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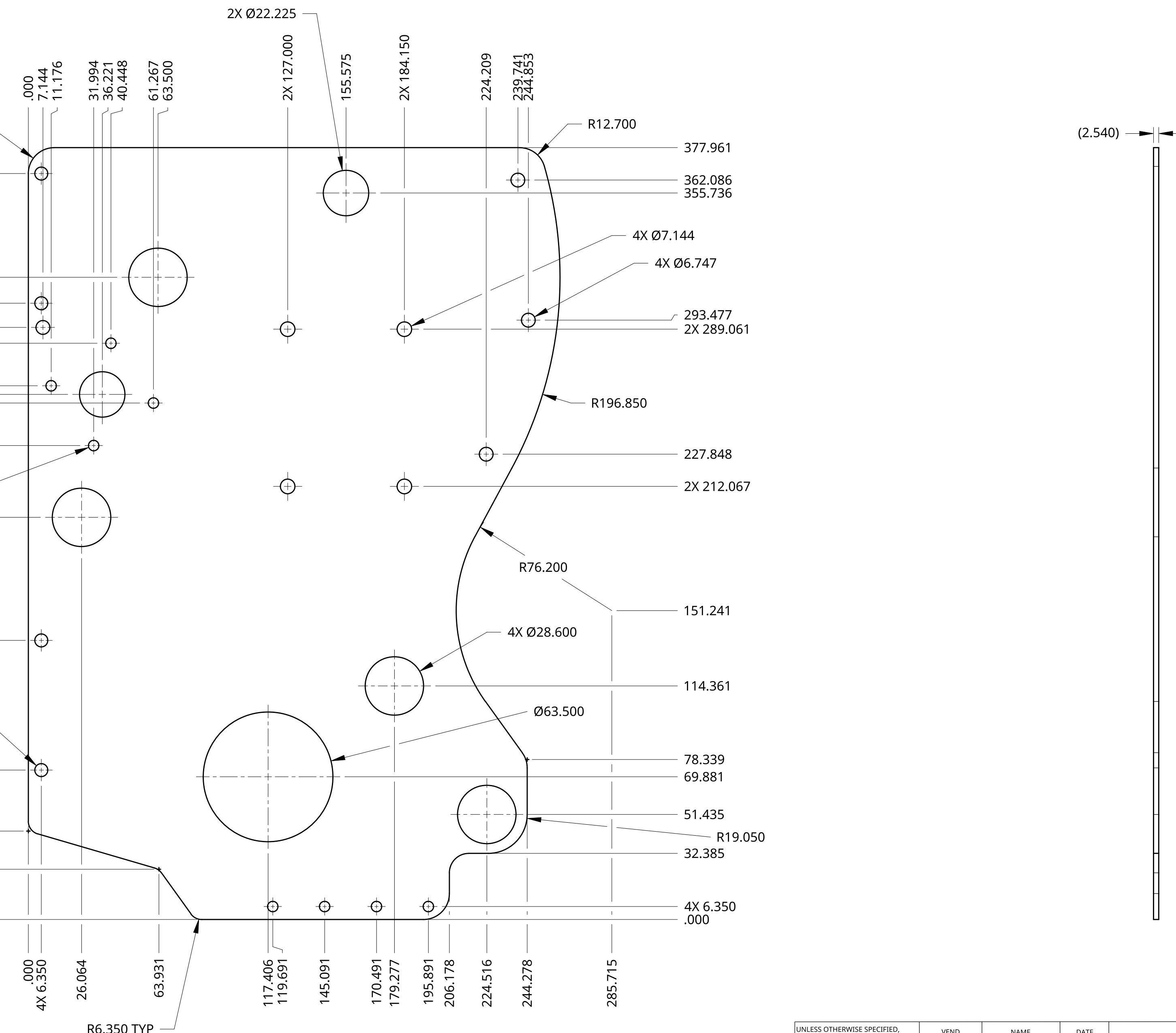
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UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN MILLIMETERS
.XX = $\pm .25$ ANGULAR $\pm 1^\circ$
.XXX = $\pm .13$

DO NOT SCALE DRAWING

BREAK ALL SHARP EDGES AND
REMOVE BURRS

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

.100" 5052

ALUMINUM PLATE

FIRST[®] ROBOTICS
COMPETITION

SIDE PLATE

SIZE C DWG NO.

KB-26001

REV.

SCALE 2:3

SHEET 1 of 1

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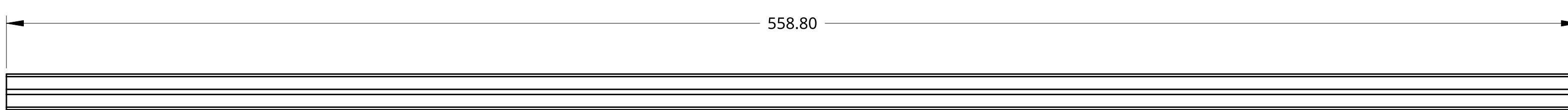
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|--|--|--|--|---------------------------------|------------|----------|--|
| DRAWN | | | | JO | 12/10/2025 | MATERIAL | |
| DO NOT SCALE DRAWING | | | | STEEL ROUNDED 1/2" HEX SHAFT | | | TITLE |
| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | | | | | |
| PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FIRST®. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF FIRST® IS PROHIBITED. | | | | SIZE | DWG NO. | REV. | ROLLER SHAFT |
| | | | | C | KB-26002 | | |
| SCALE | | | | 3:4 | SHEET | 1 of 1 | |

4

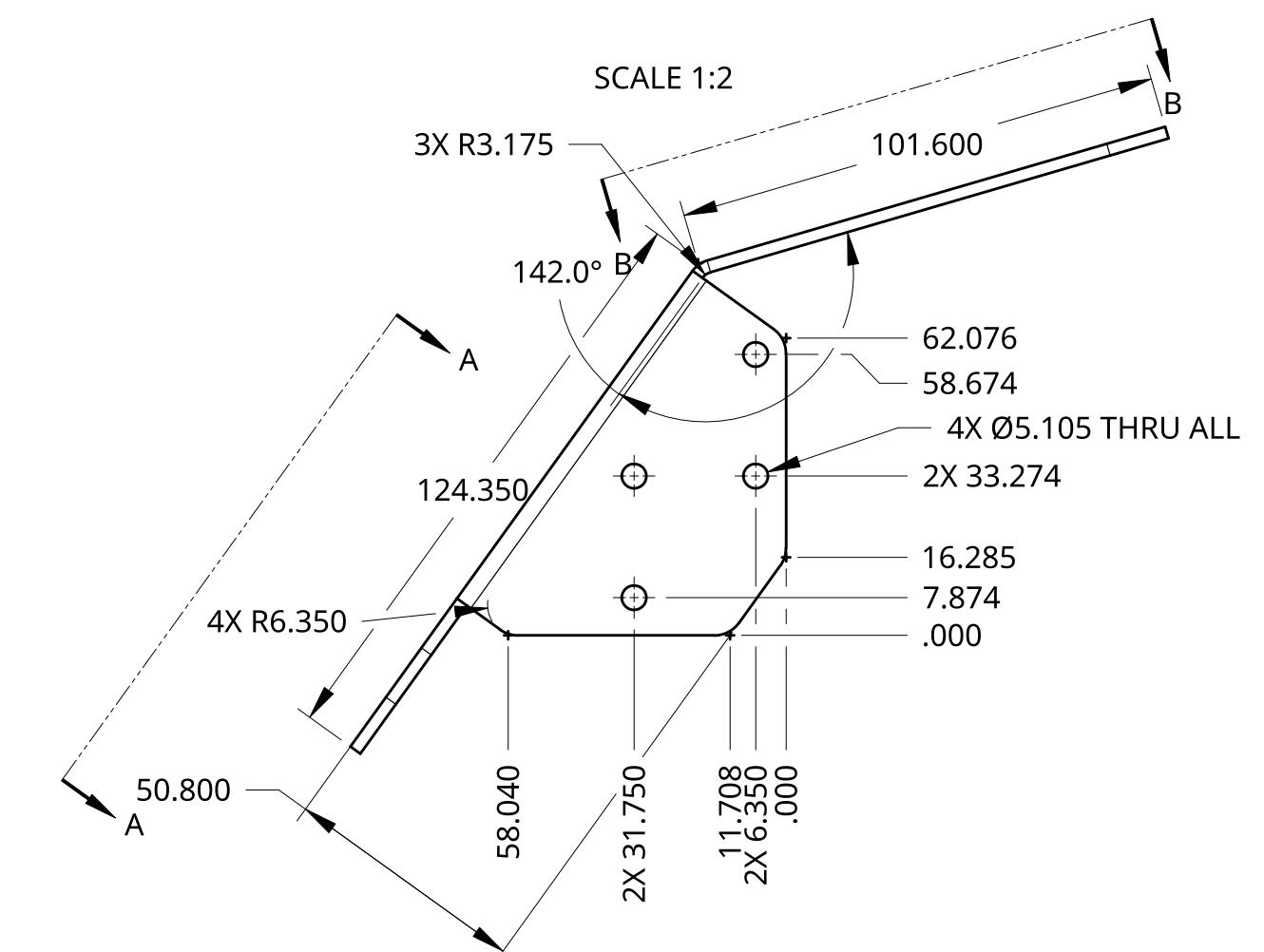
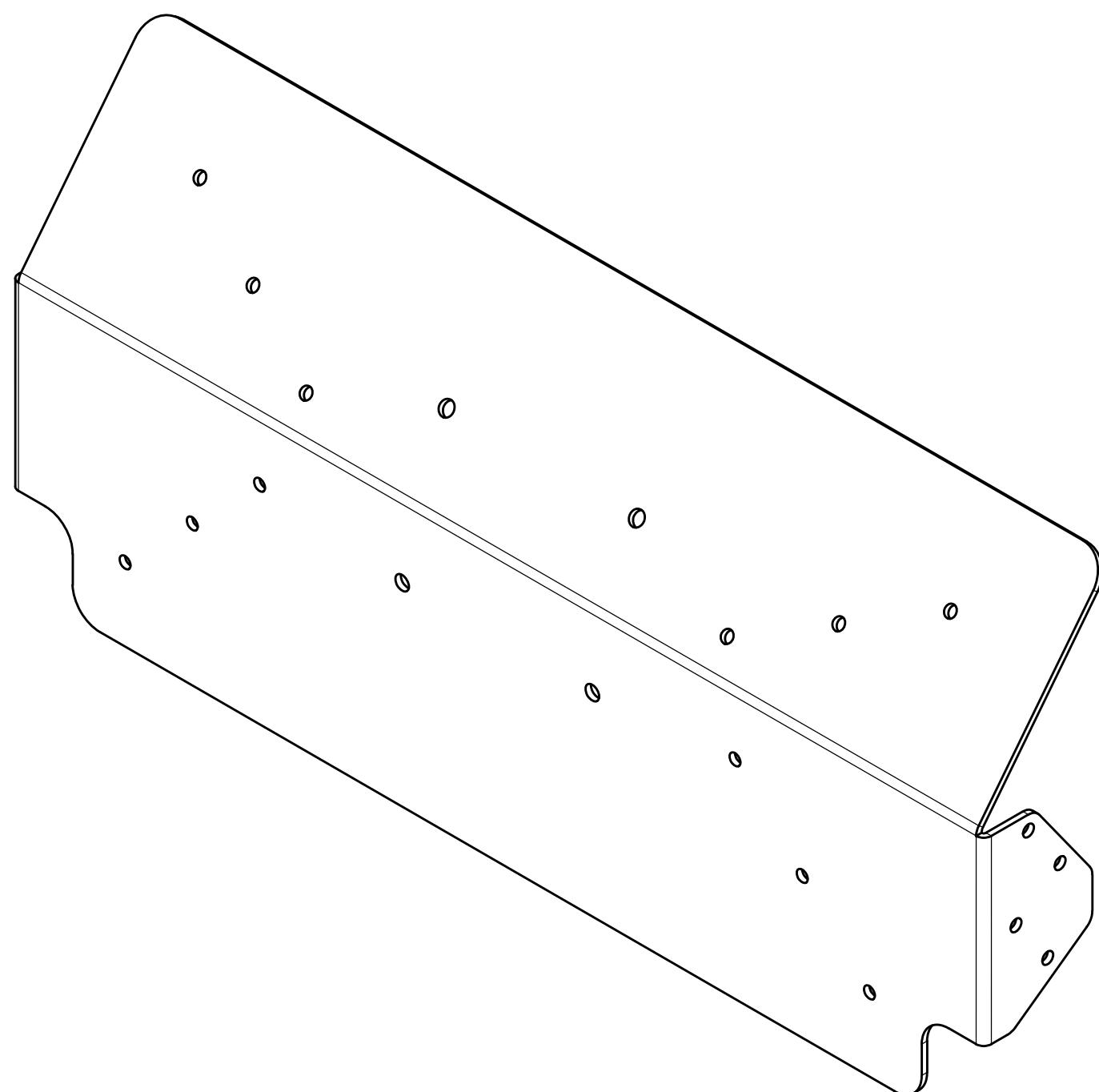
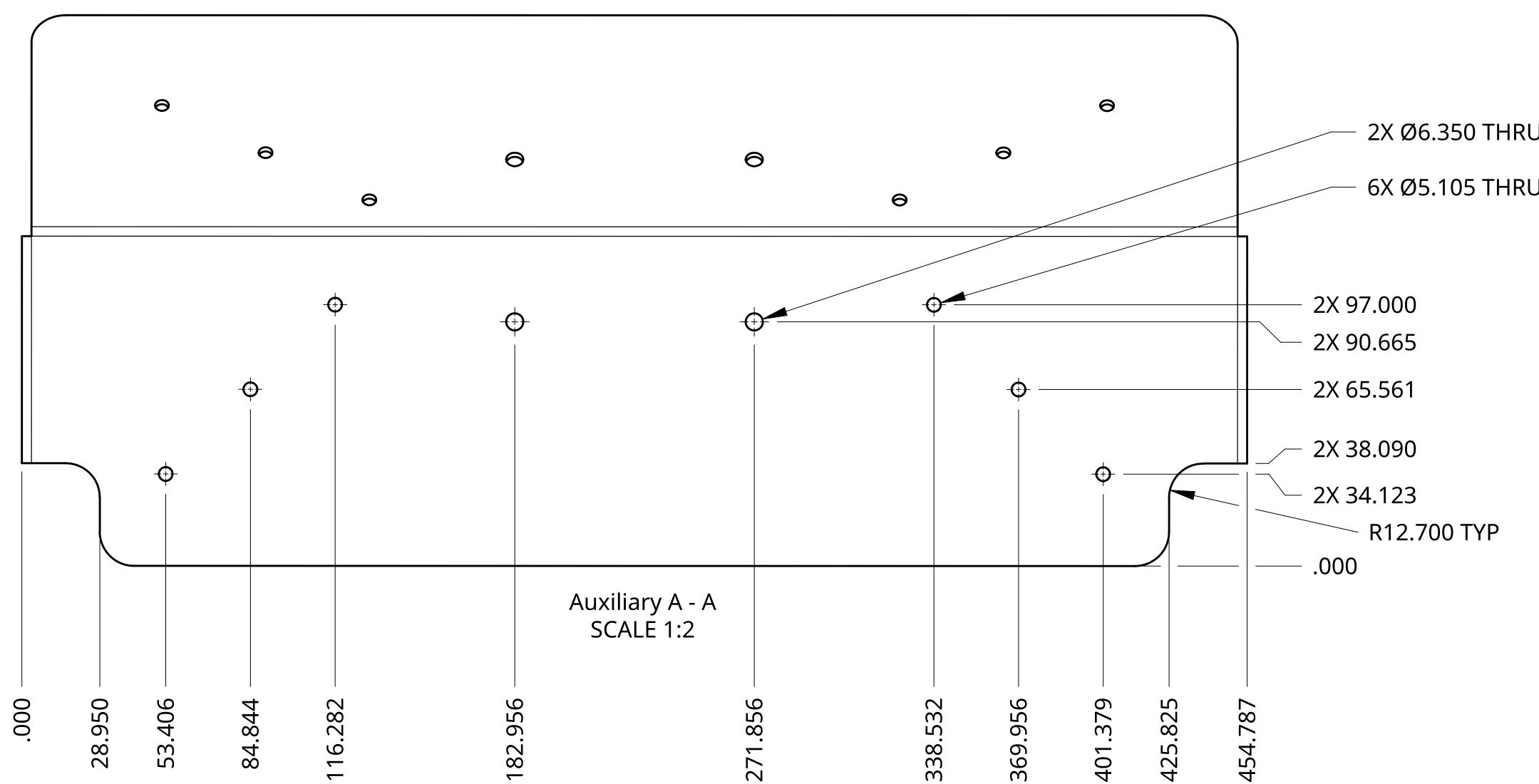
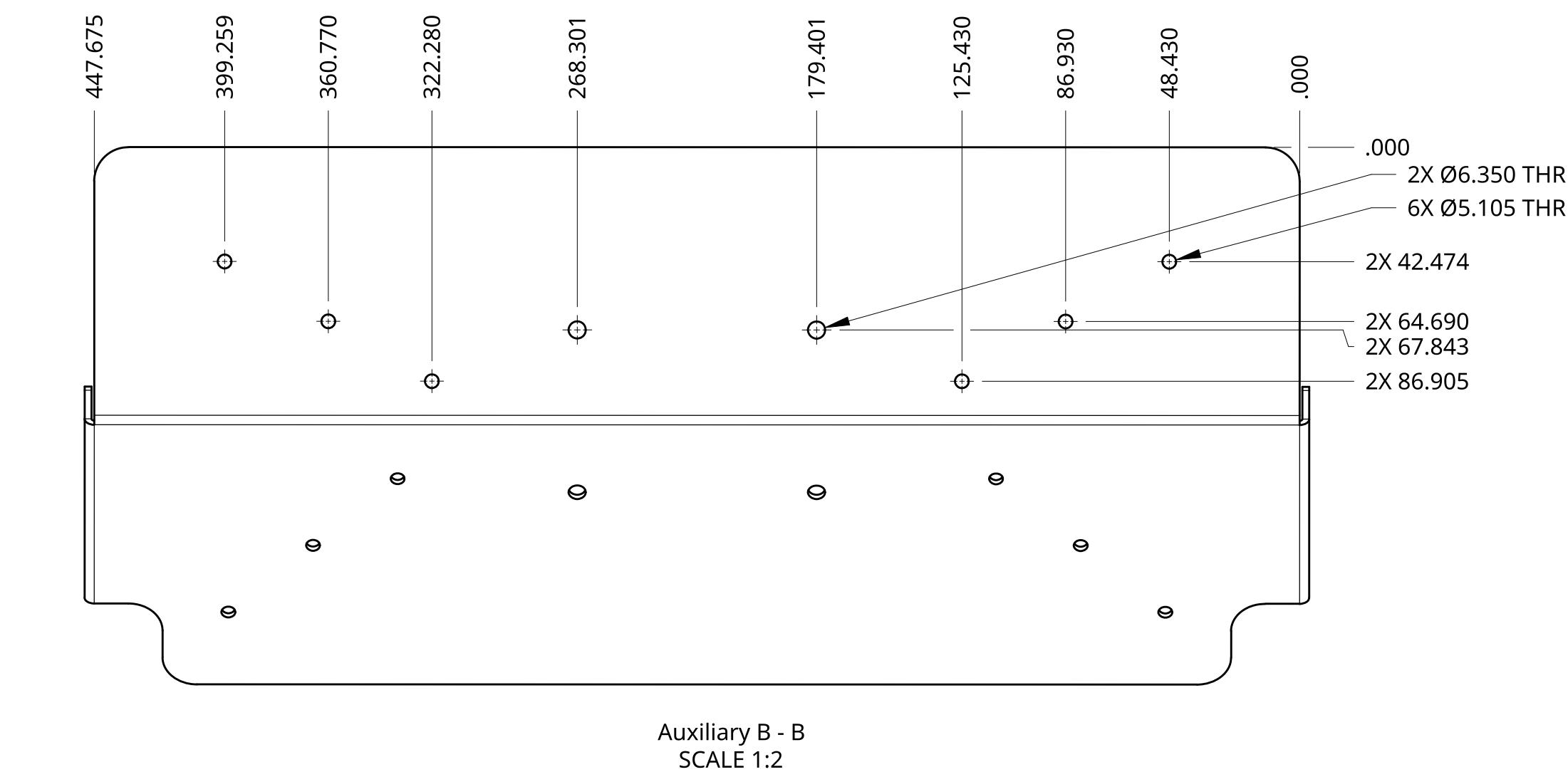
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.XX = ±.25 ANGULAR ± 1°
.XXX = ±.13

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

.100" 5052

ALUMINUM PLATE

FIRST
ROBOTICS
COMPETITION

INTAKE BASEPLATE

SIZE C DWG NO.

KB-26003

REV.

SCALE 1:4

SHEET 1 of 1

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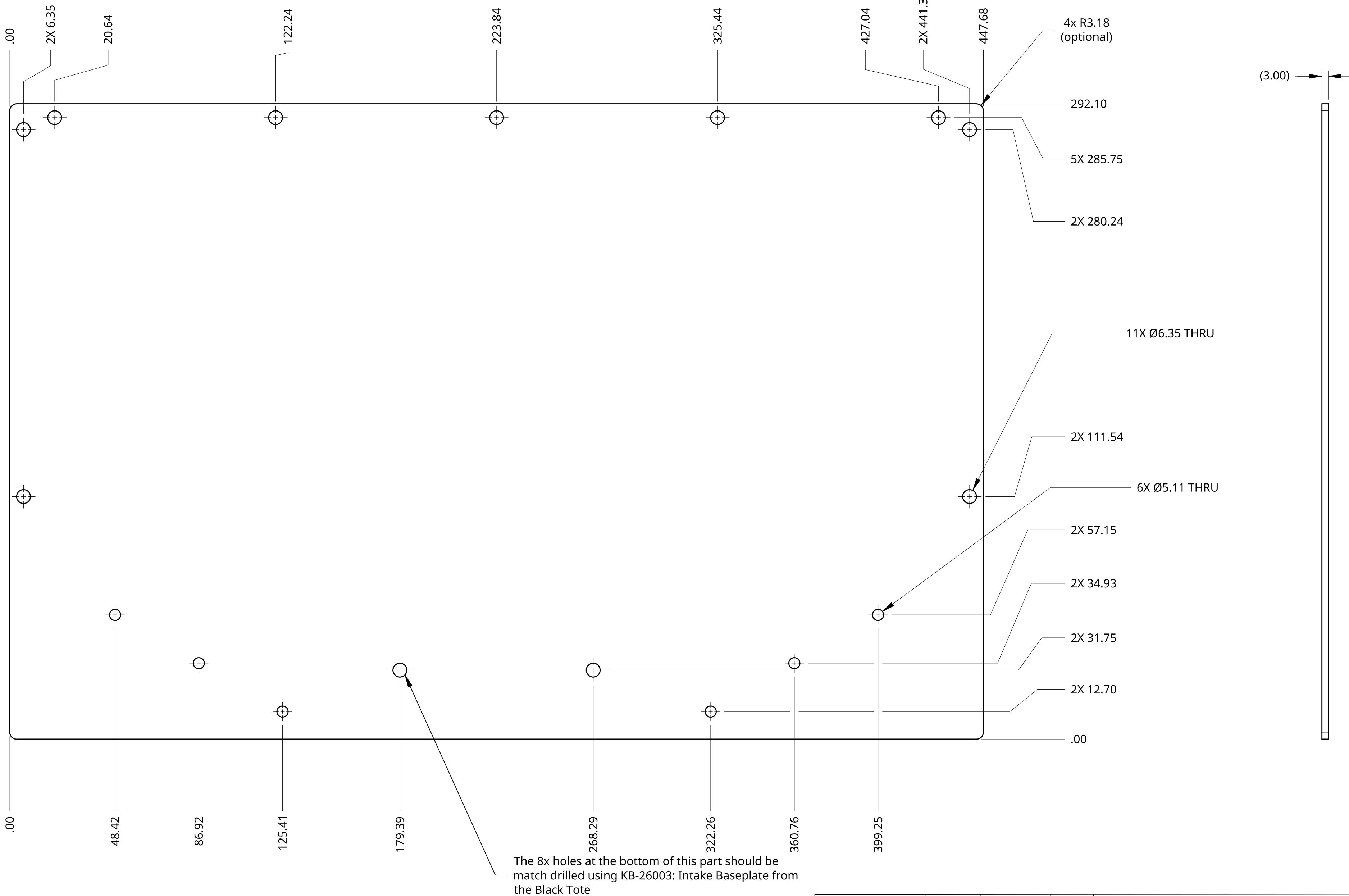
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|--|---------------------------------|------|------------|--|
| | DRAWN | JO | 12/10/2025 | |
| DO NOT SCALE DRAWING | .118" POLYCARBONATE SHEET | | | TITLE BOTTOM HOPPER PANEL SIZE C DWG NO. KB-26004 REV. 4:5 SHEET 1 of 1 |
| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | | |
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.00
12.70

79.38

146.05

212.73

221.90

381.00
4X 374.65

6.35

212.73

6.35

50.80

6.35

4X 6.35

304.80

.00

10X Ø6.35 THRU

333.21

.00
12.70

76.20

241.30

4x R3.18
(optional)

(3.00)

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UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN MILLIMETERS.XX = ±.25 ANGULAR ± 1°
.XXX = ±.13

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BREAK ALL SHARP EDGES AND
REMOVE BURRSPROPRIETARY AND CONFIDENTIAL
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VEND NAME DATE

DRAWN JO 12/10/2025

MATERIAL

.118"

POLYCARBONATE

SHEET

FIRST
ROBOTICS
COMPETITION

SIDE HOPPER PANEL

KB-26005

REV.

SIZE C DWG NO.

SCALE 3:4

SHEET 1 of 1

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8X Ø6.35 THRU

.00

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4X 6.35

.00

2X 12.70

2X 79.38

2X 146.05

2X 212.73

2X 222.25

4X 441.33

447.68

4x R3.18
(optional)

(3.00)

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UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN MILLIMETERS
.XX = ±.25 ANGULAR ± 1°
.XXX = ±.13

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VEND NAME DATE

DRAWN JO 12/10/2025

MATERIAL

.118"

POLYCARBONATE

SHEET

FIRST
ROBOTICS
COMPETITION

BACK HOPPER PANEL

KB-26006

REV.

SIZE C DWG NO.

SCALE 4:5

SHEET 1 of 1

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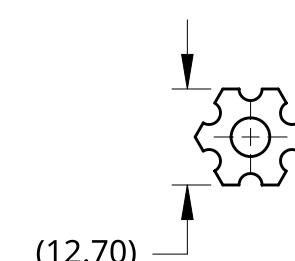
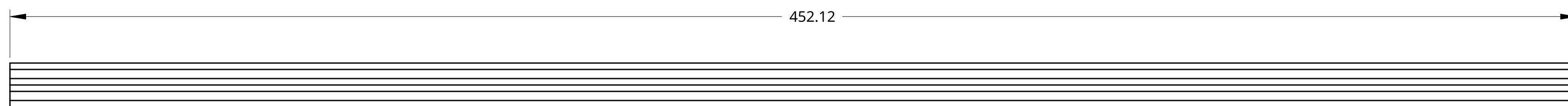
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452.12

| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS | | | | VEND | NAME | DATE |  FIRST ROBOTICS COMPETITION |
|--|--------------|------------|-------------|----------|---------------|------------|--|
| .XX = ±.25 | ANGULAR ± 1° | XXX = ±.13 | XXXX = ±.03 | | | | |
| DO NOT SCALE DRAWING | | | | DRAWN | JO | 12/10/2025 | |
| | | | | MATERIAL | ANDYMARK 1/2" | TITLE | BRACE SHAFT |
| | | | | | CHURRO | | |
| | | | | | EXTRUSION | | |
| | | | | SIZE | DWG NO. | | |
| | | | | C | KB-26007 | REV. | |
| | | | | SCALE | 1:1 | SHEET | 1 of 1 |

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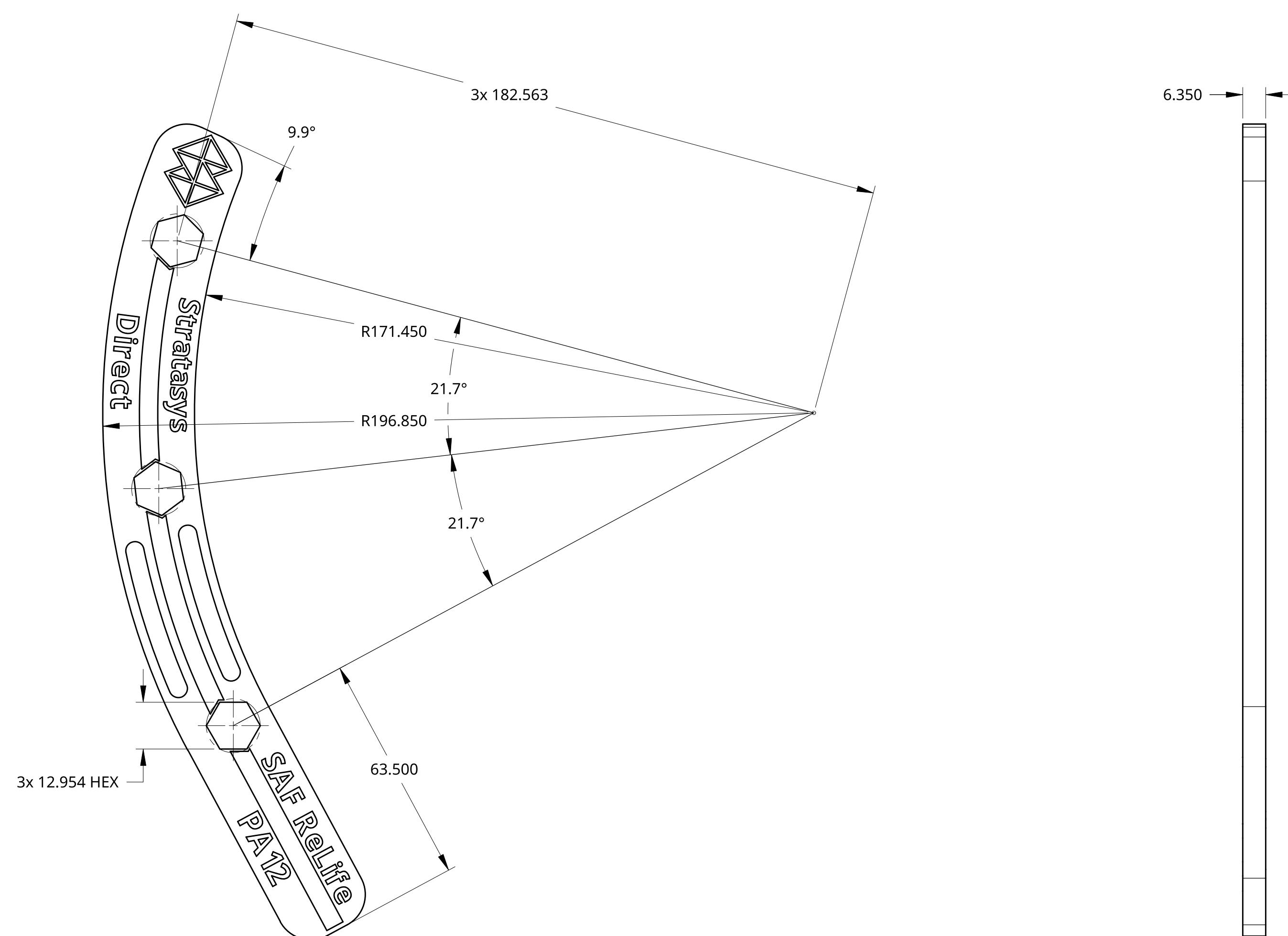
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DIMENSIONS ARE IN MILLIMETERS
.XX = ±.25 ANGULAR ± 1°
.XXX = ±.13

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VEND NAME DATE

DRAWN JO 12/10/2025

MATERIAL

PA12 NYLON



HOOD

KB-26008

REV. 1:1 SHEET 1 of 1

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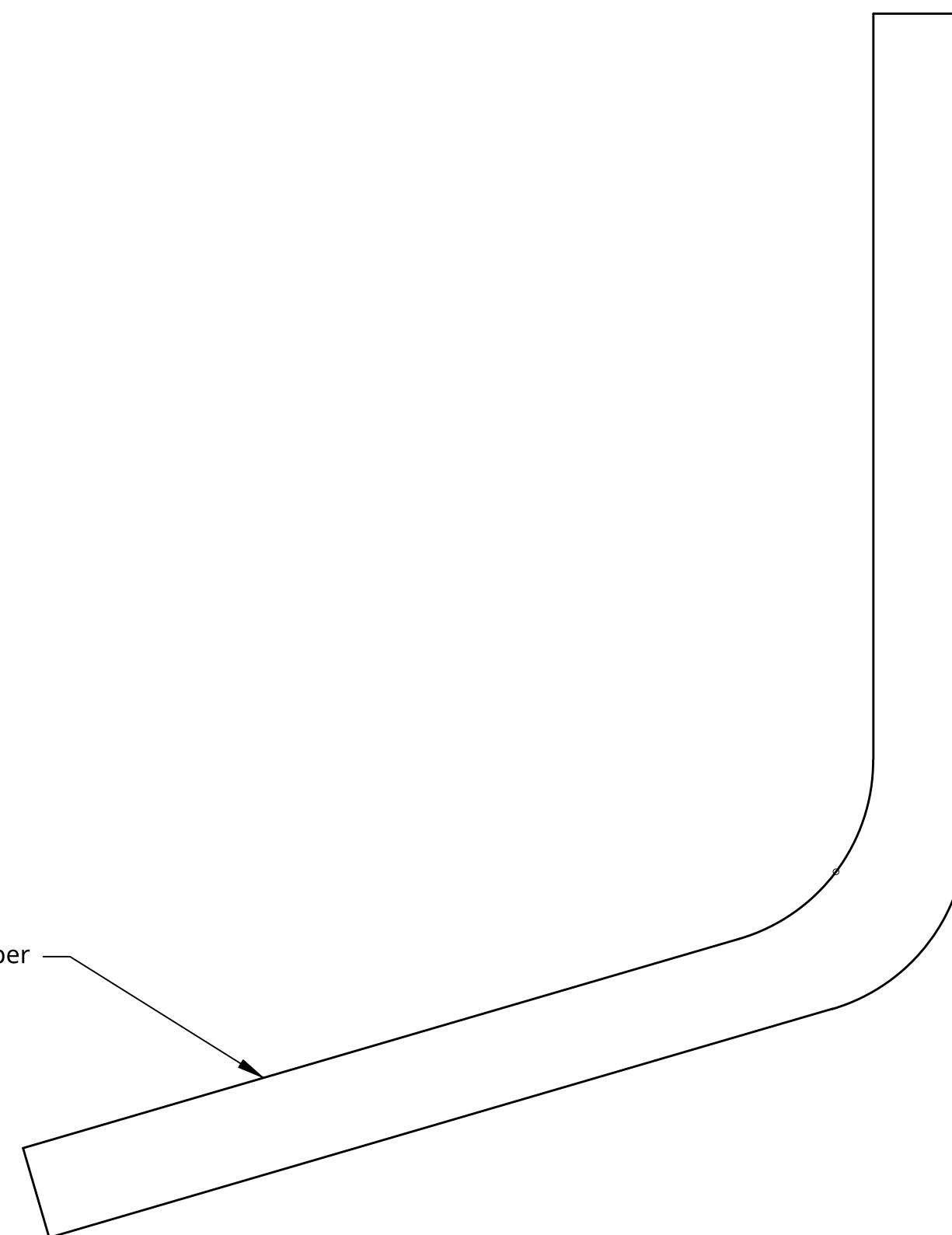
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At least 50mm of Dual Lock per strip wrapped around the corner of the Hopper



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.XXX = ±.13

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

DUAL LOCK

FIRST
ROBOTICS
COMPETITION

TITLE

PANEL LOCK

SIZE DWG NO.

KB-26009

REV.

SCALE

5:1

SHEET 1 of 1

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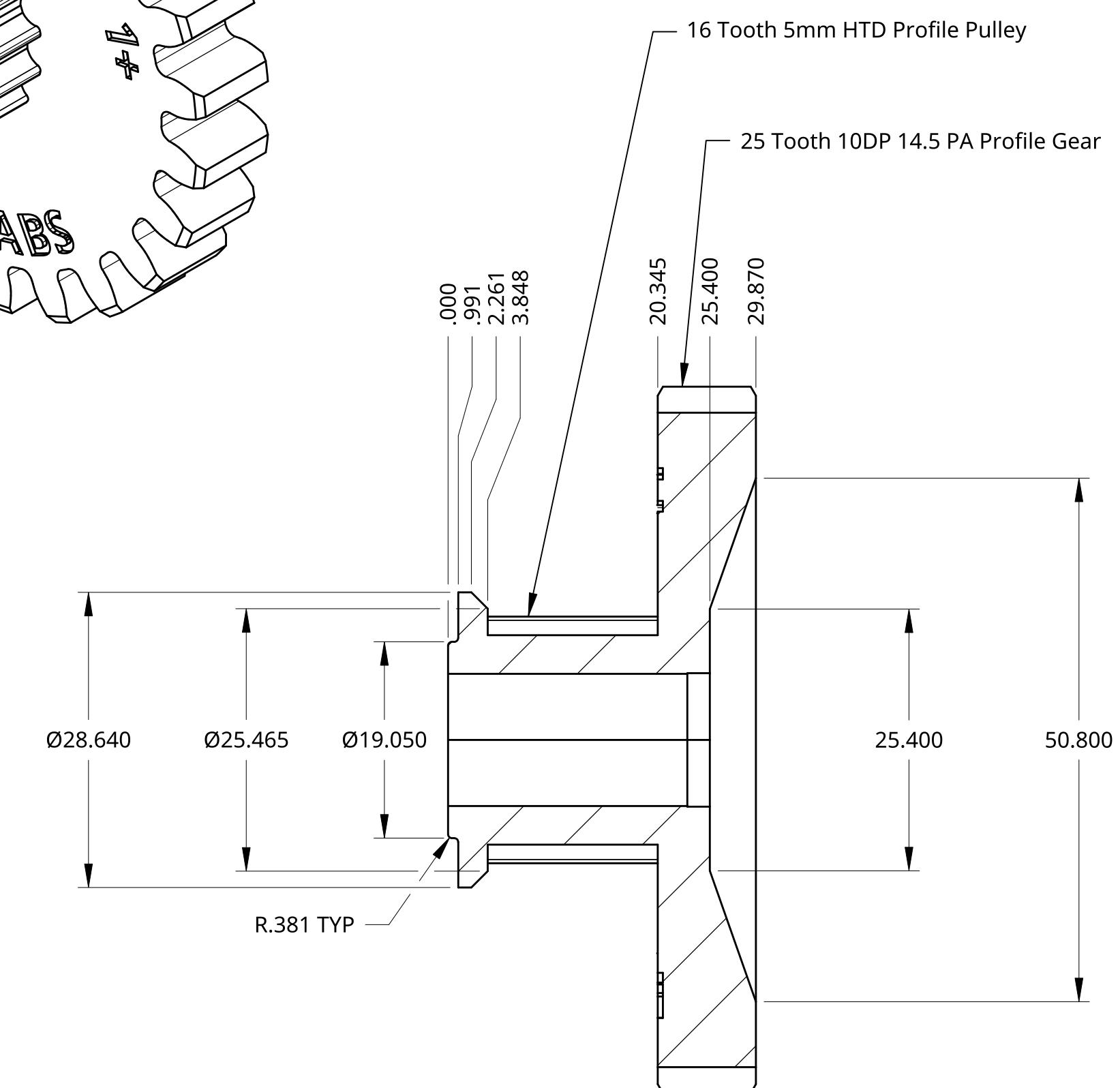
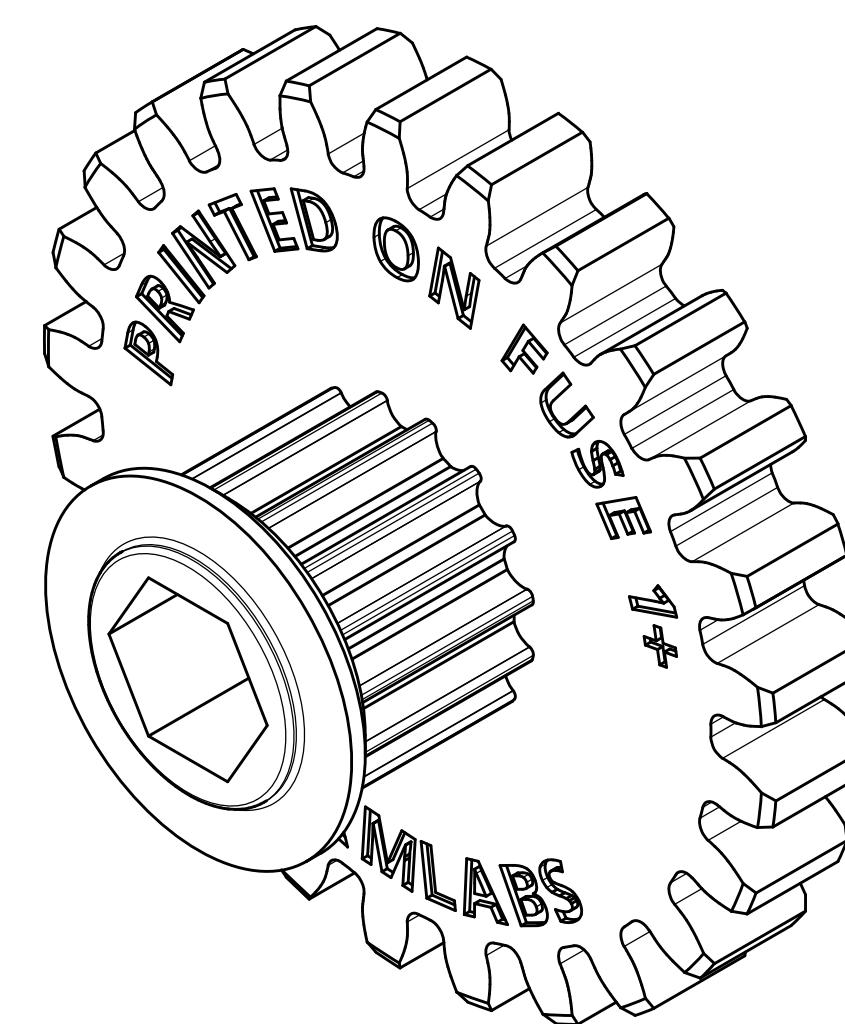
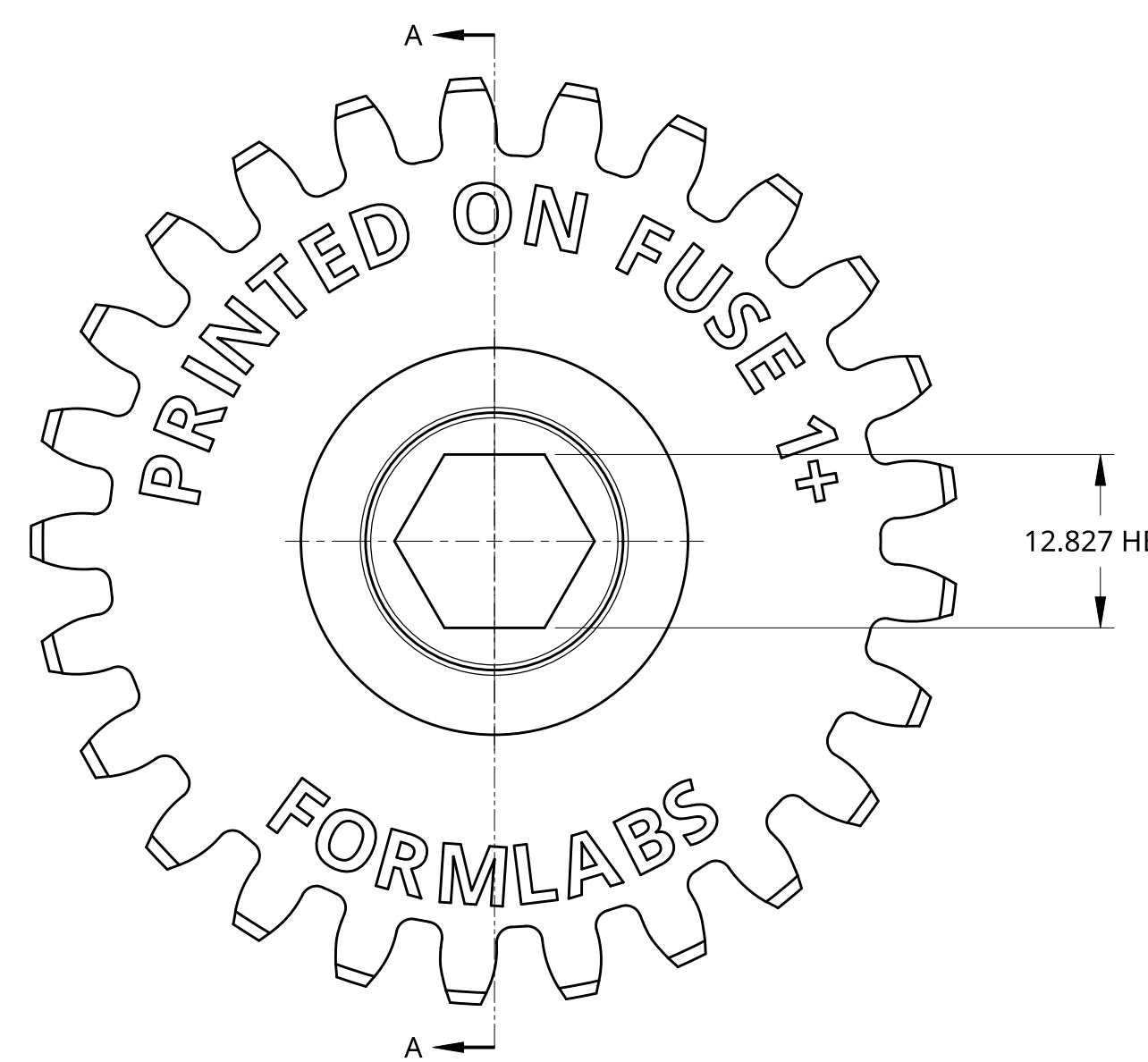
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SECTION A - A

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.XXX = ±.13

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| | | |
|-------|------|------------|
| VEND | NAME | DATE |
| DRAWN | JO | 12/10/2025 |

MATERIAL

NYLON 3D PRINT

TITLE



LAUNCHER GEARPULLEY

| | | |
|-------|----------|--------|
| SIZE | DWG NO. | REV. |
| C | KB-26010 | |
| SCALE | 2:1 | SHEET |
| | | 1 of 1 |

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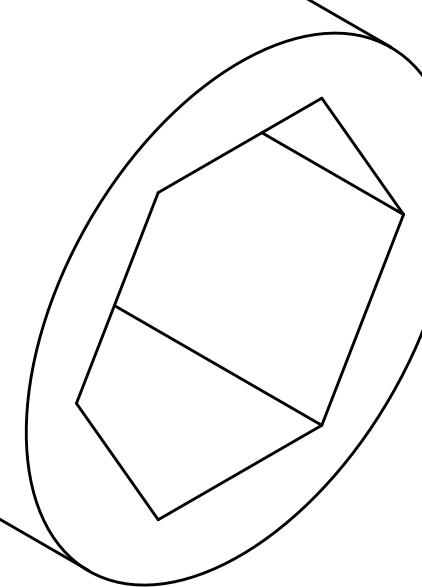
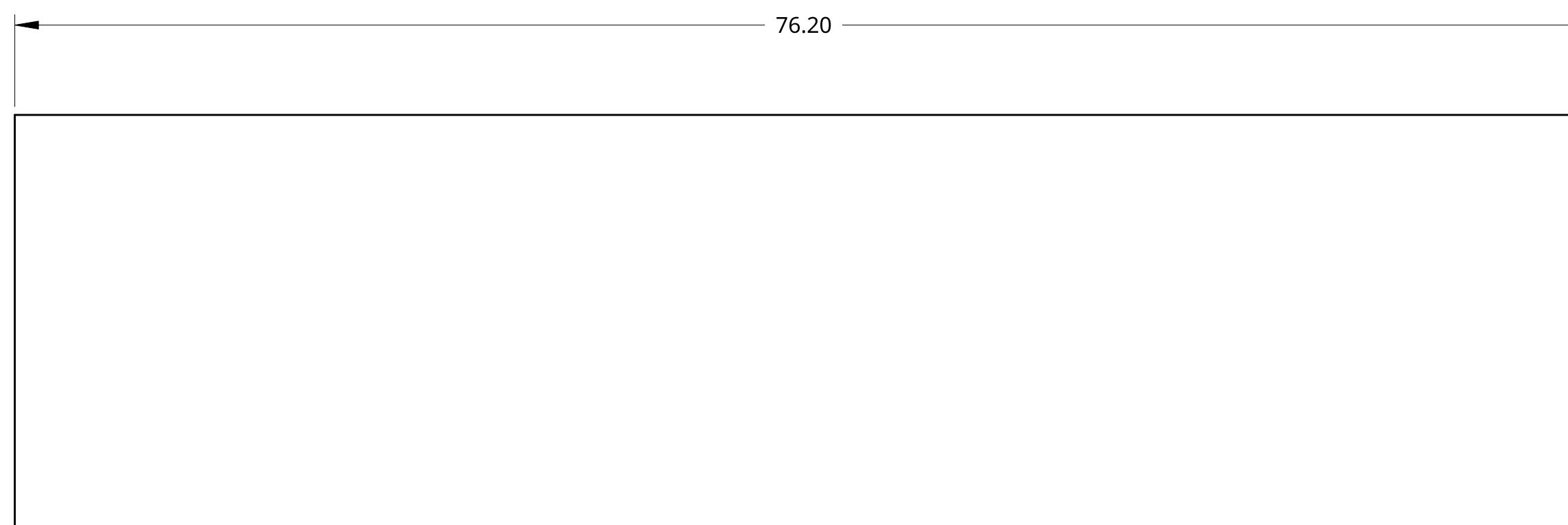
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.XX = $\pm .25$ ANGULAR $\pm 1^\circ$
.XXX = $\pm .13$

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

PLA 3D PRINTED,
PVC, OR MADE
FROM COTS
SPACERS

SIZE C

DWG NO.

REV.

KB-26011

SCALE

4:1

SHEET

1 of 1



INTAKE SHAFT LONG SPACER

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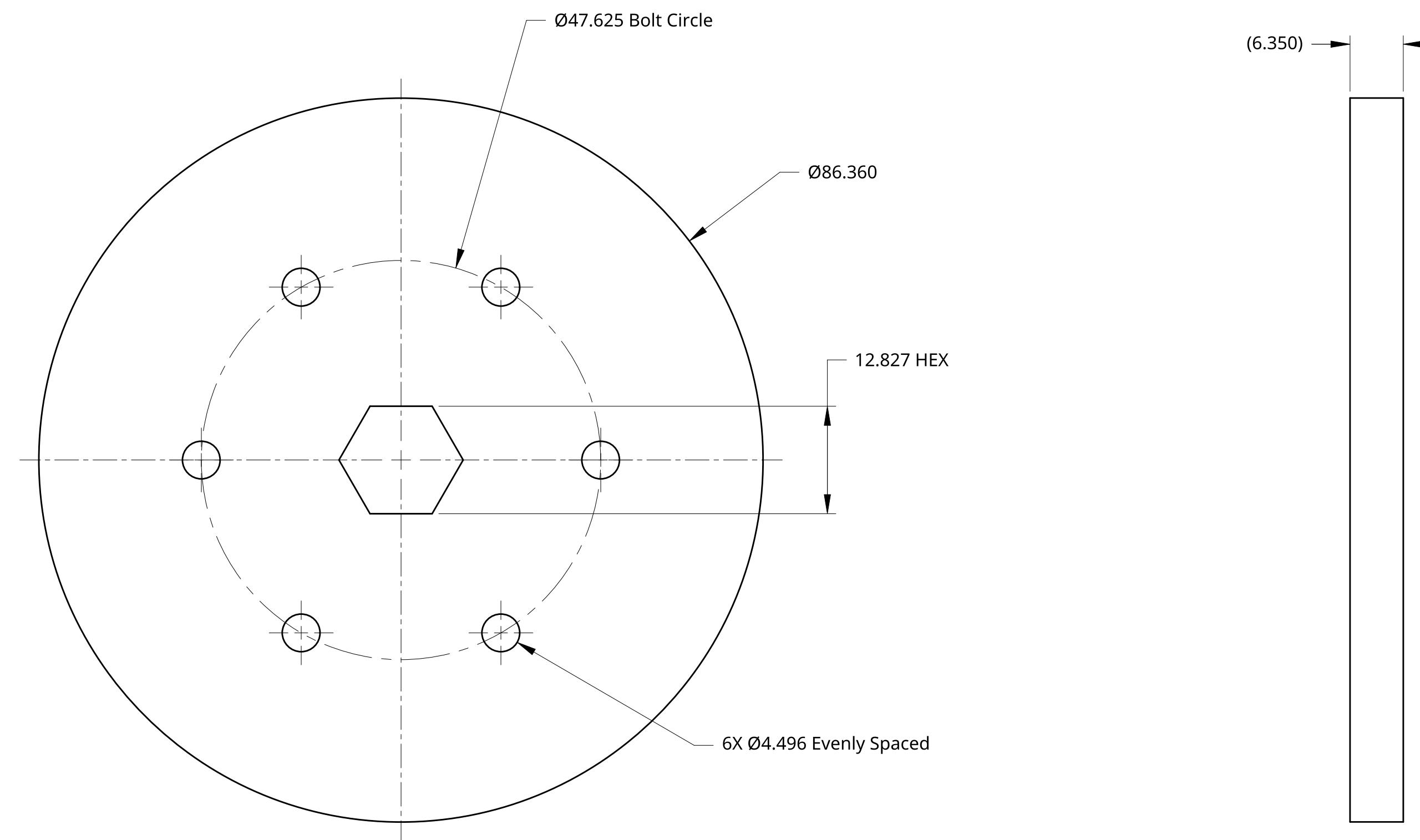
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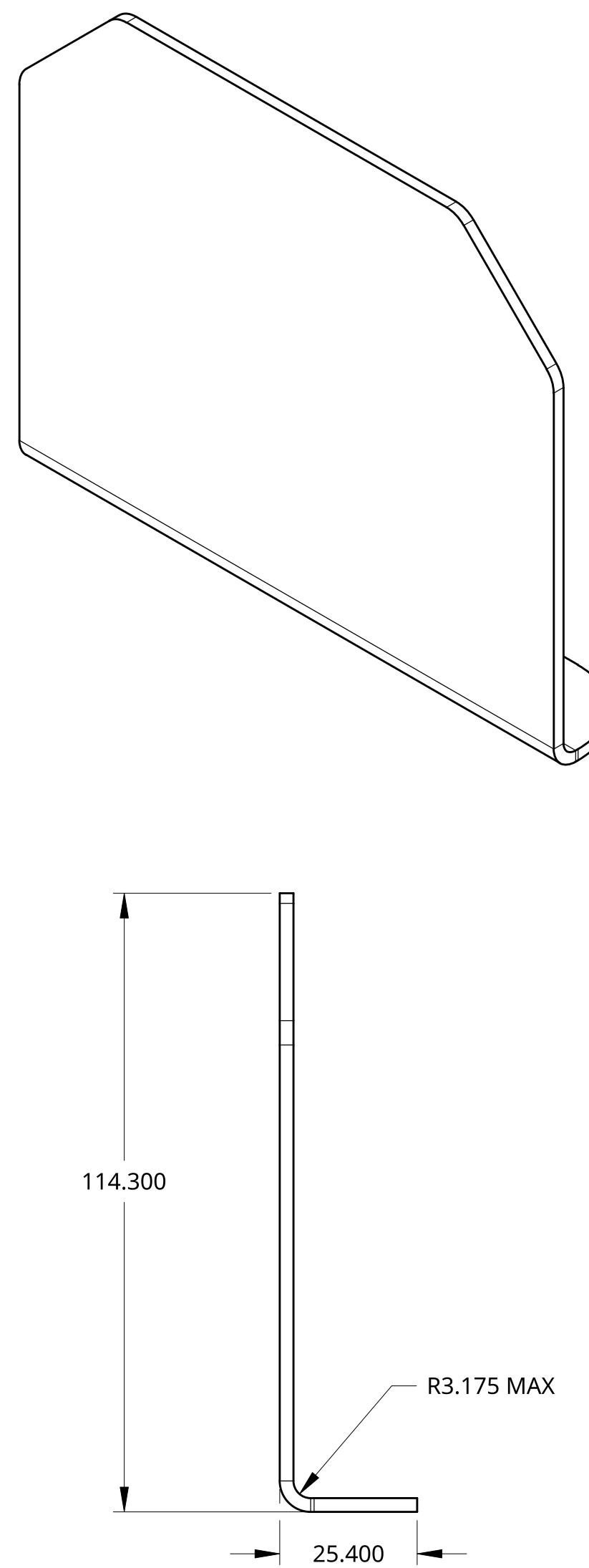
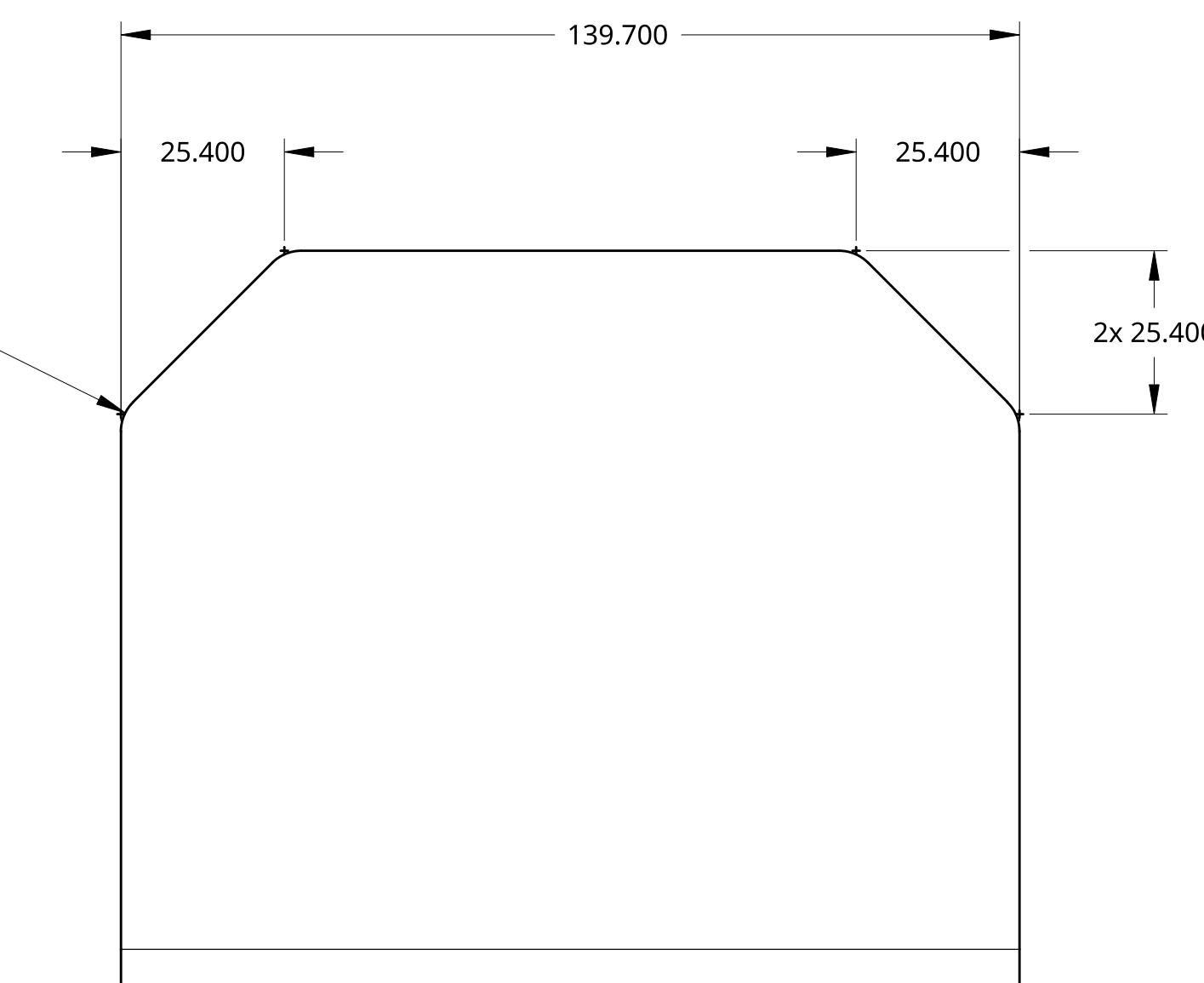
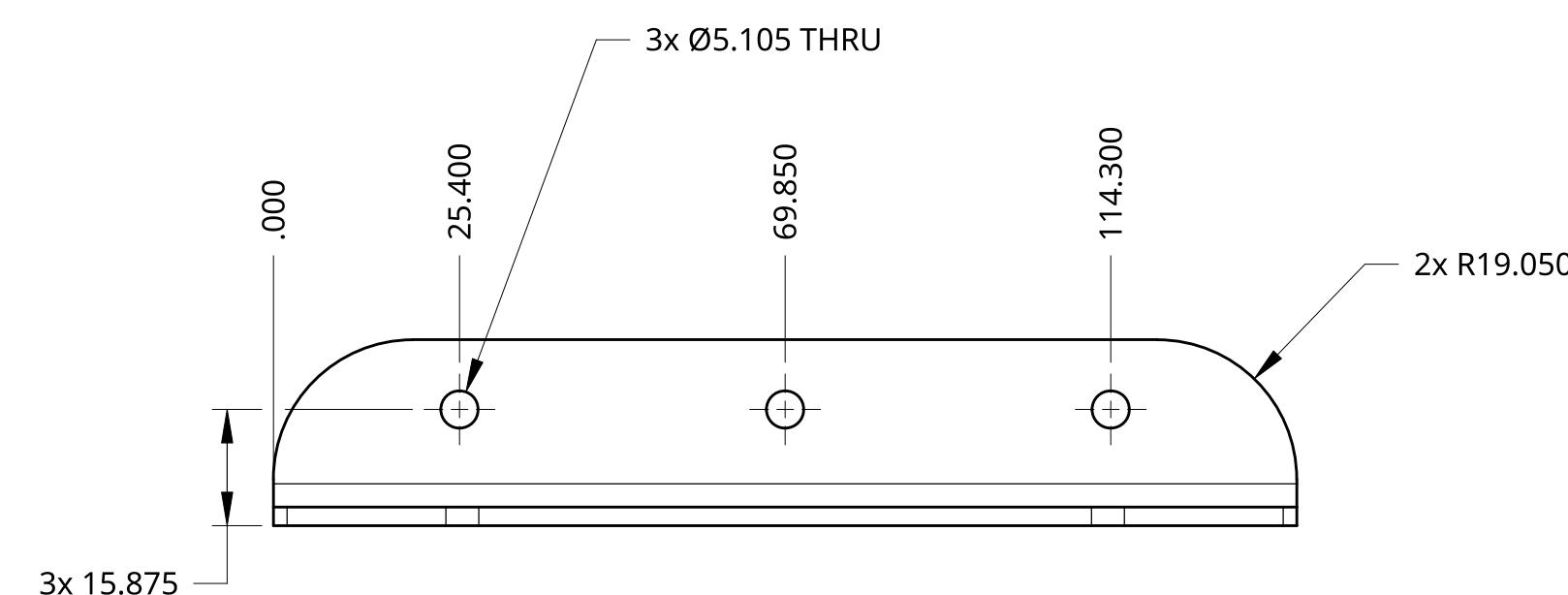
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|--|----------------|------------|-------------|----------|-------------------|---------|----------------------------------|--|--|
| XX = ±.25 | ANGULAR = ± 1° | XXX = ±.13 | XXXX = ±.03 | | | | | | |
| DO NOT SCALE DRAWING | | | | MATERIAL | TITLE | | | | |
| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | | | LAUNCHER FLYWHEEL | | | | |
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| C | KB-26012 | | | | SCALE | 1:1 | SHEET 1 of 1 | | |

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.XXX = $\pm .13$

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

.100" 5052
ALUMINUM PLATE

SIZE C DWG NO.

SCALE 1:1

SHEET 1 of 1

 FIRST
ROBOTICS
COMPETITION

INTAKE GUIDE

KB-26013

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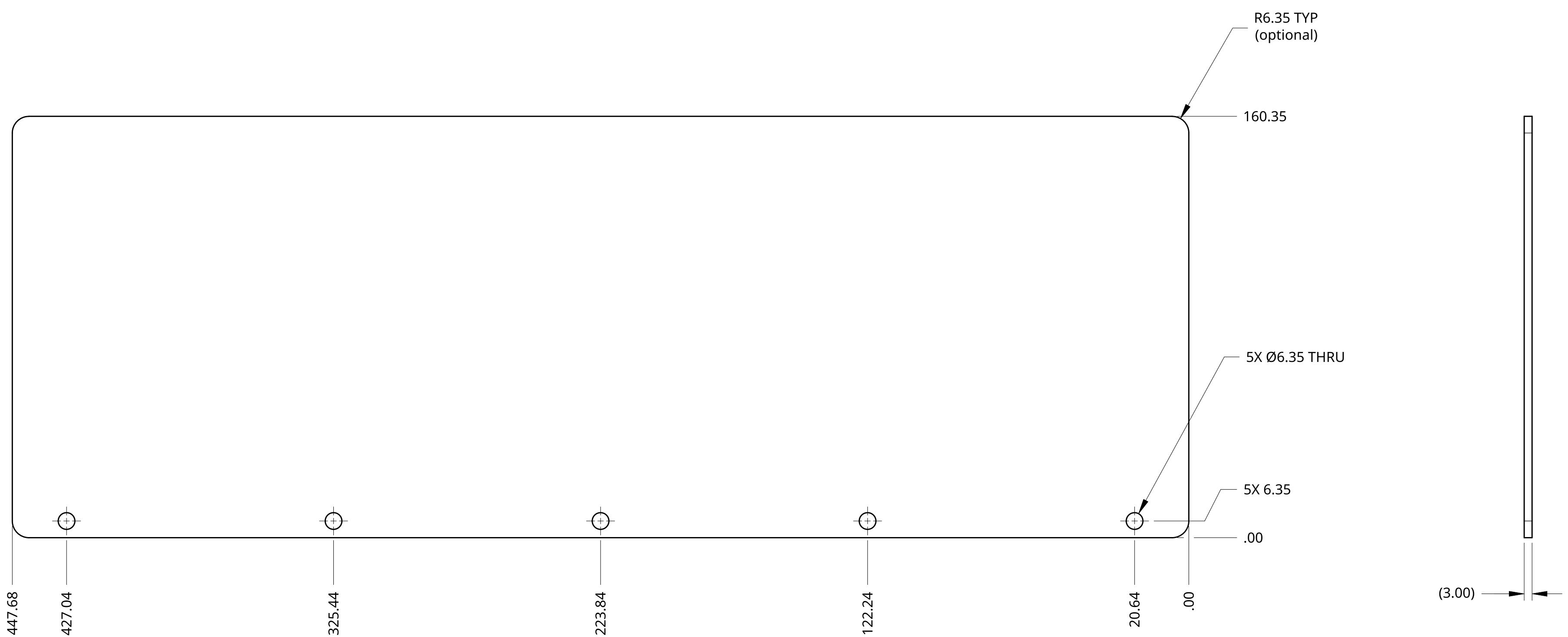
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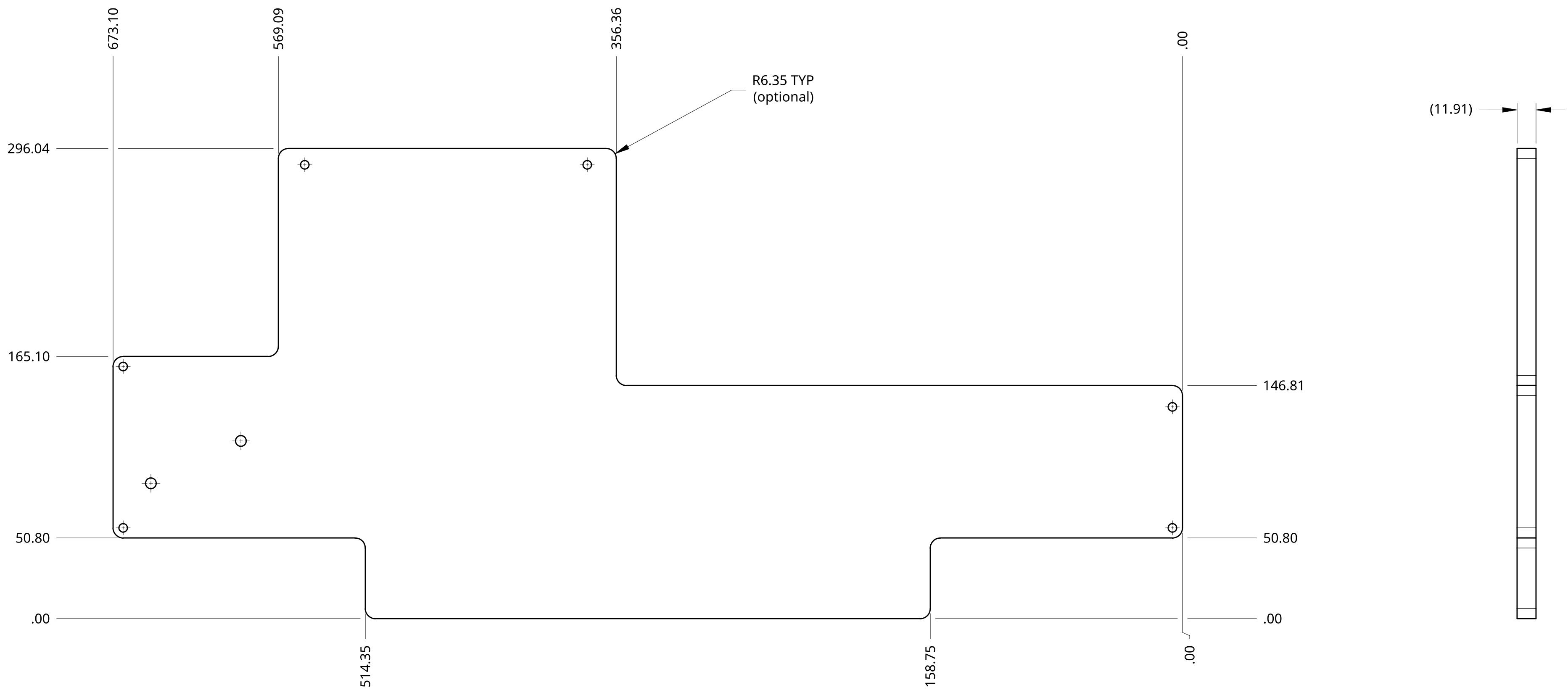
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| | DRAWN | JO | 12/10/2025 | |
| DO NOT SCALE DRAWING | MATERIAL .118" POLYCARBONATE SHEET | TITLE BATTERY ACCESS PANEL | | |
| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | | |
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| | SIZE C | DWG NO. | KB-26014 | REV. |
| | SCALE 4:5 | SHEET 1 of 1 | | |



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.XXX = $\pm .13$

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

1/2" PLYWOOD

FIRST
ROBOTICS
COMPETITION

ELECTRONICS PANEL

SIZE C DWG NO.
KB-26015 REV.

SCALE 1:2 SHEET 1 of 2

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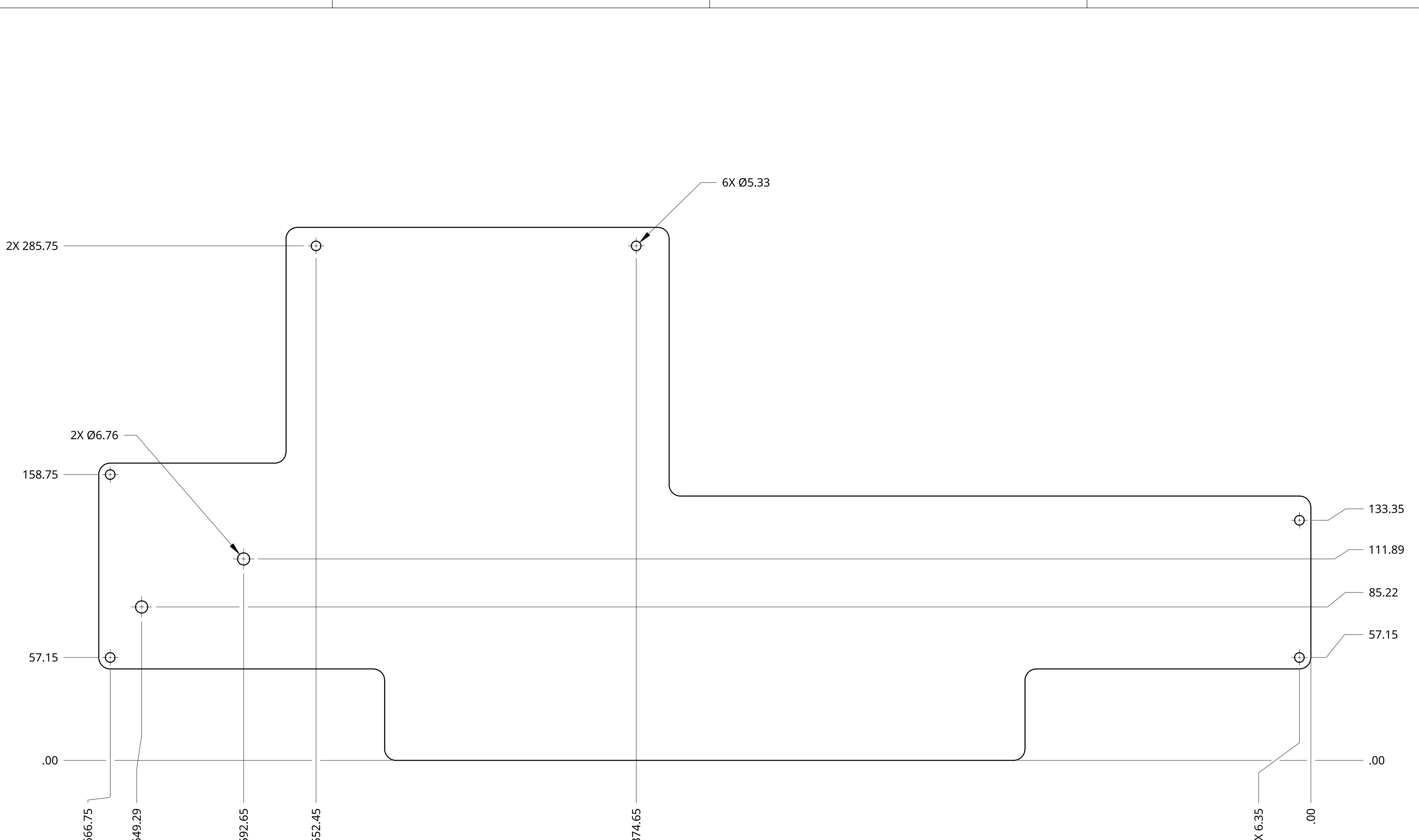
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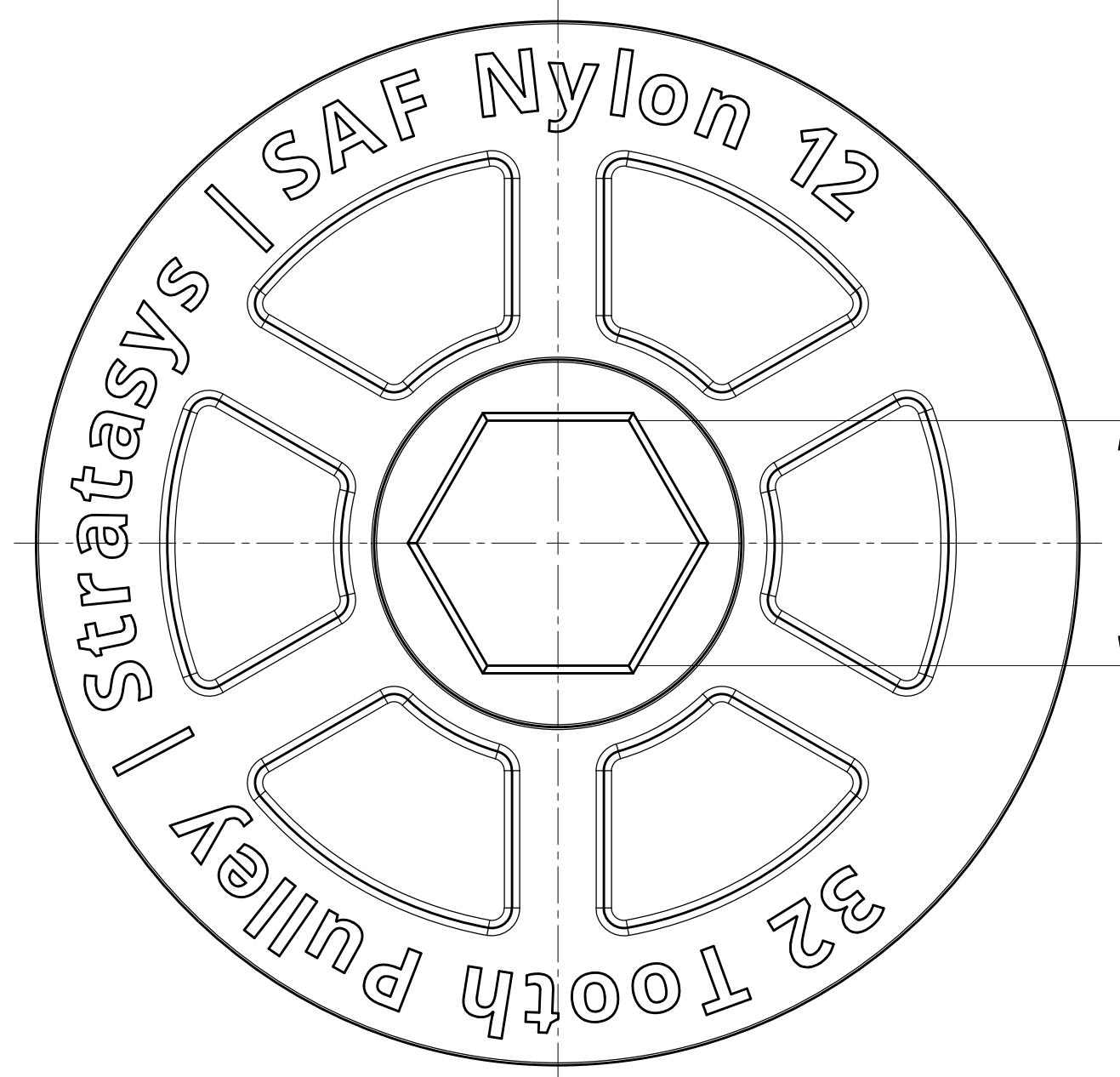
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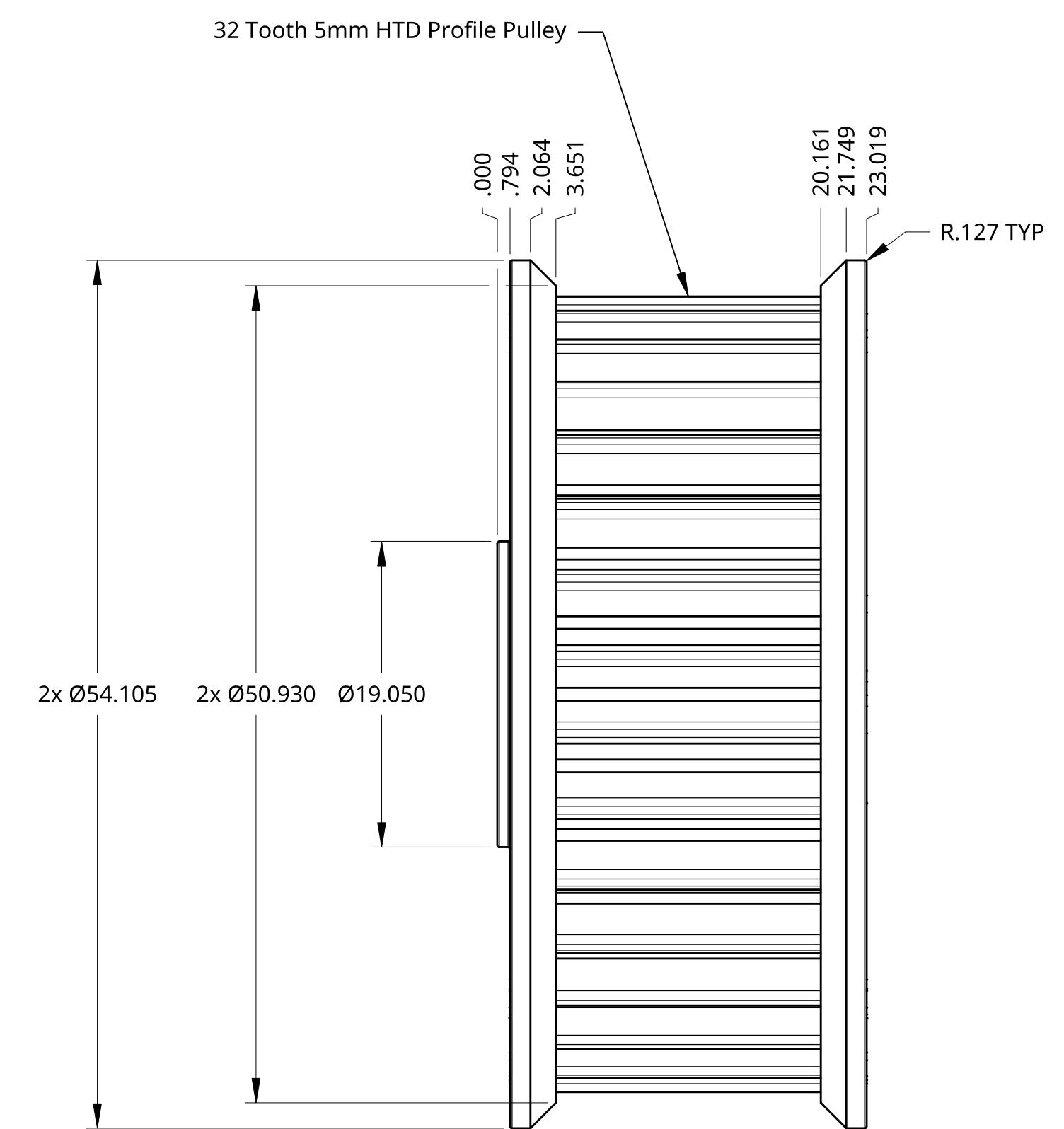


NOTE: All Holes can be marked for drilling by using the robot frame and electronics rather than measuring exact positions

| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS .XX = $\pm .25$ ANGULAR $\pm 1^\circ$.XXX = $\pm .13$ | VEND | NAME | DATE | FIRST ROBOTICS COMPETITION |
|--|--------------|----------|--------------|----------------------------------|
| | DRAWN | JO | 12/10/2025 | |
| DO NOT SCALE DRAWING | | MATERIAL | | TITLE |
| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | | |
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| | SIZE C | DWG NO. | | REV. |
| | SCALE 2:3 | | | SHEET 2 of 2 |



12.700 HEX with lead in Chamfer



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.XXX = $\pm .13$

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

SAF-PA12

FIRST
ROBOTICS
COMPETITION

TRANSITION PULLEY

KB-26016

REV. 1 of 1

SIZE C DWG NO.

SCALE 3:1 SHEET 1 of 1

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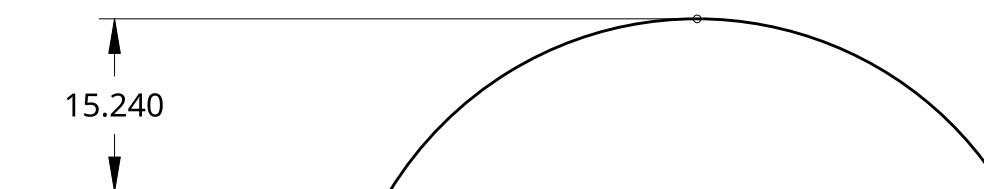
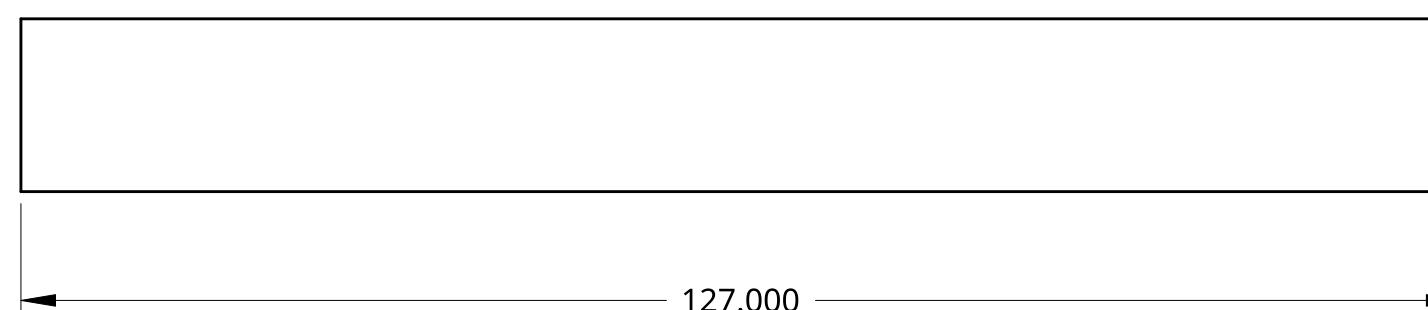
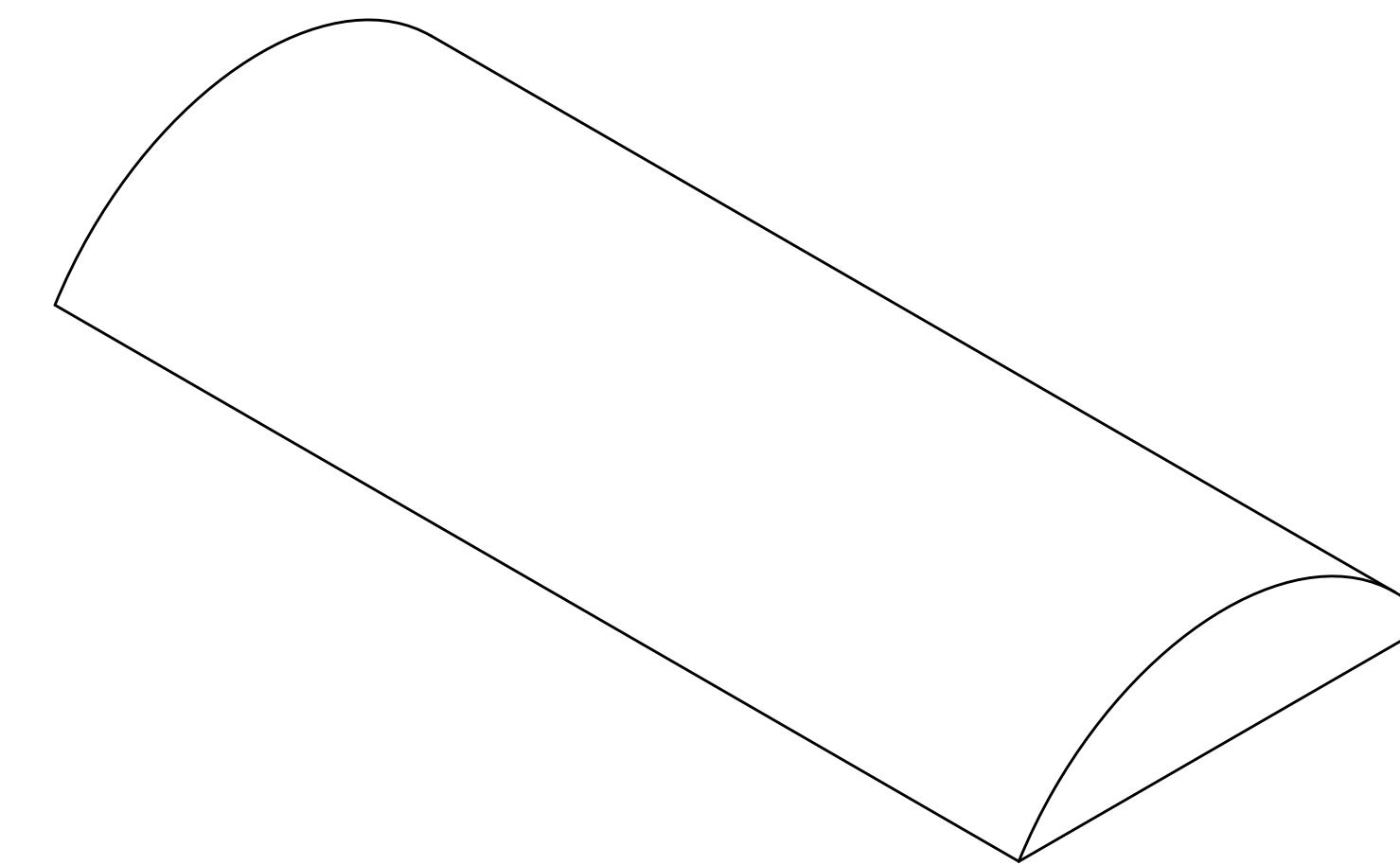
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Note: This dimension may need to be altered based on testing.

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.XX = $\pm .25$ ANGULAR $\pm 1^\circ$
.XXX = $\pm .13$

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VEND NAME DATE
DRAWN JO 12/10/2025

MATERIAL

KIT OF PARTS 2.5"
POOL NOODLE

TITLE

 FIRST
ROBOTICS
COMPETITION

DEAD ZONE NOODLE

SIZE

C

DWG NO.

KB-26017

REV.

SCALE

1.5:1

1 of 1

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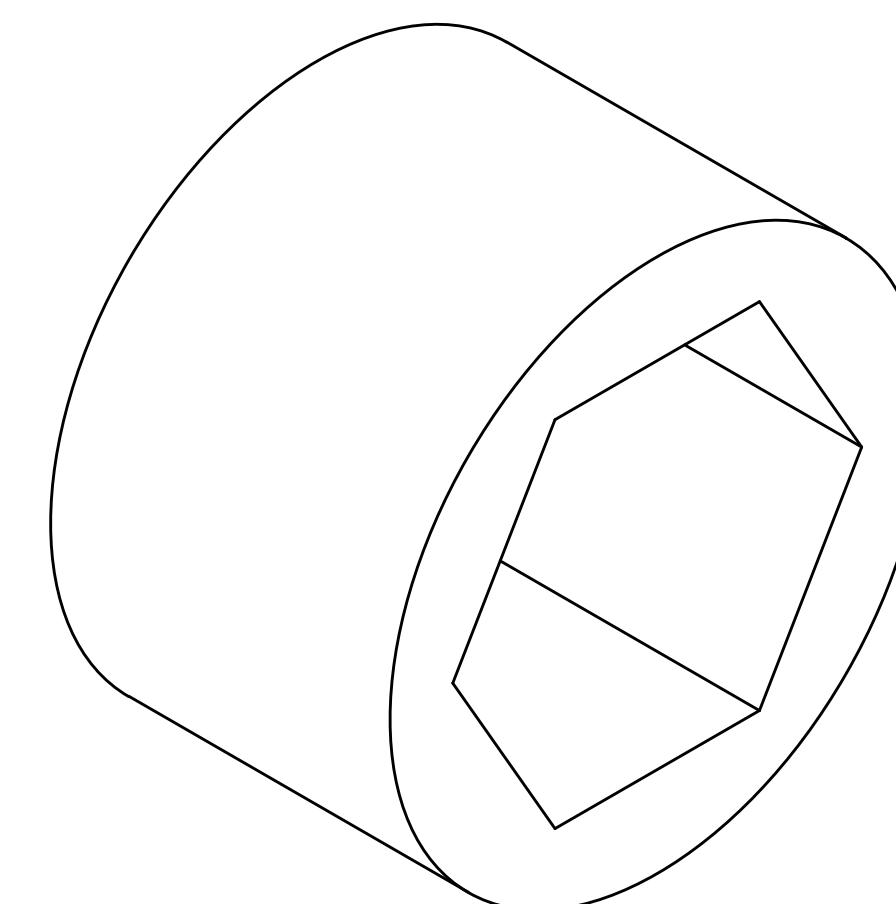
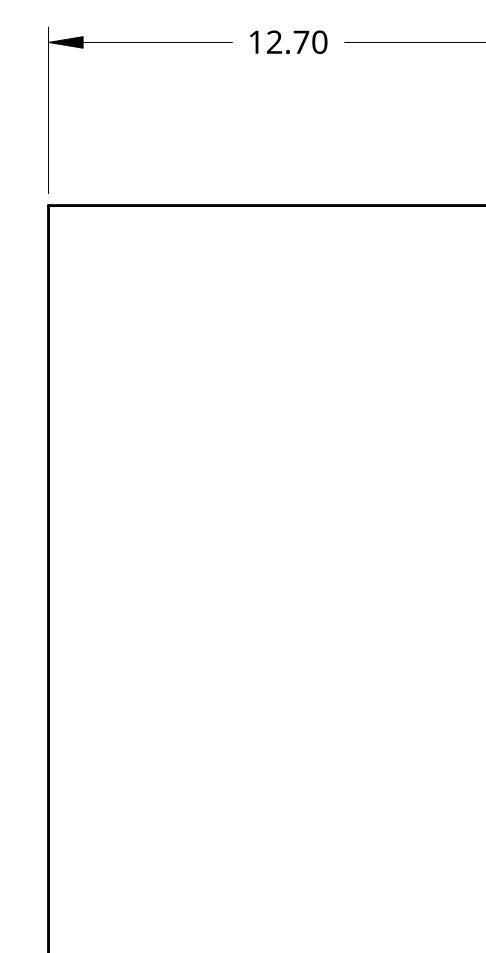
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|--|--|--|--|----------|------------|--|---|--|--|--|--|--|
| DRAWN | | | | JO | 12/10/2025 | TITLE INTAKE SHAFT SMALL SPACER MATERIAL PLA 3D PRINTED, PVC, OR COTS SIZE C DWG NO. KB-26018 REV. SCALE 5:1 SHEET 1 of 1 | | | | | | |
| DO NOT SCALE DRAWING | | | | MATERIAL | | | | | | | | |
| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | | | | | | | | | | |
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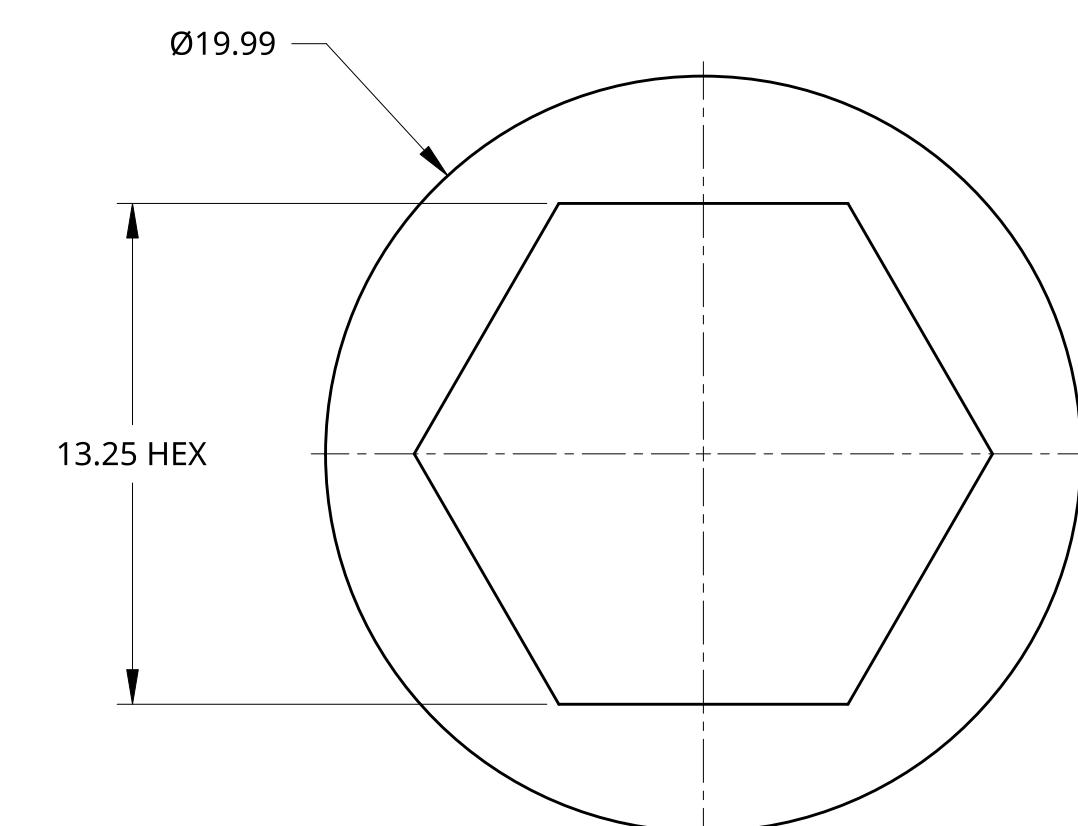
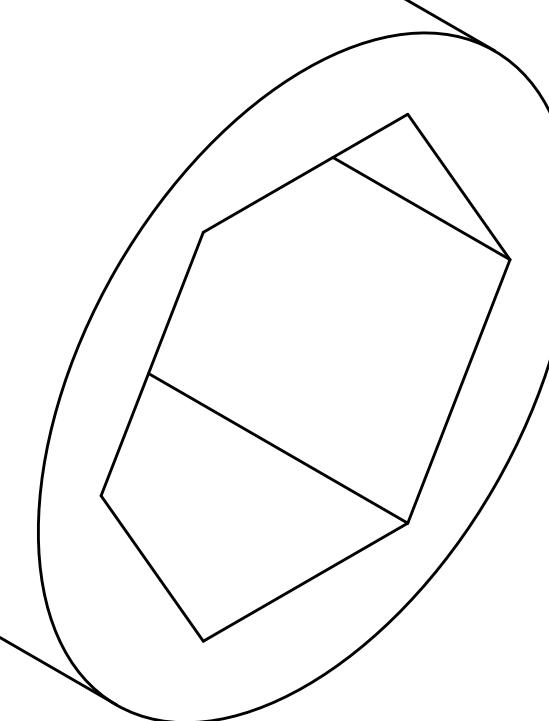
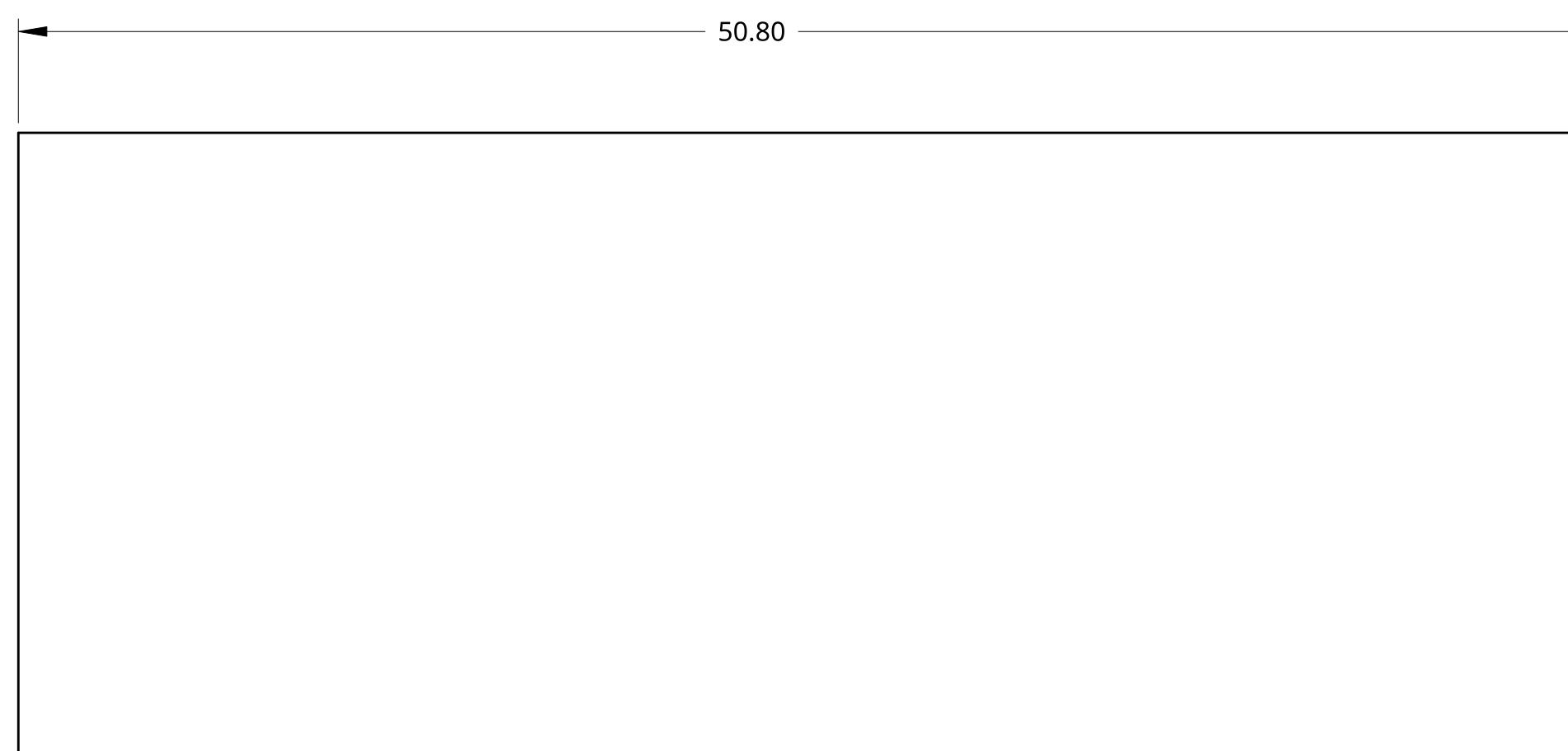
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| UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS .XX = ±.25 ANGULAR ± 1° .XXX = ±.13 | | | VEND | NAME | DATE | FIRST ROBOTICS COMPETITION | | |
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| BREAK ALL SHARP EDGES AND REMOVE BURRS | | | MATERIAL | | | PLA 3D PRINTED, PVC, OR MADE FROM COTS SPACERS | | |
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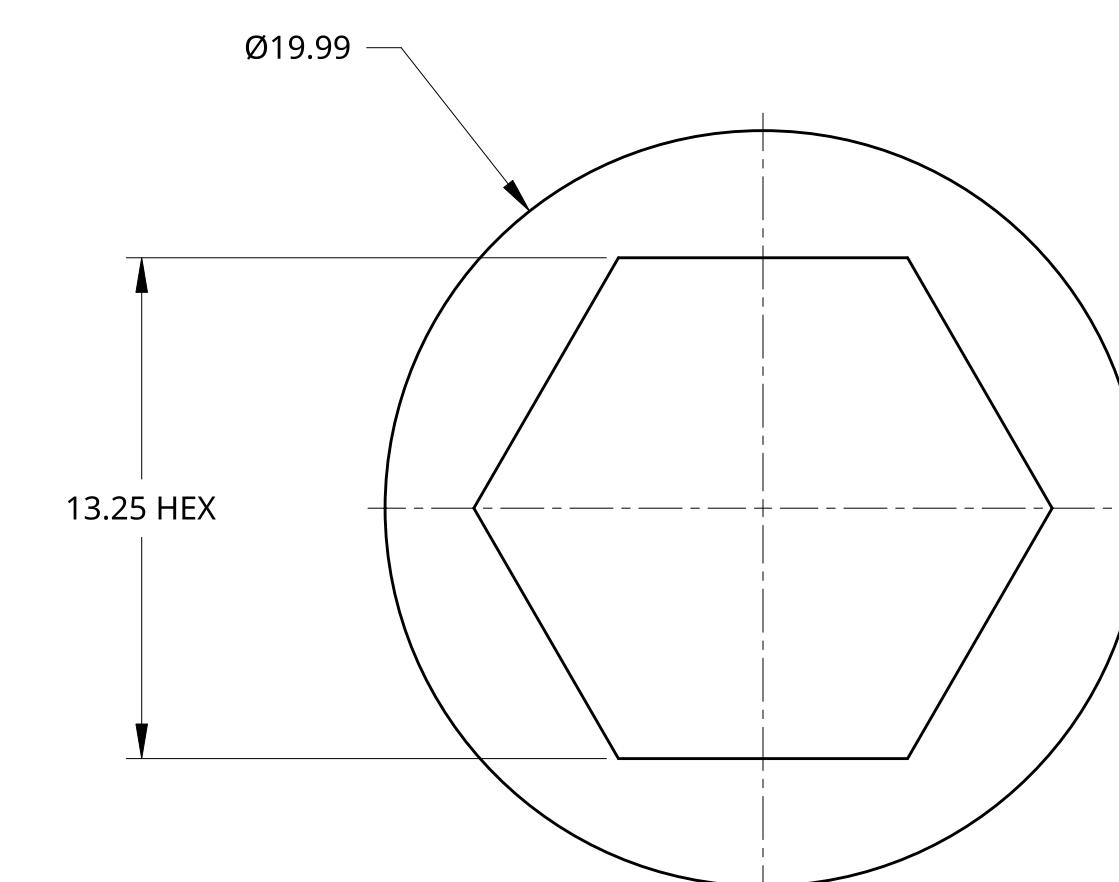
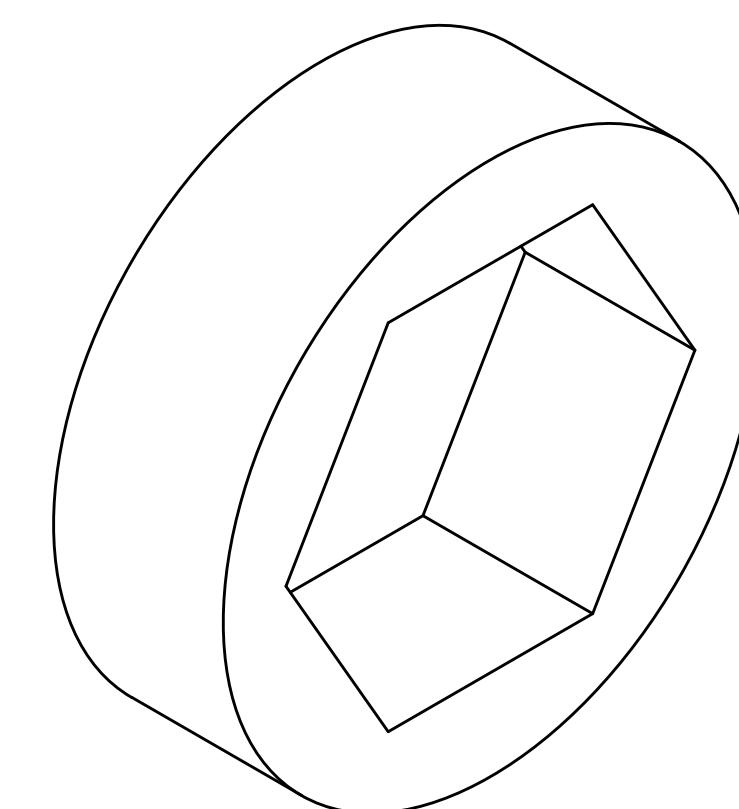
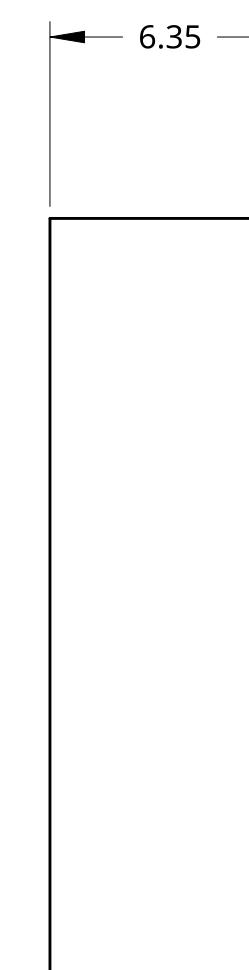
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.XX = $\pm .25$ ANGULAR $\pm 1^\circ$
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DRAWN JO 12/10/2025

MATERIAL

PLA 3D PRINTED,
PVC, OR COTS

 FIRST
ROBOTICS
COMPETITION

1/4" LONG HEX SPACER

SIZE DWG NO.

C KB-26020

REV. SHEET
5:1 1 of 1

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