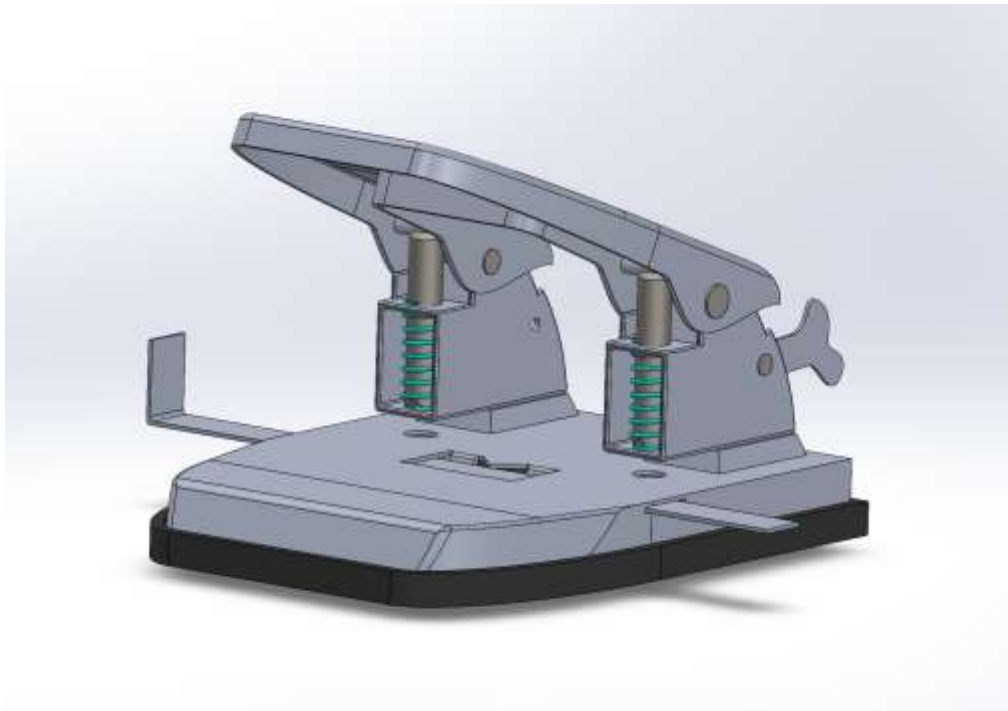


Worcester Polytechnic Institute

ES 1310 Final Project:

Hole Puncher



Angelo Reade

6/26/2025

1

B

A

DWG. NO.	Expl. View
-------------	------------

1

2

1

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	16-A	Base Plate	6061-T6 (SS)	1
2	17-A	Clipping Dish	SANTOPRENE	1
3	16-B	Ruler 182MM L x 12.5MM W	6061-T6 (SS)	1
4	16-C	Mounting Bracket	6063-T6	2
5	16-D	Handle	6061-T6 (SS)	1
6	16-E	Safety Clip	6061-T6 (SS)	1
7	18-A	Cutting Dowel 8MM DIA x 43MM	AISI Type A2 Tool Steel	2
8	18-B	Spring ID 1MM OD 9MM	Plain Carbon Steel	2
9	19-A	Fastening Pin, 4MM	AISI 304	2
10	19-B	Fastening Pin, 3MM	AISI 3040.39	1
11	19-C	Fastening Pin, 5MM	AISI 304	4

SECTION C-C
SCALE 1 : 2.5

Mechanical Engineering Department
Worcester Polytechnic Institute

UNLESS OTHERWISE SPECIFIED
DIMENSIONS
ARE IN MM. TOLERANCES ARE
.X ± .05 .XX ± .01 ANGLES ± 1°
DIMENSIONING AND TOLERANCE
IN ACCORDANCE WITH
ASME Y14.5-2018

MATL
Varies

DRAWN BY:
AR

DATE:
6/26/2025

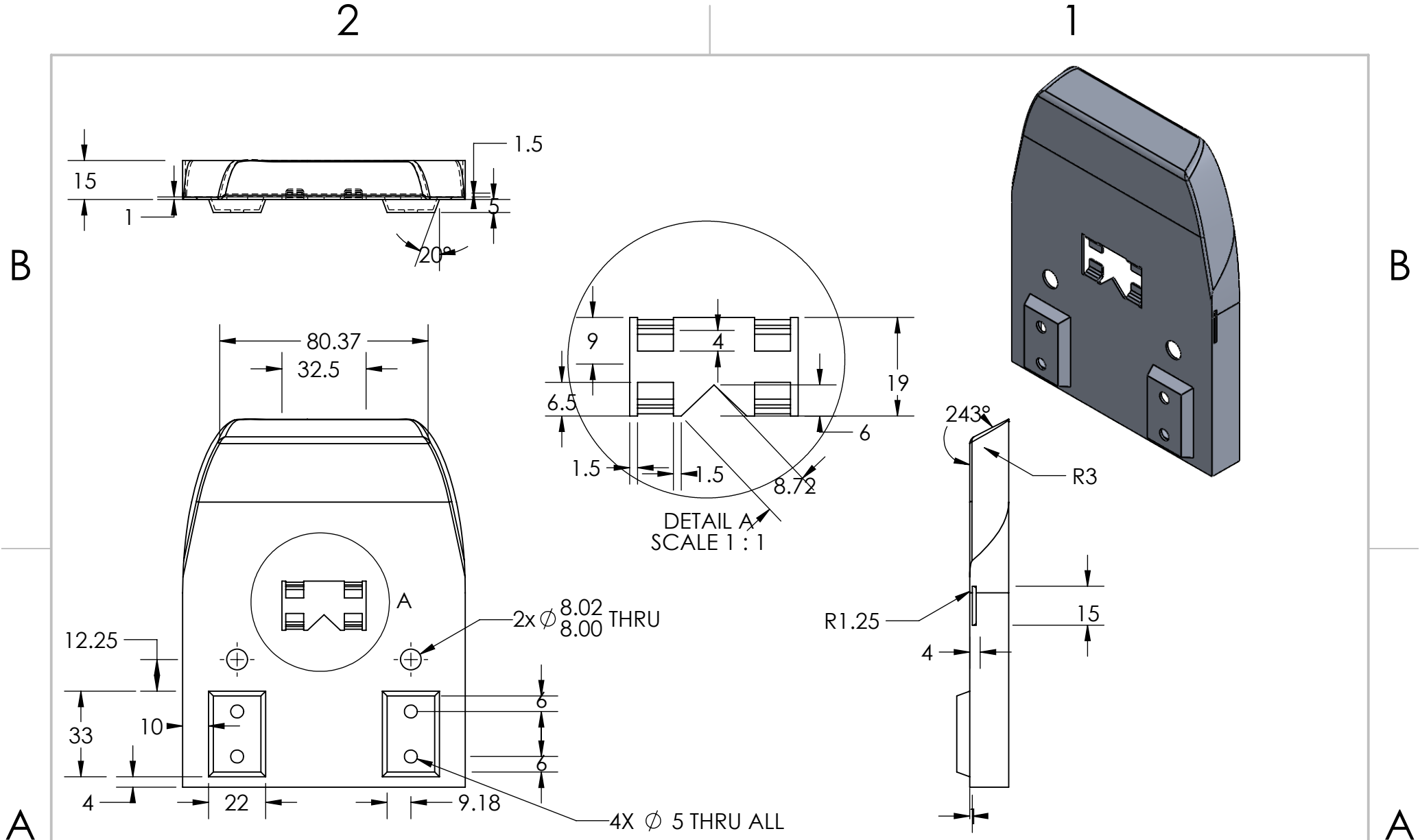
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Hole-Puncher

SCALE 1:2.5

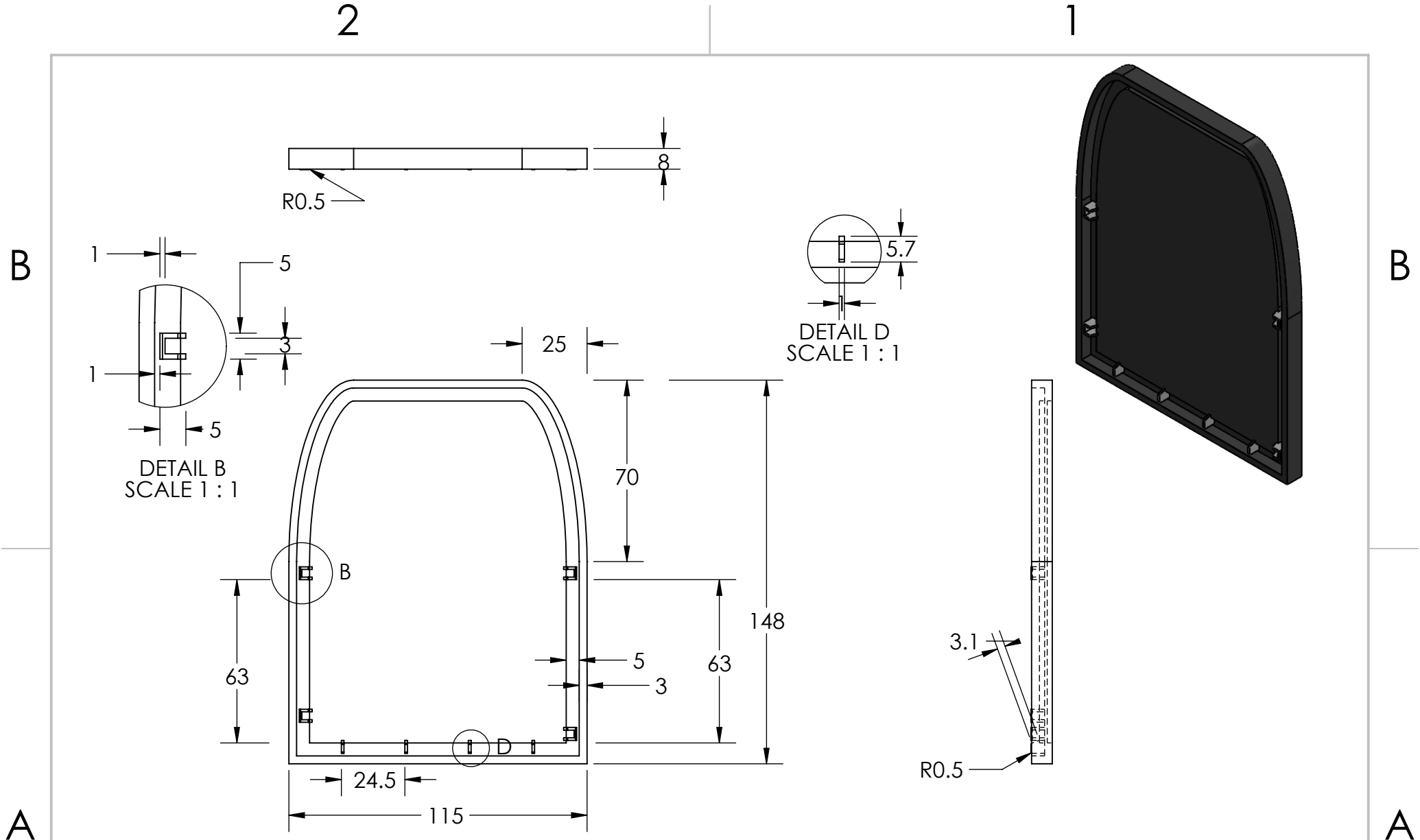
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Sec. View

2

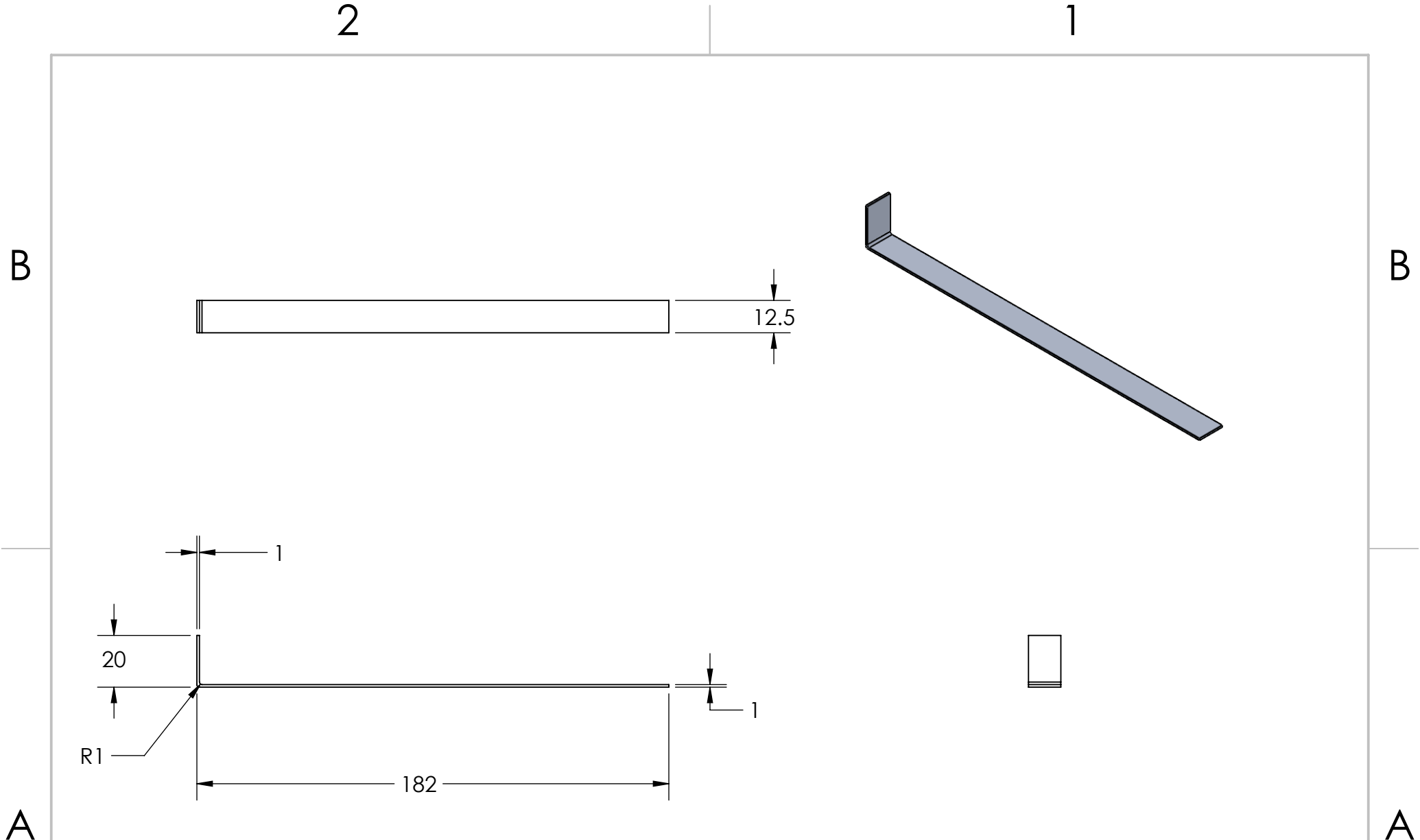
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Mechanical Engineering Department Worcester Polytechnic Institute	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. TOLERANCES ARE .X \pm .05 .XX \pm .01 ANGLES \pm 1° DIMENSIONING AND TOLERANCE IN ACCORDANCE WITH ASME Y14.5-2018	MATL 6061-T6 (SS)	TITLE: Base Plate	
		DRAWN BY: AR		
		DATE: 6/26/2025	SCALE: 1:2	DWG. NO. 16-A



Mechanical Engineering Department Worcester Polytechnic Institute	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. TOLERANCES ARE .X \pm .05 .XX \pm .01 ANGLES \pm 1° DIMENSIONING AND TOLERANCE IN ACCORDANCE WITH ASME Y14.5-2018	MATL SANTOPRENE	TITLE: Clipping Dish	
		DRAWN BY: AR		
		DATE: 6/25/2025	SCALE: 1:2	DWG. NO. 17-A



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DIMENSIONING AND TOLERANCE
IN ACCORDANCE WITH
ASME Y14.5-2018

MATL
6061-T6 (SS)

DRAWN BY:
AR

DATE:
6/26/2025

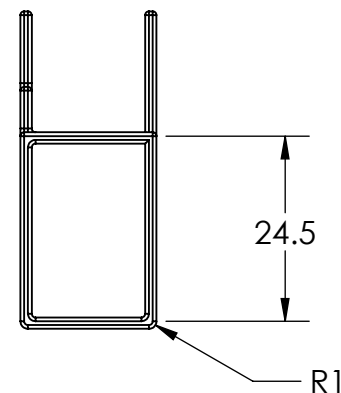
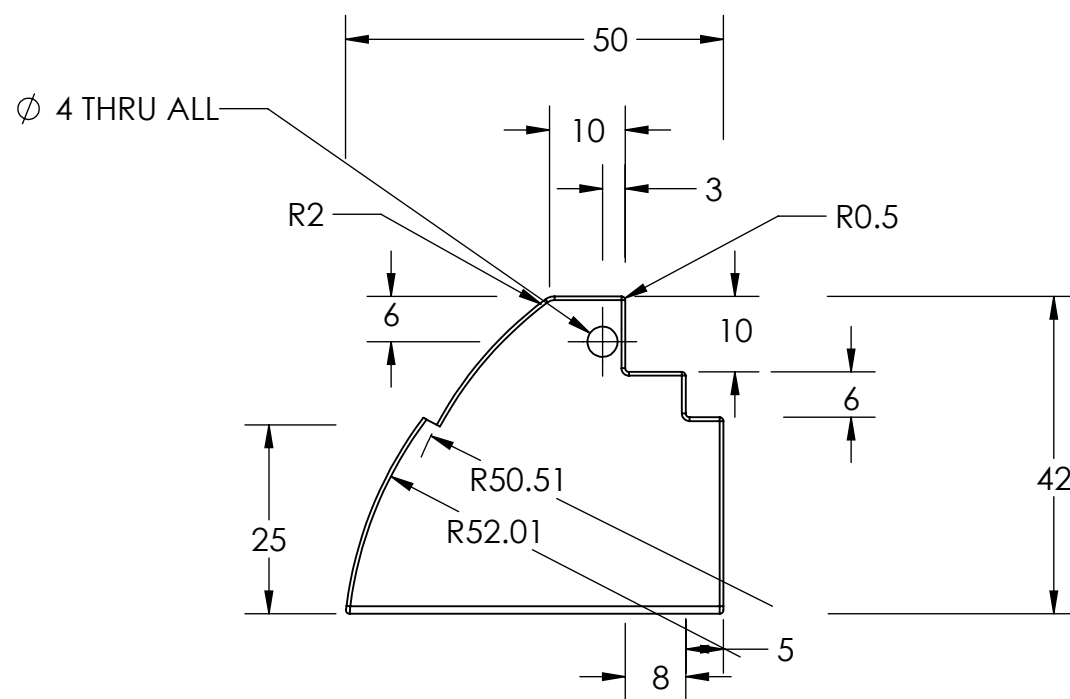
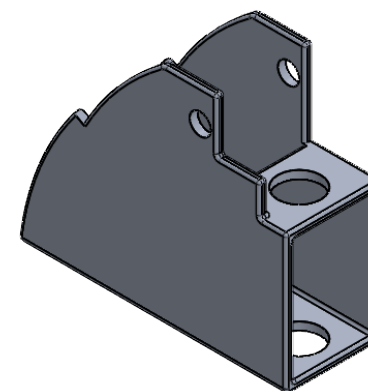
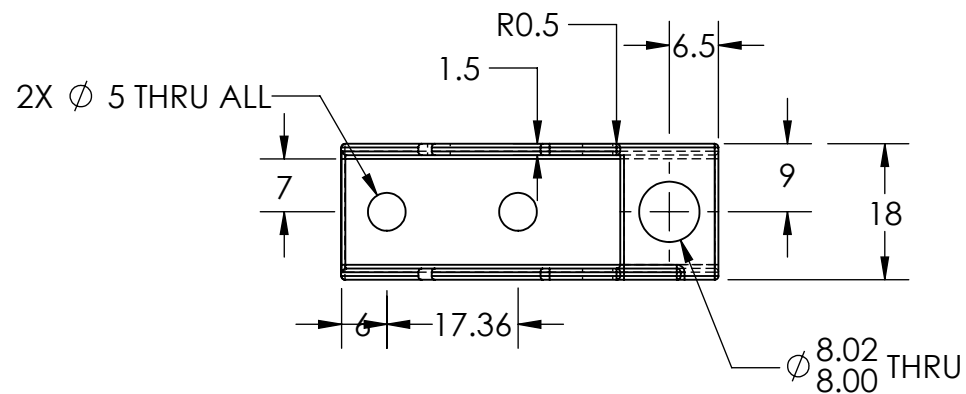
TITLE:
Ruler

SCALE: 1:2

DWG.
NO.
16-B

B

B



A

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UNLESS OTHERWISE SPECIFIED
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ARE IN MM. TOLERANCES ARE
.X \pm .05 .XX \pm .01 ANGLES \pm 1°
DIMENSIONING AND TOLERANCE
IN ACCORDANCE WITH
ASME Y14.5-2018

MATL

6063-T6

DRAWN BY:

AR

DATE:

6/26/2025

TITLE:

Mounting Bracket

SCALE: 1:1

DWG.
NO.

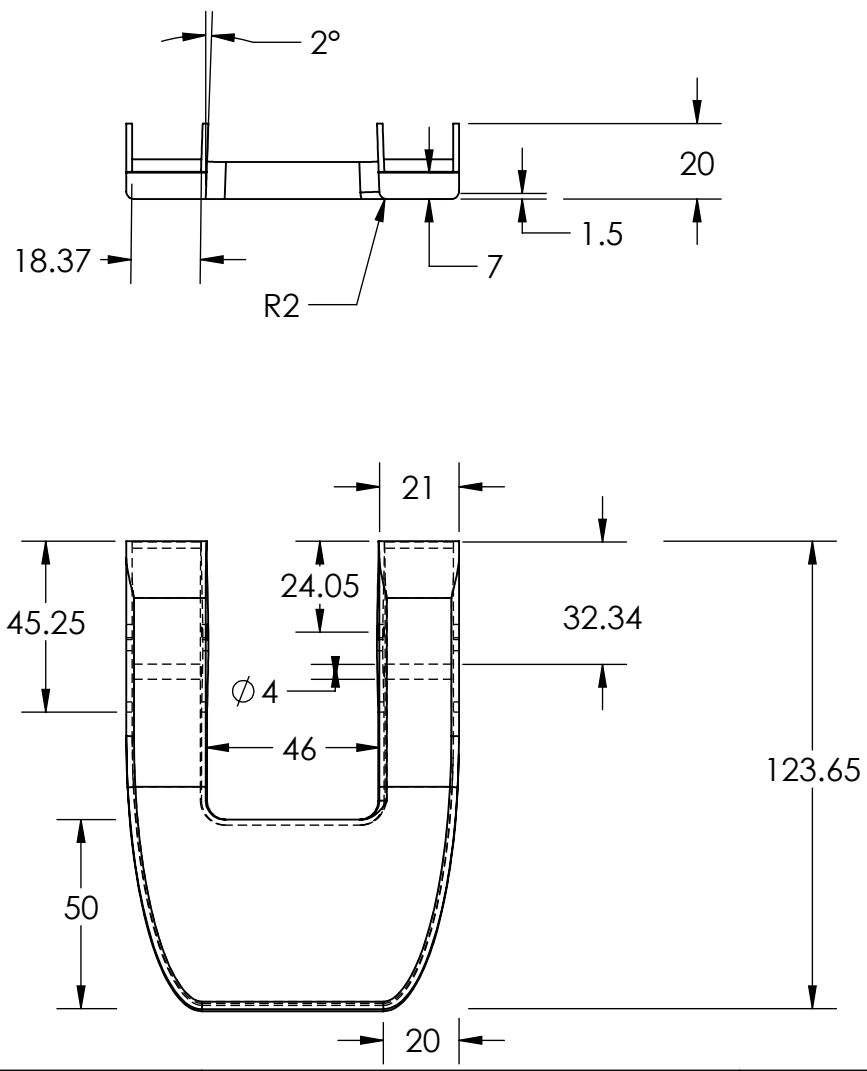
16-C

2

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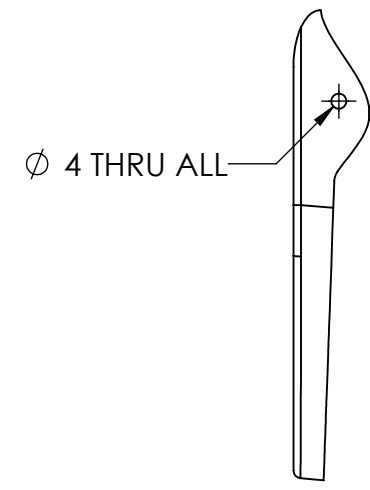
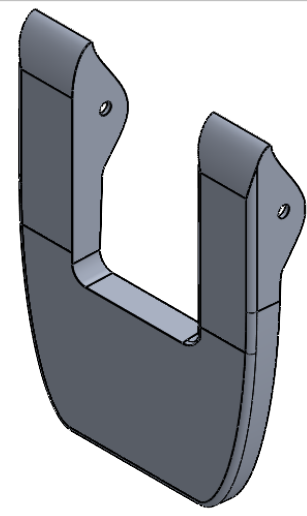
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A



1

1

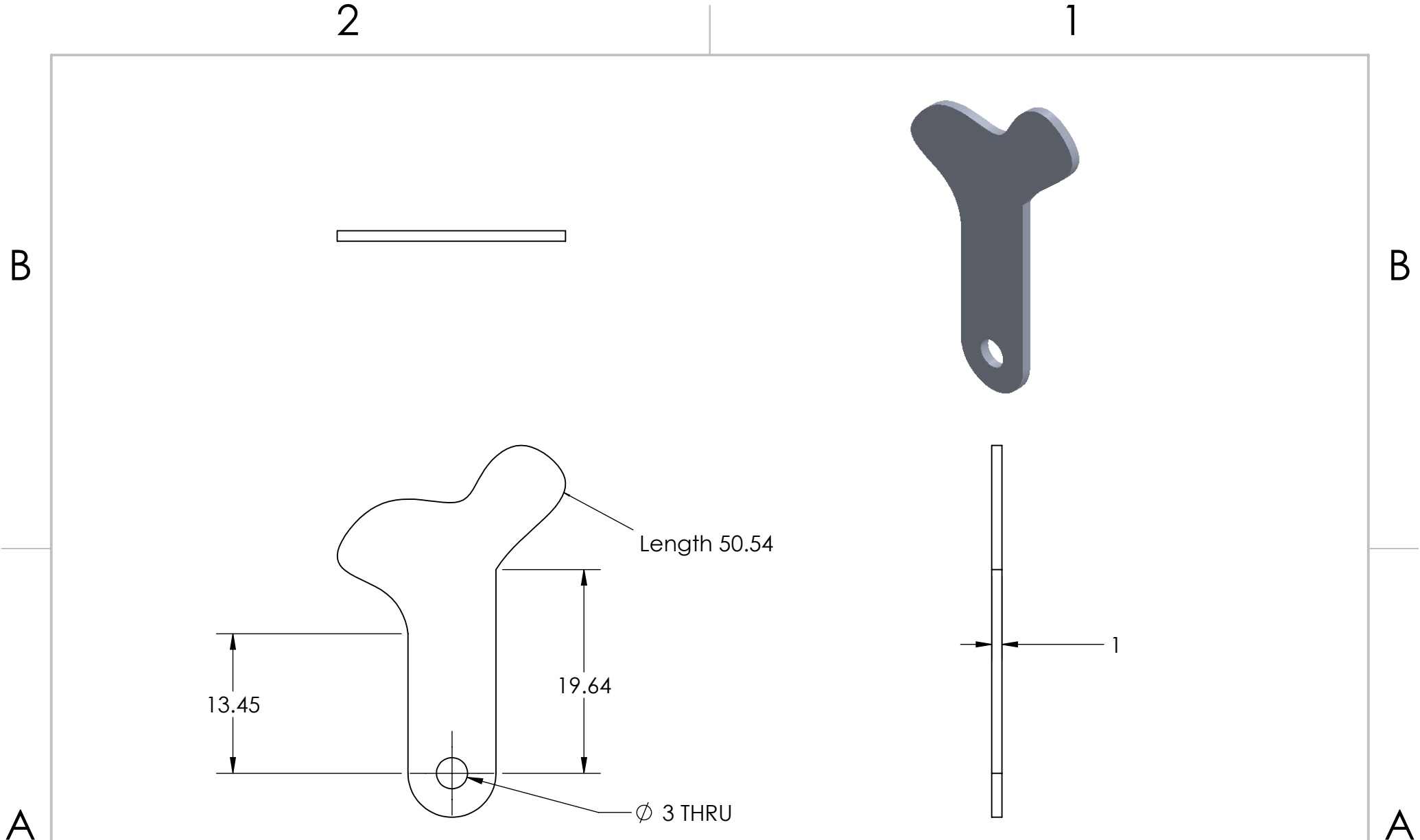


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Department
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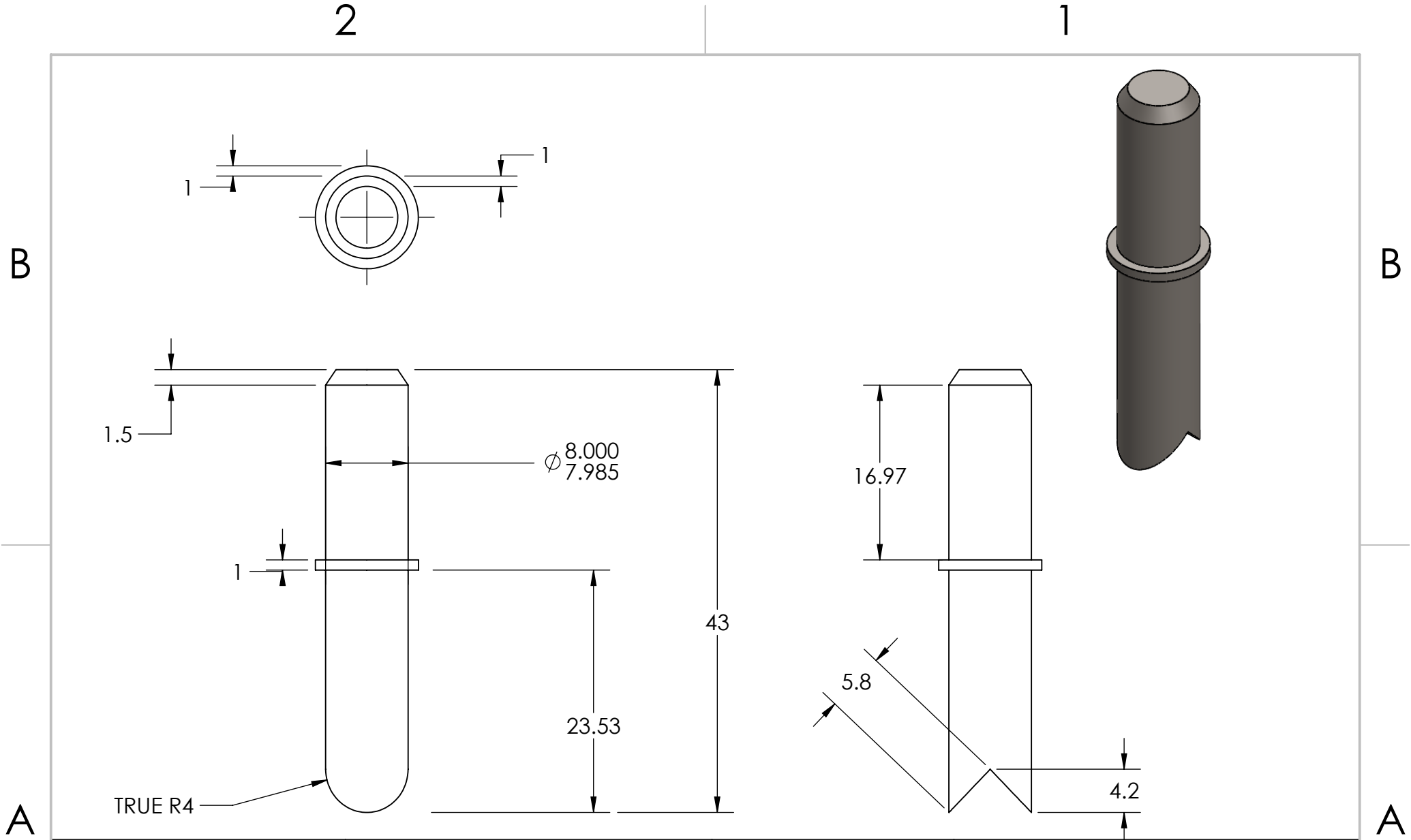
UNLESS OTHERWISE SPECIFIED
DIMENSIONS
ARE IN MM. TOLERANCES ARE
.X ± .05 .XX ± .01 ANGLES ± 1°
DIMENSIONING AND TOLERANCE
IN ACCORDANCE WITH
ASME Y14.5-2018

MATL	6061-T6 (SS)
DRAWN BY:	AR
DATE:	6/26/2025

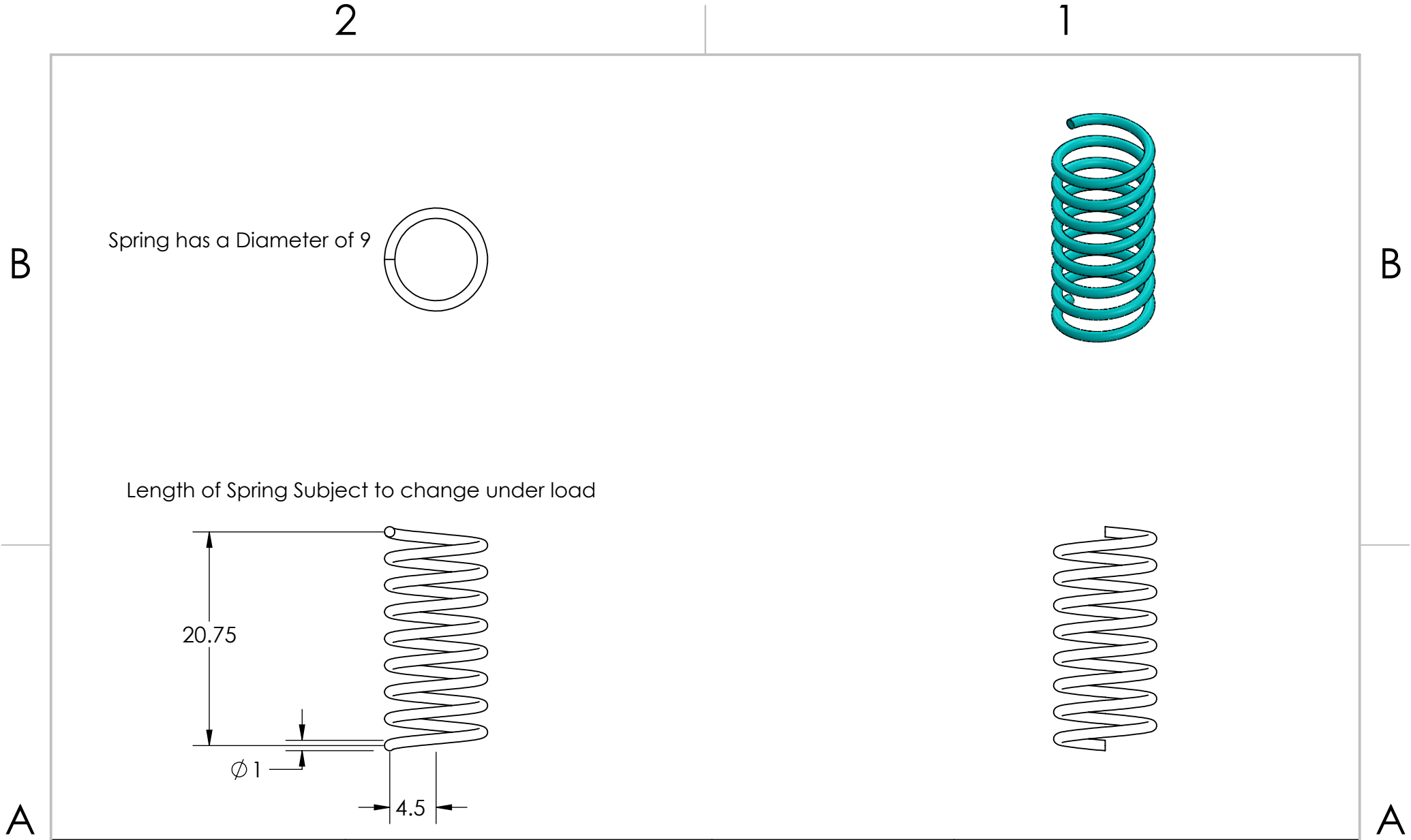
TITLE:	
Handle	
SCALE: 1:2	DWG. NO. 16-D



Mechanical Engineering Department Worcester Polytechnic Institute	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. TOLERANCES ARE .X ± .05 .XX ± .01 ANGLES ± 1° DIMENSIONING AND TOLERANCE IN ACCORDANCE WITH ASME Y14.5-2018	MATL 6061-T6 (SS)	TITLE: Safety Clip	
		DRAWN BY: AR		
		DATE: 6/26/2025	SCALE: 2:1	DWG. NO. 16-E



Mechanical Engineering Department Worcester Polytechnic Institute	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. TOLERANCES ARE .X \pm .05 .XX \pm .01 ANGLES \pm 1° DIMENSIONING AND TOLERANCE IN ACCORDANCE WITH ASME Y14.5-2018		MATL AISI Type A2 Tool Steel	TITLE: Cutting-Dowel	
			DRAWN BY: AR		
			DATE: 6/26/2025	SCALE: 2:1	DWG. NO. 18-A



Mechanical Engineering Department Worcester Polytechnic Institute	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM. TOLERANCES ARE .X ± .05 .XX ± .01 ANGLES ± 1° DIMENSIONING AND TOLERANCE IN ACCORDANCE WITH ASME Y14.5-2018	MATL Plain Carbon Steel	TITLE: Spring	
		DRAWN BY: AR		
		DATE: 6/26/2025	SCALE: 2:1	DWG. NO. 18-B