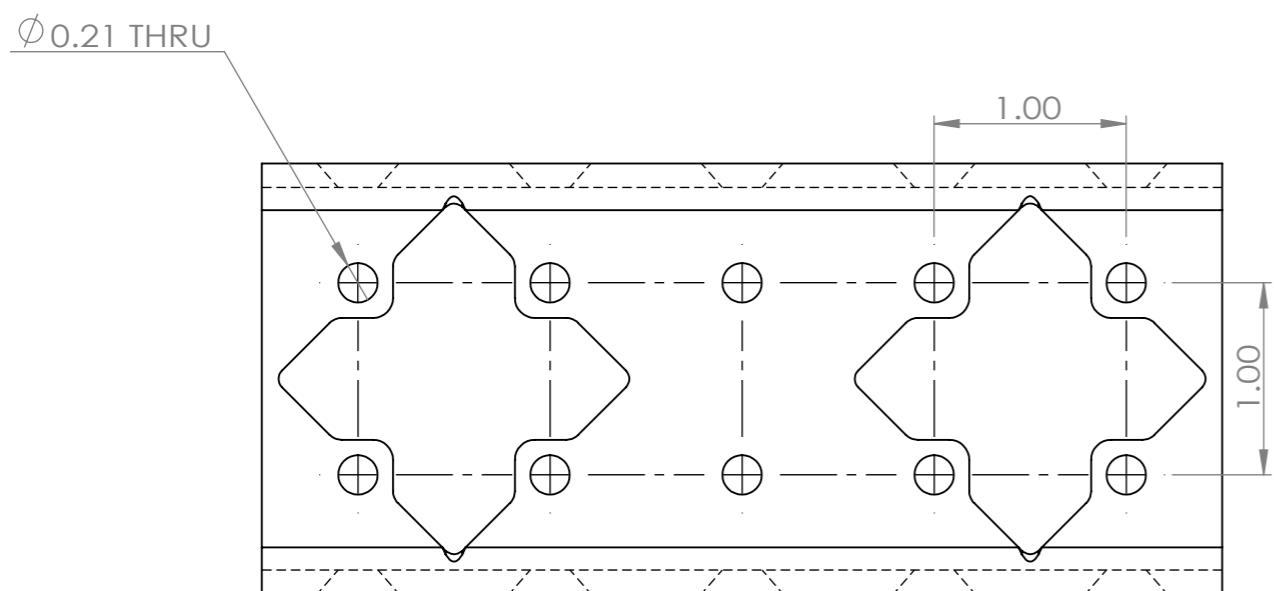
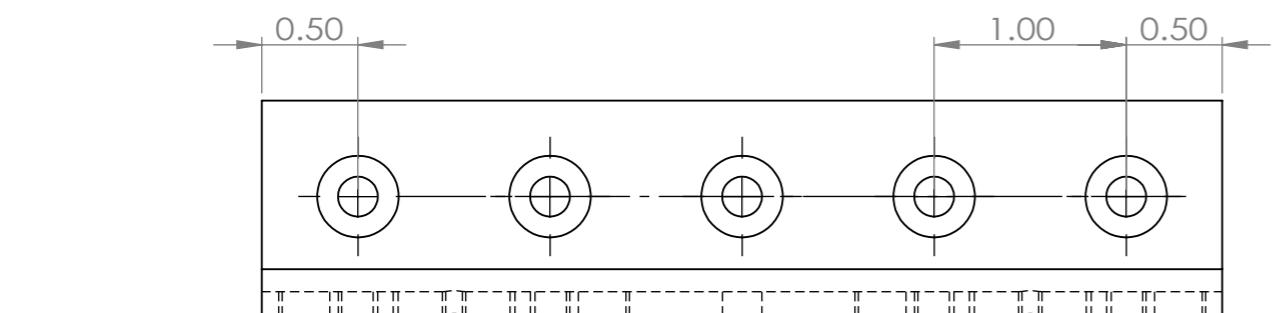
PART NO.  
TR-07

REV.  
1

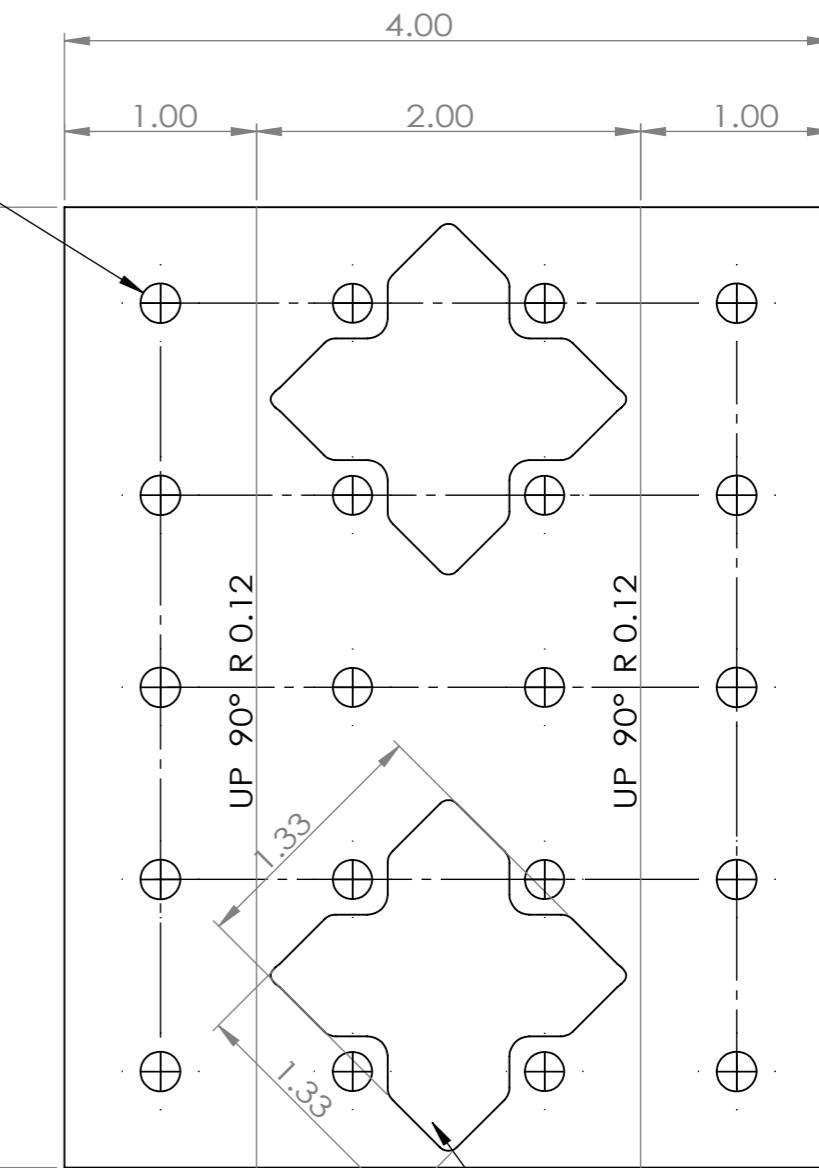
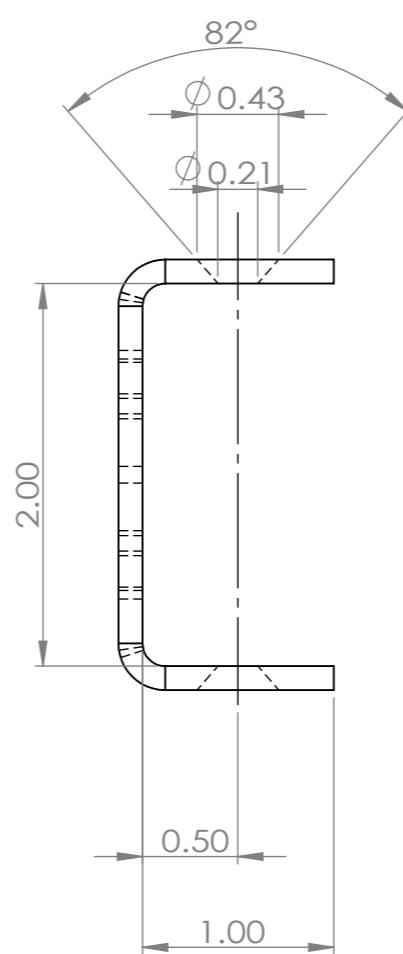
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SCALE: 1:1

SHEET 1 OF 1



NOTE: Countersink 82°



Note: Cutouts for weight.  
Not strictly dimensioned



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Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/2/2025

CLASS: GROUP  
MIE 243 #3

PREPARED FOR:  
DRAWING PURPOSE

TITLE:  
**Track End Brace**



MATERIAL:  
6061 Alloy (Sheet)

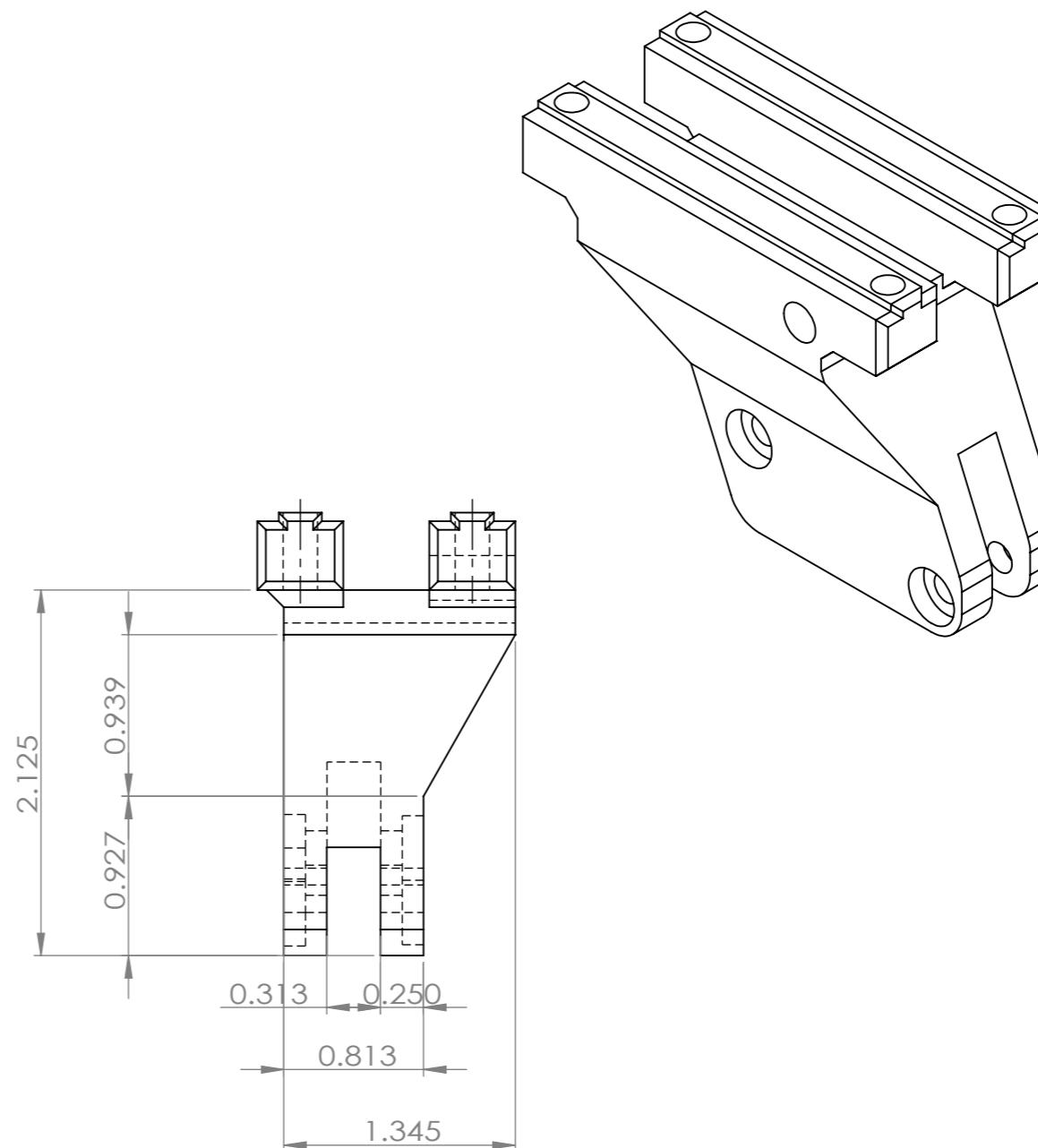
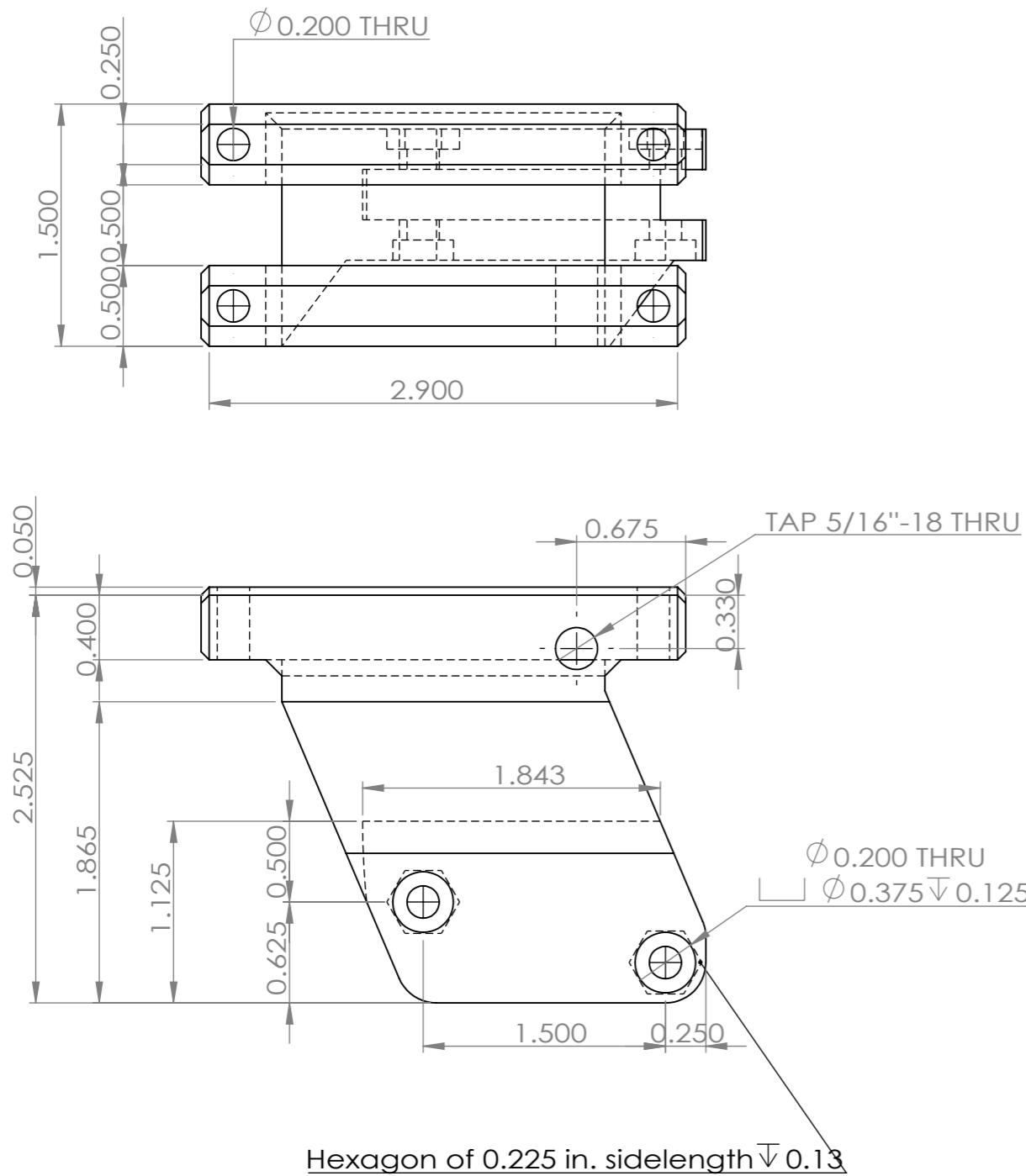
PART NO.  
TR-03

REV.  
1

UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE

SCALE: 1:1

SHEET 1 OF 1



AUTHOR:  
Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/2/2025

MATERIAL: 1060 Alloy

CLASS: GROUP  
MIE 243 #3

TITLE:  
Track Side Connector (R)

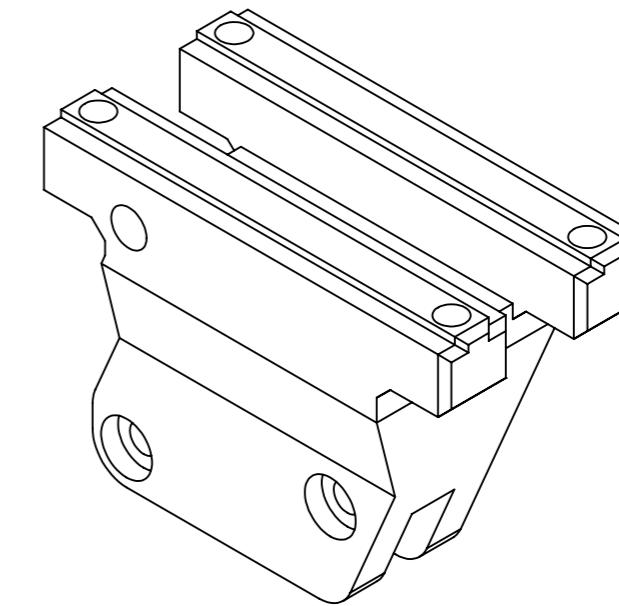
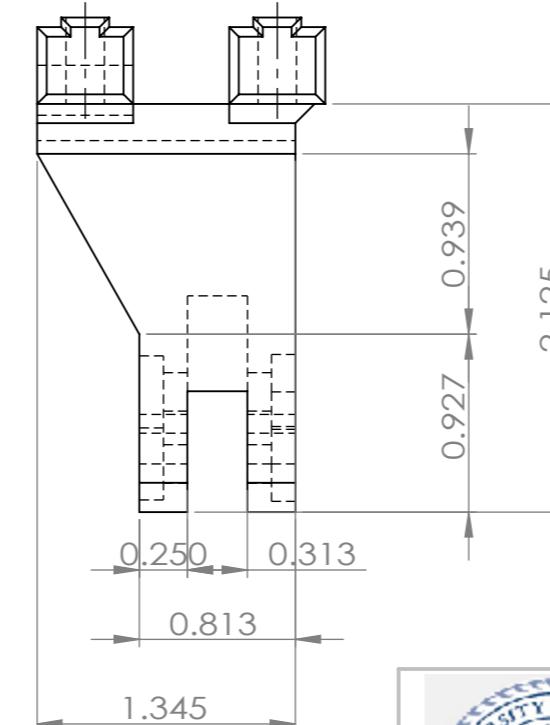
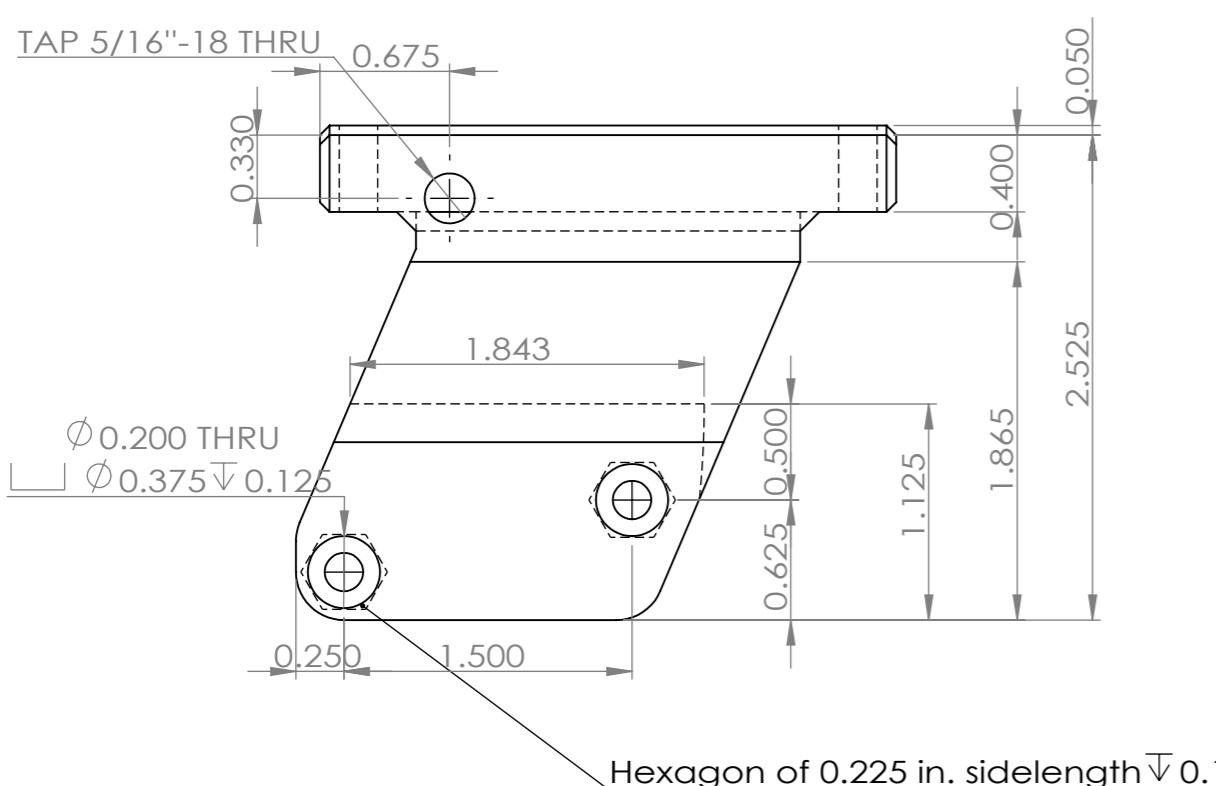
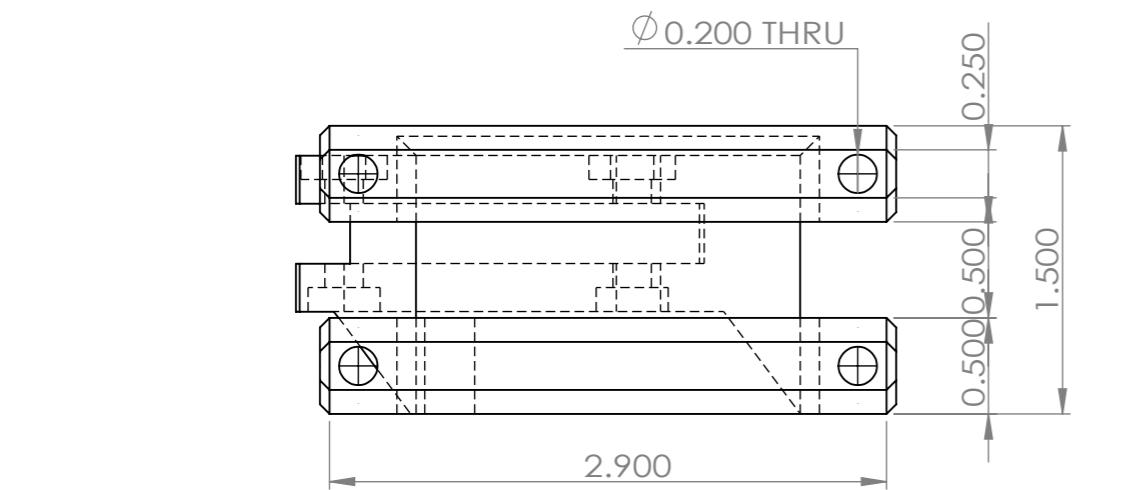
PART NO.  
TR-06

REV.  
1

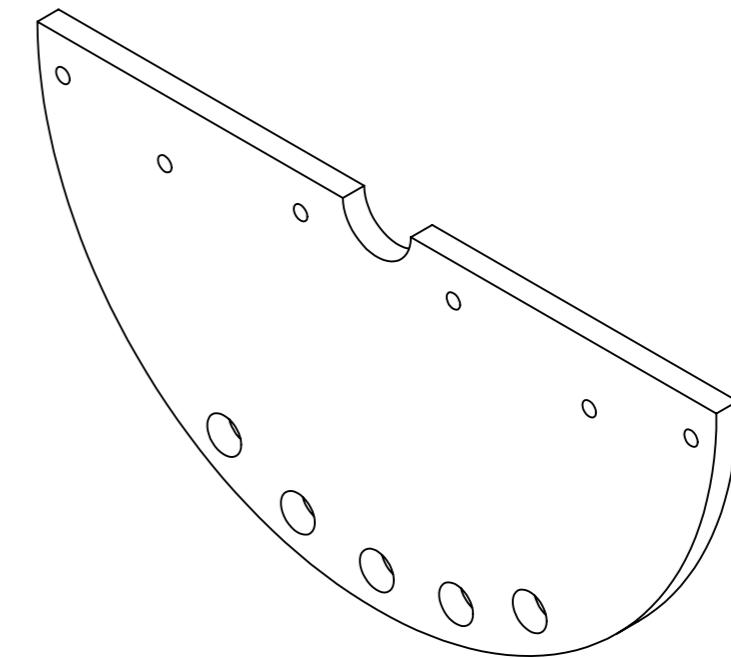
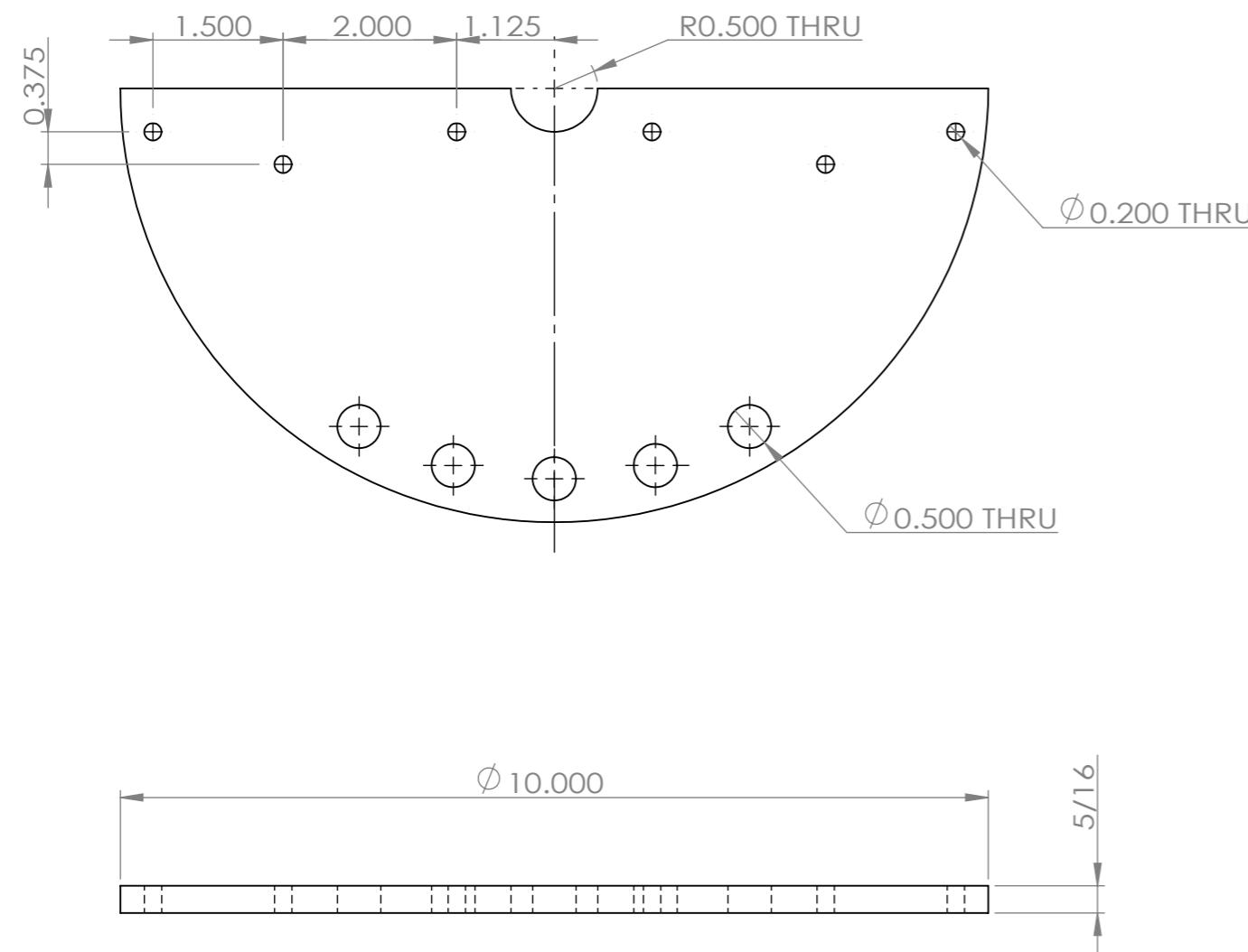
UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE

SCALE:1:1

SHEET 1 OF 1



	AUTHOR: Jaden Zhang	CLASS: GROUP MIE 243 #3	PREPARED FOR: DRAWING PURPOSE
	STUDENT NO. 1011011815	TITLE: <b>Track Side Connector (R)</b>	
	DATE: 12/2/2025		
	MATERIAL: 1060 Alloy	PART NO. TR-06	REV. 1
UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE		SCALE:1:1	SHEET 1 OF 1



AUTHOR:  
Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/2/2025

MATERIAL:  
201 Annealed SS (Sheet)

CLASS: GROUP  
MIE 243 #3

TITLE:

**Pop-pin Track**

PART NO.  
TR-04

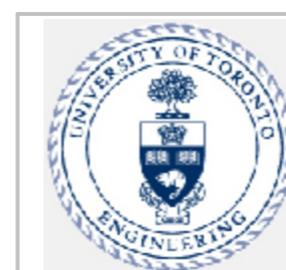
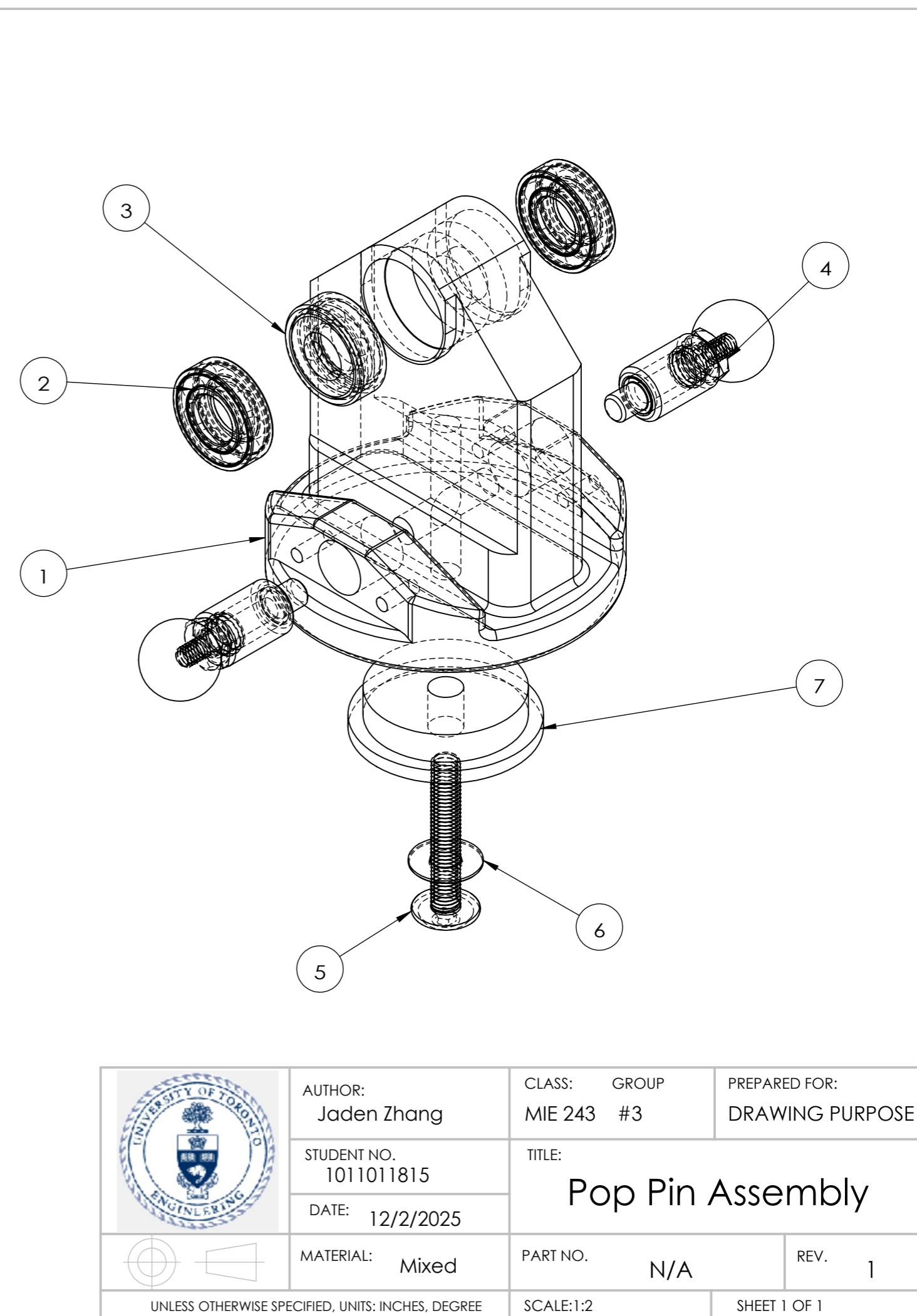
REV.  
1

UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE

SCALE: 1:2

SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	PR-01	Pop pin Housing	1
2	PP-04	Permanently Lubricated Stainless Steel Ball Bearing	2
3	PP-05	One-Piece Steel Thrust Ball Bearing	1
4	PP-03	Steel Weld-Mount Retractable Pop - pin	2
5	HW-04	18-8 Stainless Steel Flanged Button Head Screw	1
6	HW-05	316 Stainless Steel Washer	1
7	PP-02	Pop-pin housing Bottom Clamp	1



AUTHOR:  
Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/2/2025

MATERIAL: Mixed

CLASS: GROUP  
MIE 243 #3

TITLE:

Pop Pin Assembly

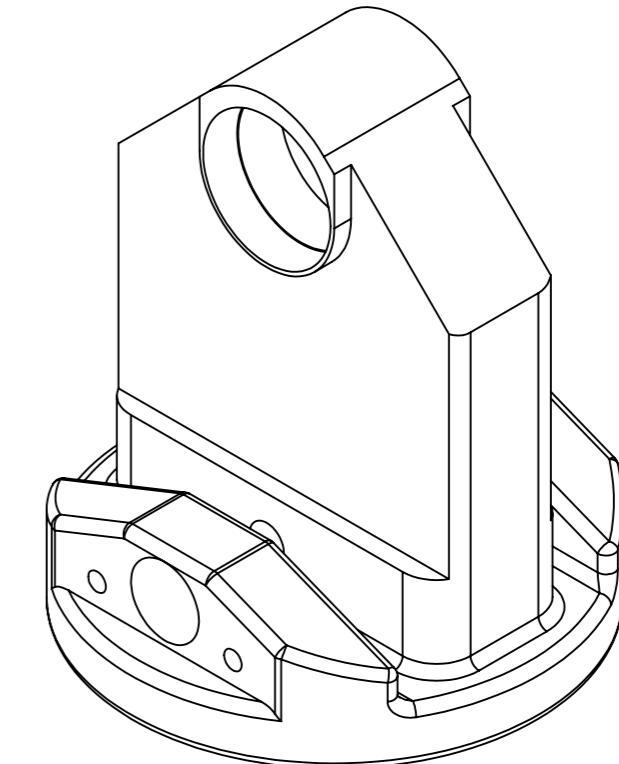
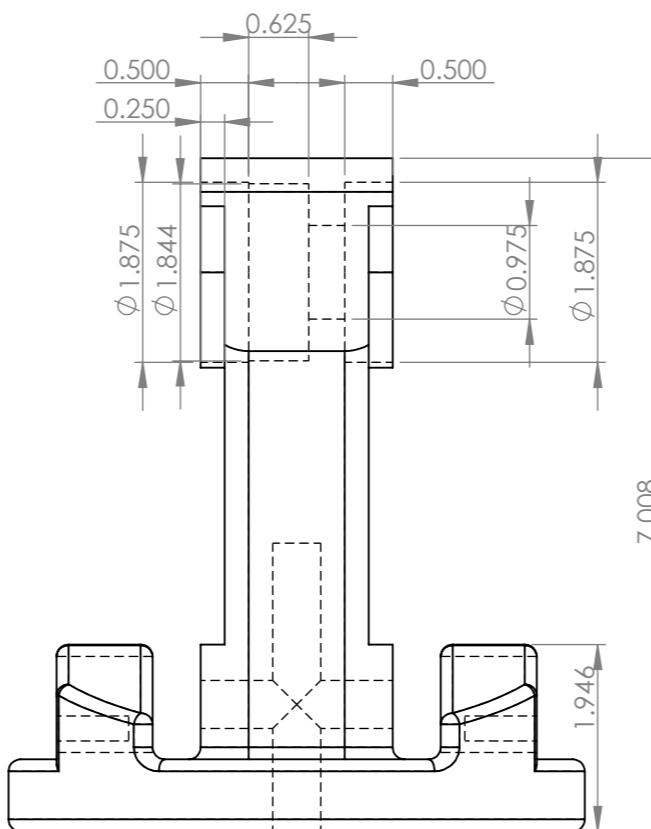
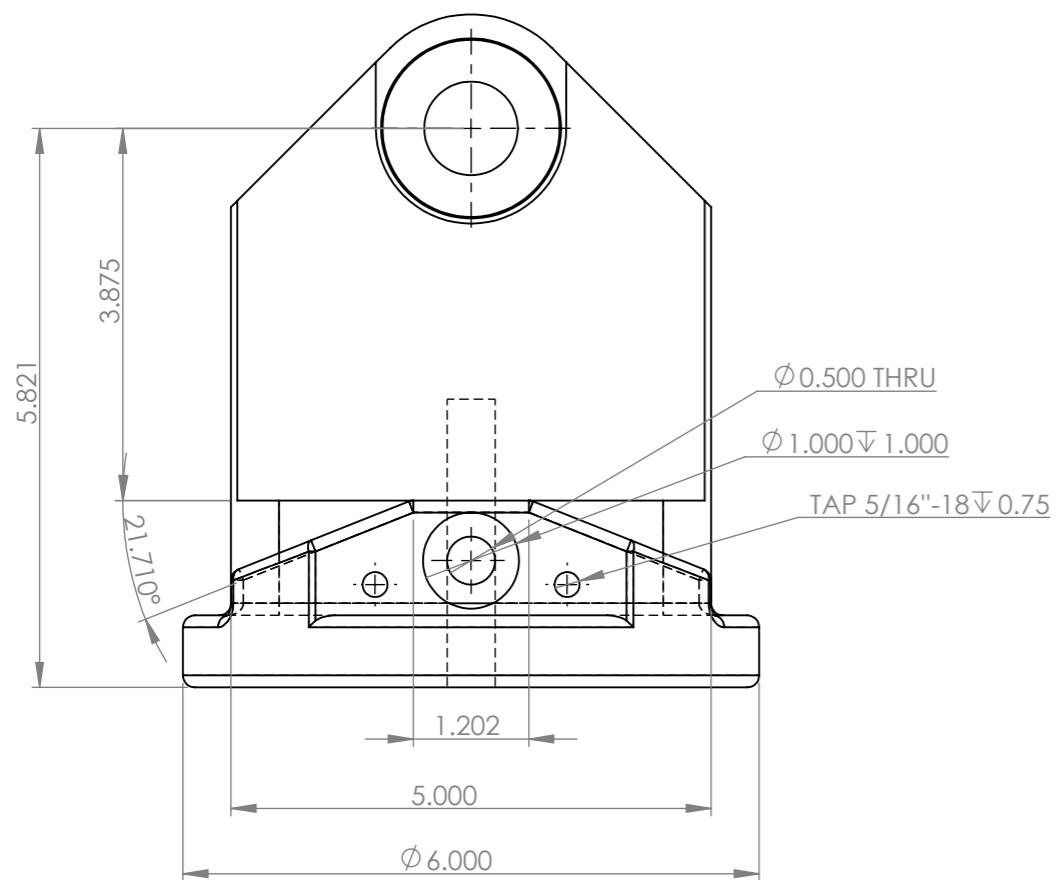
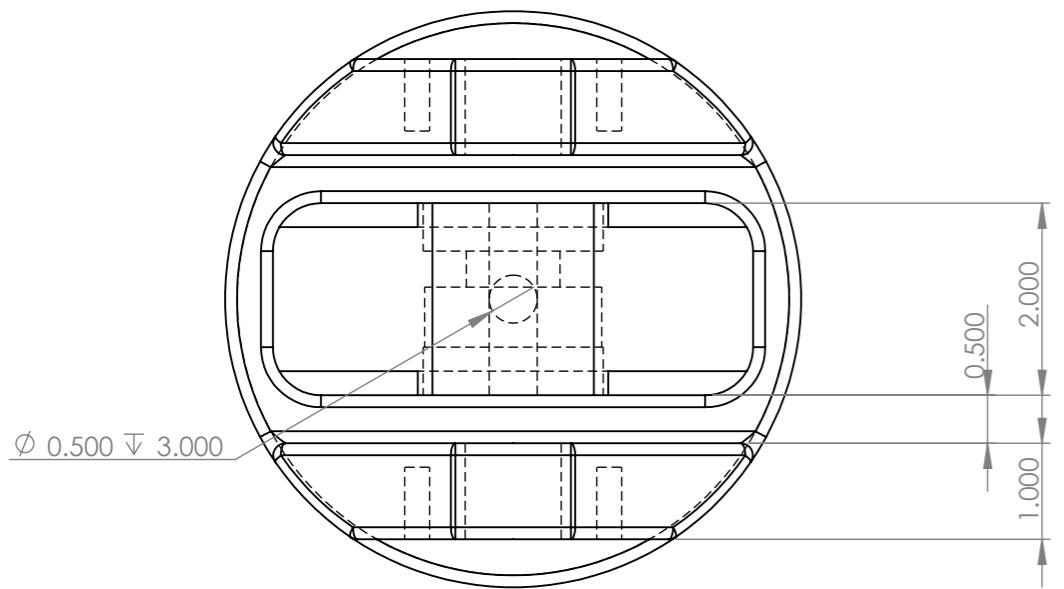
PART NO.  
N/A

REV. 1

UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE

SCALE:1:2

SHEET 1 OF 1



AUTHOR:  
Jaden Zhang

STUDENT NO.  
1011011815

DATE: 12/1/2025

MATERIAL: 6061-T6 (SS)

UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE

CLASS: GROUP  
MIE 243 #3

TITLE:

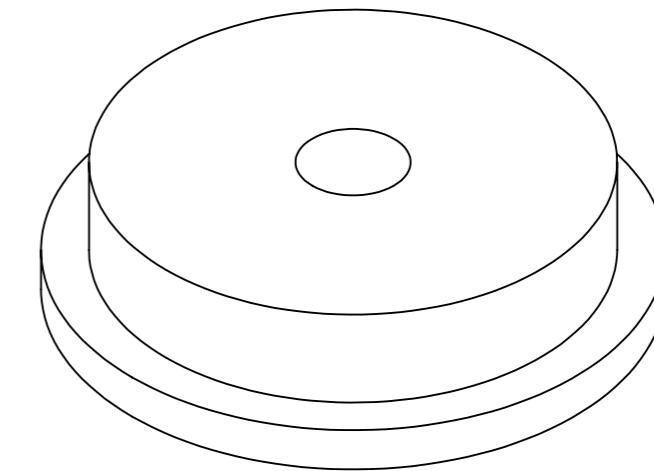
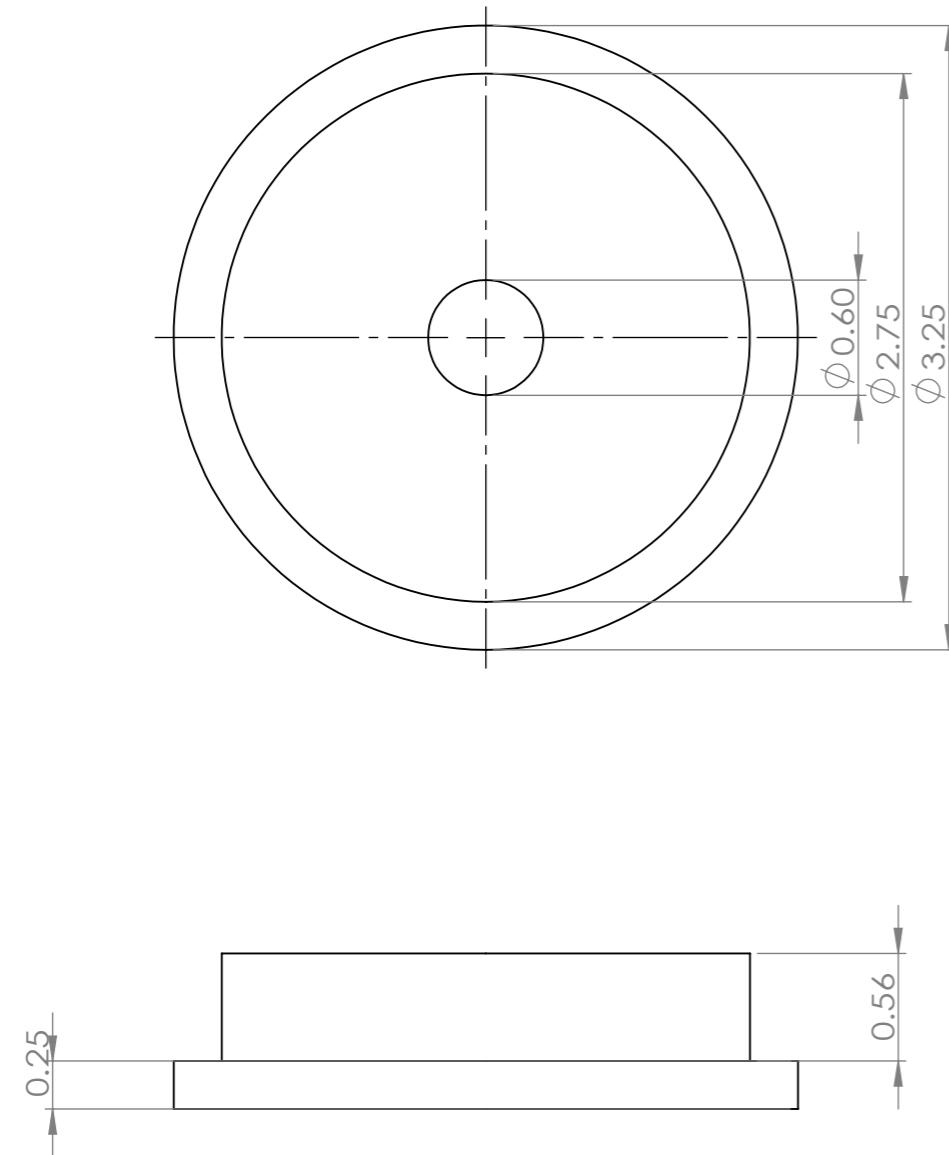
Pop Pin Housing

PART NO.  
PP-1

REV.  
1

SCALE: 1:2

SHEET 1 OF 1



	AUTHOR: Jaden Zhang	CLASS: GROUP MIE 243 #7	PREPARED FOR: DRAWING PURPOSE
	STUDENT NO. 1011011815	TITLE: Pop-pin Housing Bottom Clamp	
	DATE: 12/2/2025		
	MATERIAL: 6061-T6(SS)	PART NO. PP-2	REV. 1
UNLESS OTHERWISE SPECIFIED, UNITS: INCHES, DEGREE		SCALE:1:1	SHEET 1 OF 1