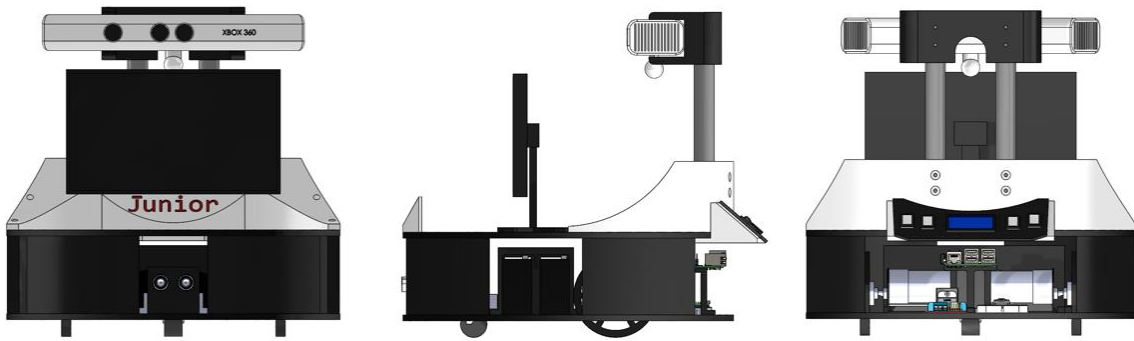


Junior:

Design Documentation



Authors: Reed Johnson, Nathan Kong, Amer Safdari, Rebecca Smith

Contents:

- (1) Bill of Materials
- (2) Drawings of custom parts designed for the robot

Note: The drawings are not complete with all dimensions. Important dimensions are displayed.

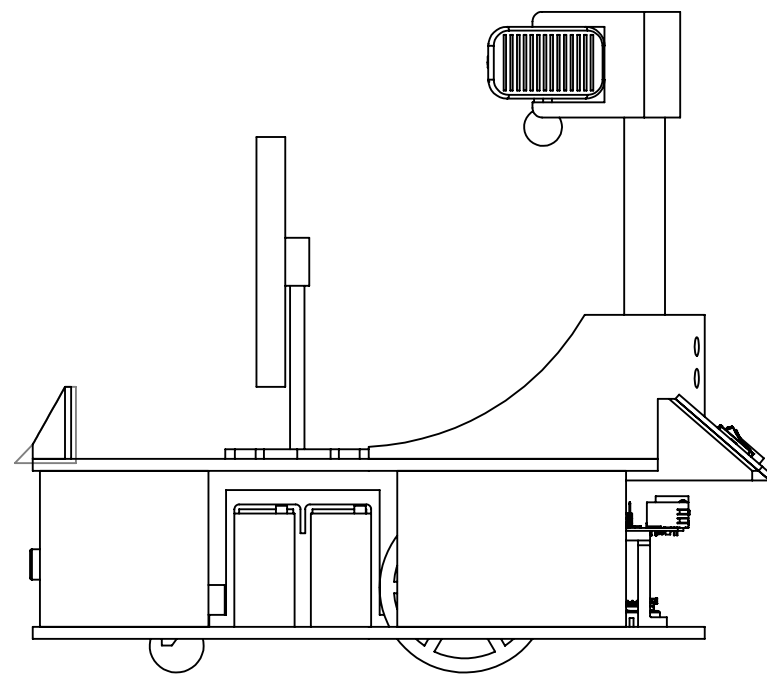
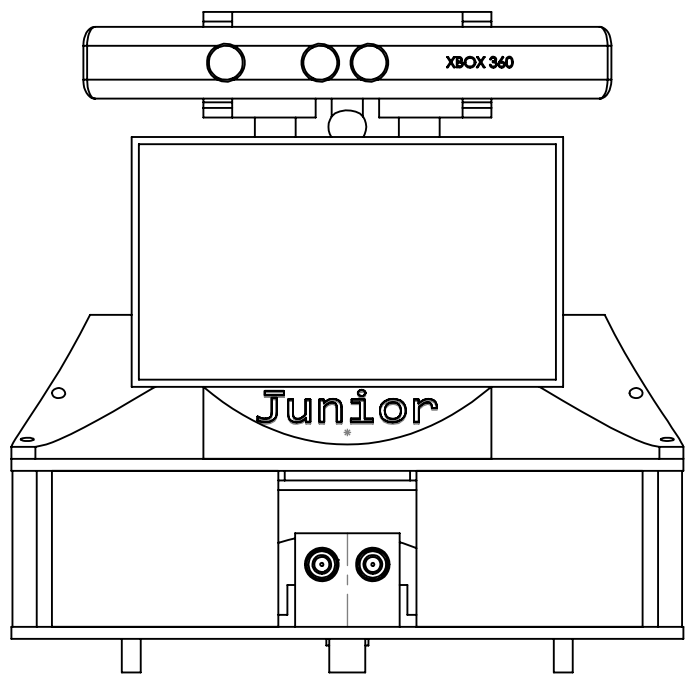
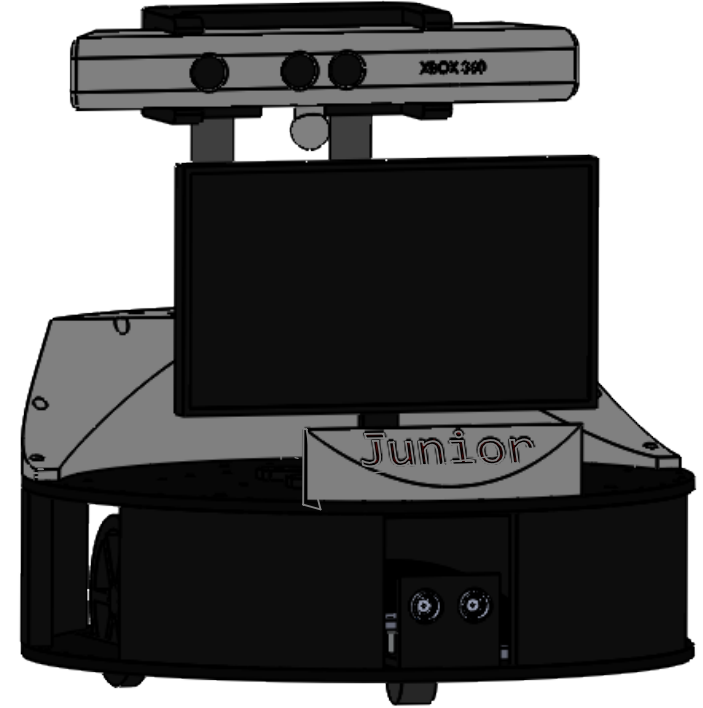
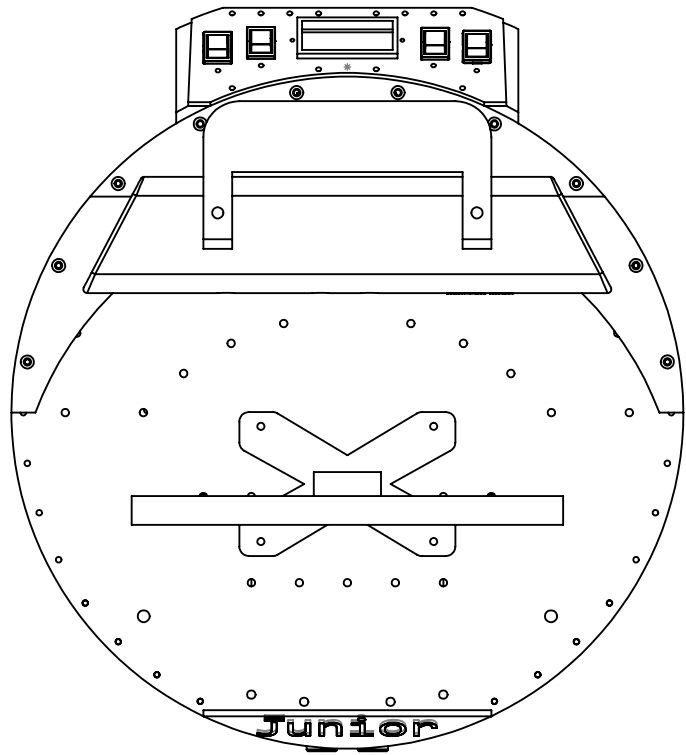
Junior:			
Bill of Materials:			
Item #:	Part Name:	Quantity:	Source:
1	Bottom Chassis	1	Laser cut
2	Top Chassis	1	Laser cut
3	Junior Sides	1	3D Printed
4	Nameplate	1	3D Printed
5	Ultrasonic Mount	1	3D Printed
6	Battery Holder	1	3D Printed
7	Rod Holder	1	3D Printed
8	UP Board Mount	1	3D Printed
9	Switchboard	1	3D Printed
10	Switchboard Panel	1	Laser cut
11	Kinect Mount	1	3D Printed
12	Kinect Poles	1	PVC Pipe
13	Caster Wheel	1	AX Man
14	Wheel	2	Amazon
15	DC Motor	2	Amazon
16	Motor Bracket	2	Amazon
17	Ultrasonic Sensor	1	Amazon
18	12v Battery	2	Amazon
19	Breadboard	1	Amazon
20	Teensy 3.5	1	Amazon
21	Motor Driver	1	Amazon
22	UP Board	1	UP-Board.com
23	Microsoft Kinect	1	Amazon
24	Voltage monitor	1	Amazon

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		THREE PLACE DECIMAL ±	COMMENTS:				
		INTERPRET GEOMETRIC TOLERANCING PER:			SIZE	DWG. NO.	REV
		MATERIAL			B	Full Assem	
NEXT ASSY	USED ON	FINISH			SCALE: 1:5	WEIGHT:	SHEET 1 OF 1
APPLICATION		DO NOT SCALE DRAWING					

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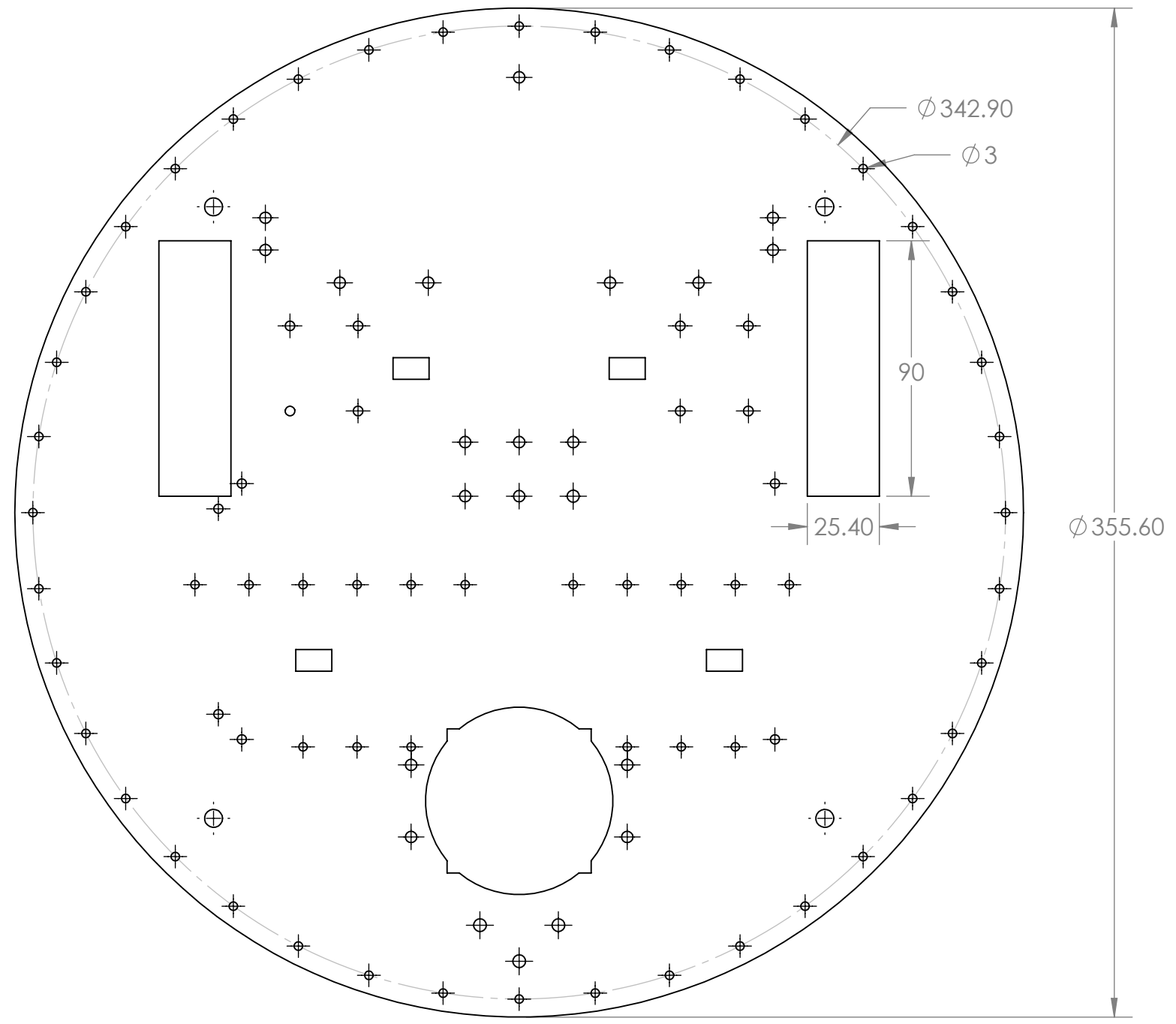
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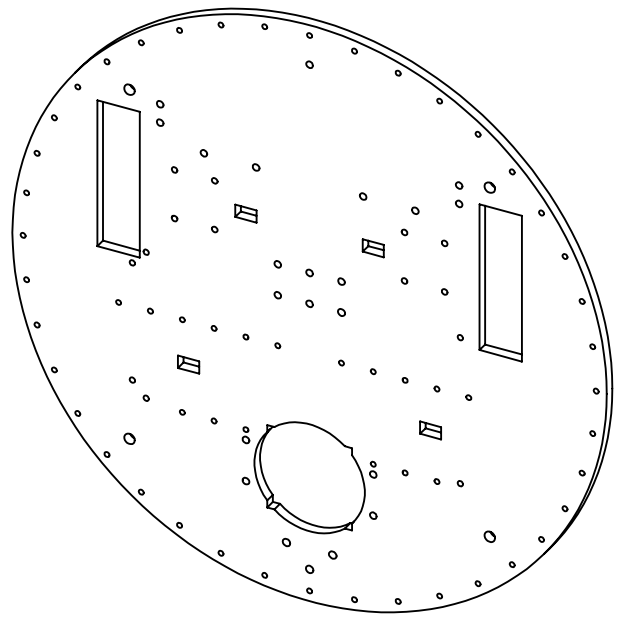
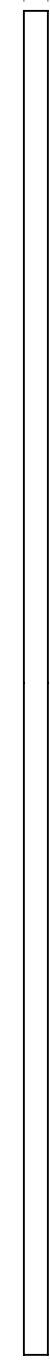
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6.35



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		THREE PLACE DECIMAL \pm	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				
		MATERIAL				
NEXT ASSY	USED ON	FINISH	SIZE	DWG. NO.	REV	
APPLICATION		DO NOT SCALE DRAWING	B	Bottom Chassis		
			SCALE: 1:2	WEIGHT:	SHEET 1 OF 1	

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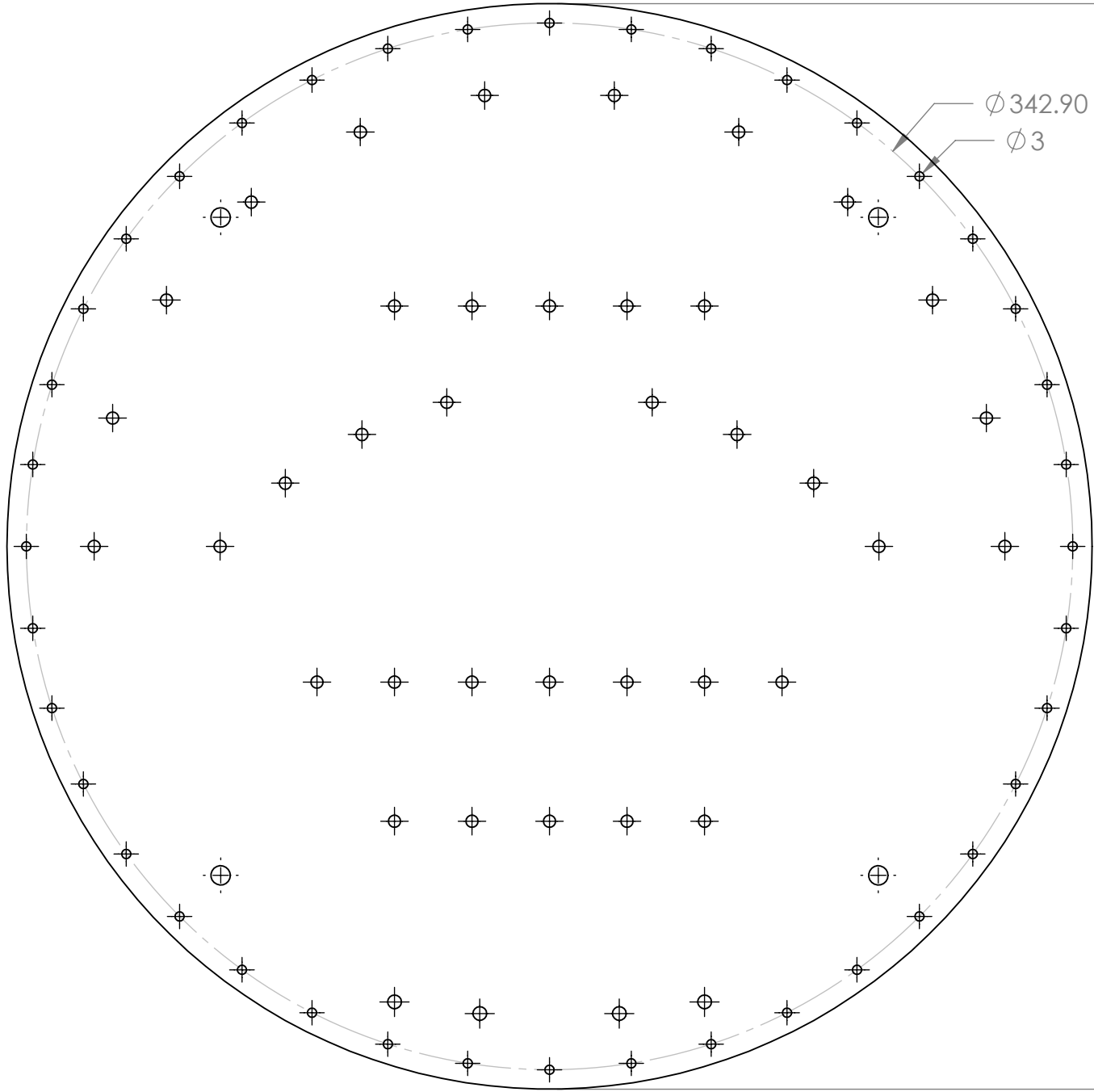
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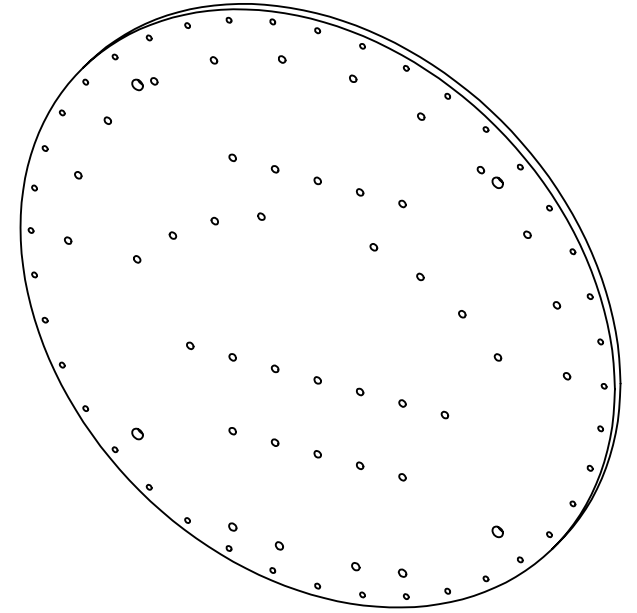
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$\phi 355.60$

$\phi 342.90$
 $\phi 3$

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		ANGULAR: MACH \pm BEND \pm		MFG APPR.			
		TWO PLACE DECIMAL \pm		Q.A.		SIZE DWG. NO. REV B Top Chassis	
		THREE PLACE DECIMAL \pm		COMMENTS:			
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		MATERIAL					
		FINISH					
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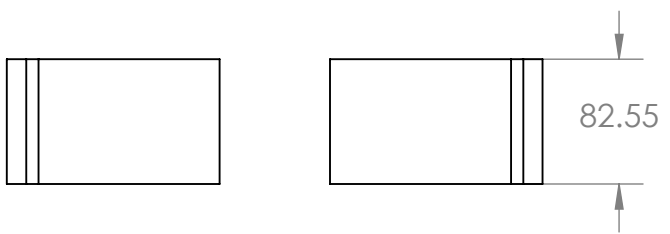
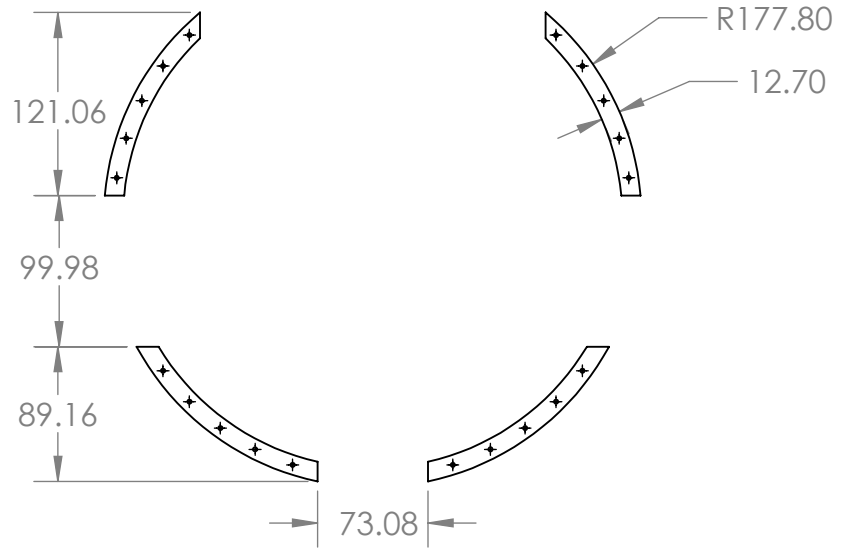
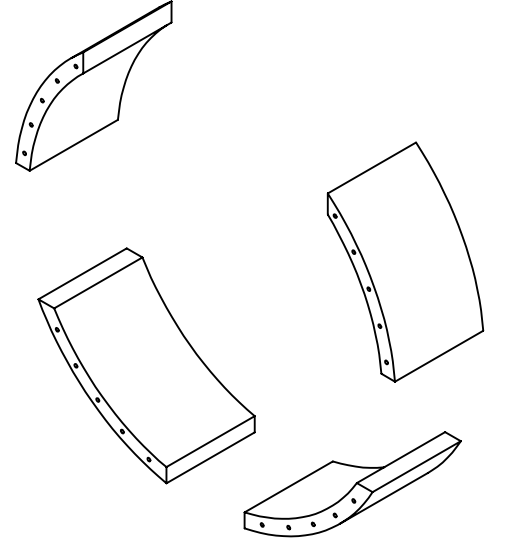
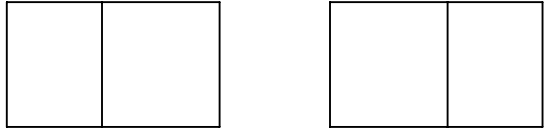
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		ANGULAR: MACH ± BEND ±	MFG APPR.			
		TWO PLACE DECIMAL ±	Q.A.			SIZE DWG. NO. REV
		THREE PLACE DECIMAL ±	COMMENTS:			B Junior Sides
		INTERPRET GEOMETRIC TOLERANCING PER:				SCALE: 1:5 WEIGHT: SHEET 1 OF 1
		MATERIAL				
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APPLICATION		DO NOT SCALE DRAWING				

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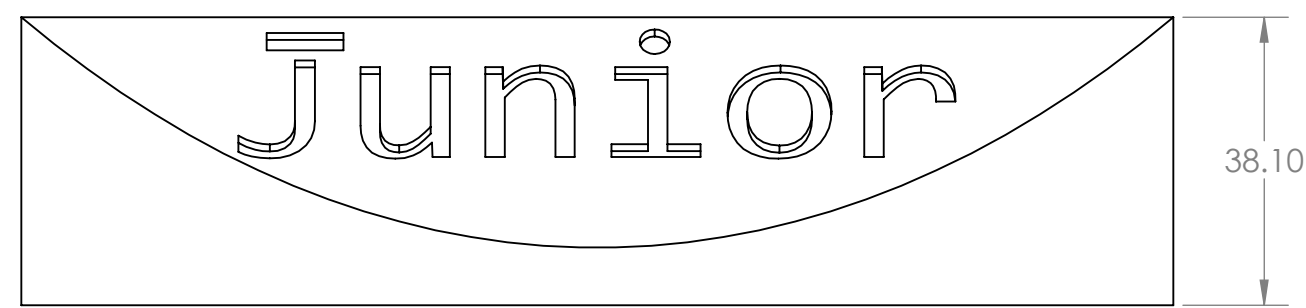
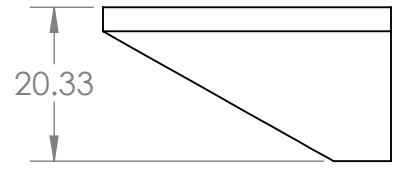
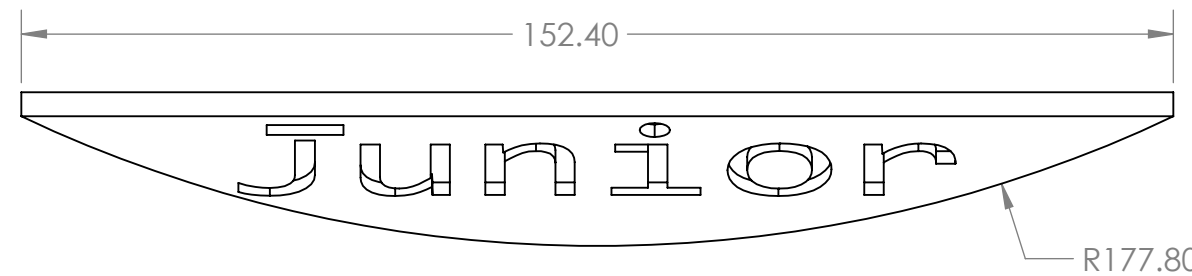
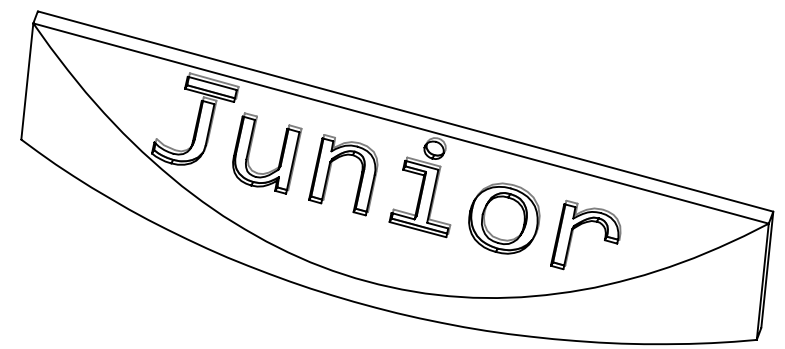
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		TWO PLACE DECIMAL ±	Q.A.					
		THREE PLACE DECIMAL ±	COMMENTS:					
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		MATERIAL				B Nameplate		
NEXT ASSY	USED ON	FINISH				SCALE: 1:1	WEIGHT:	SHEET 1 OF 1
APPLICATION		DO NOT SCALE DRAWING						

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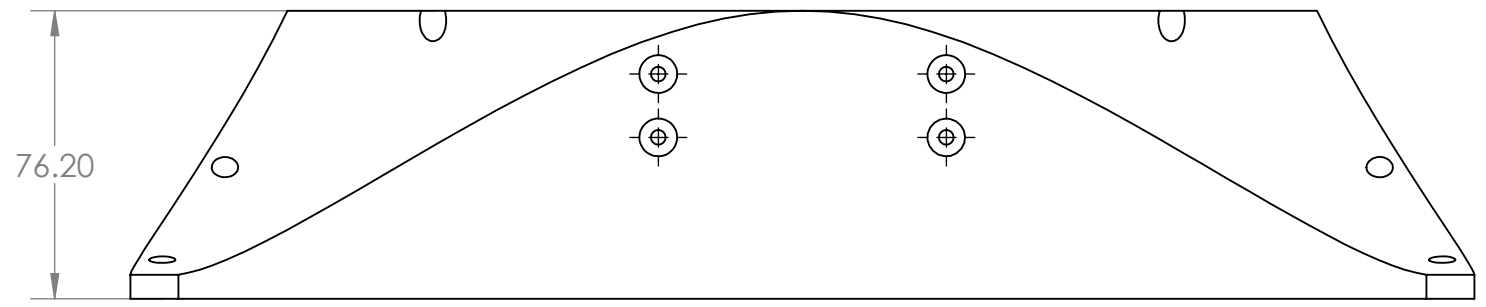
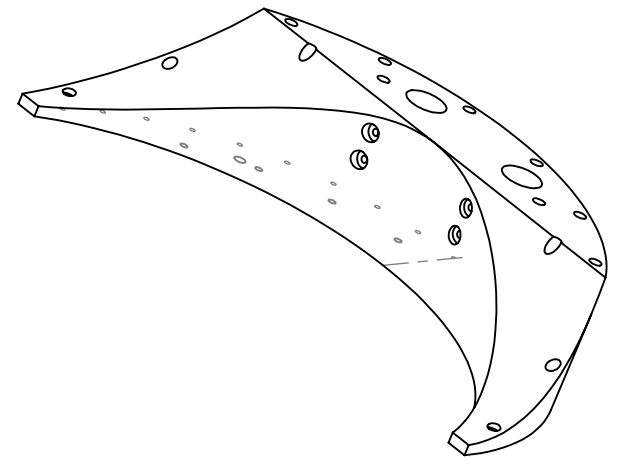
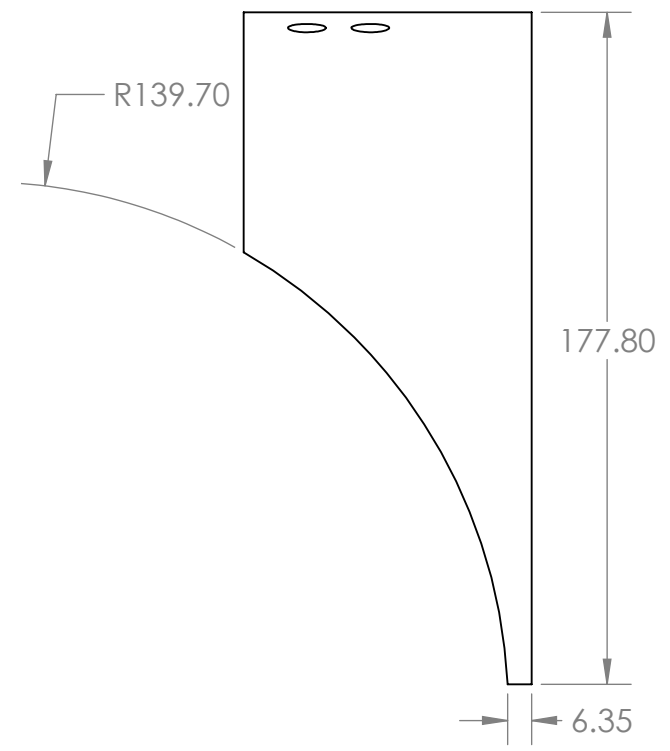
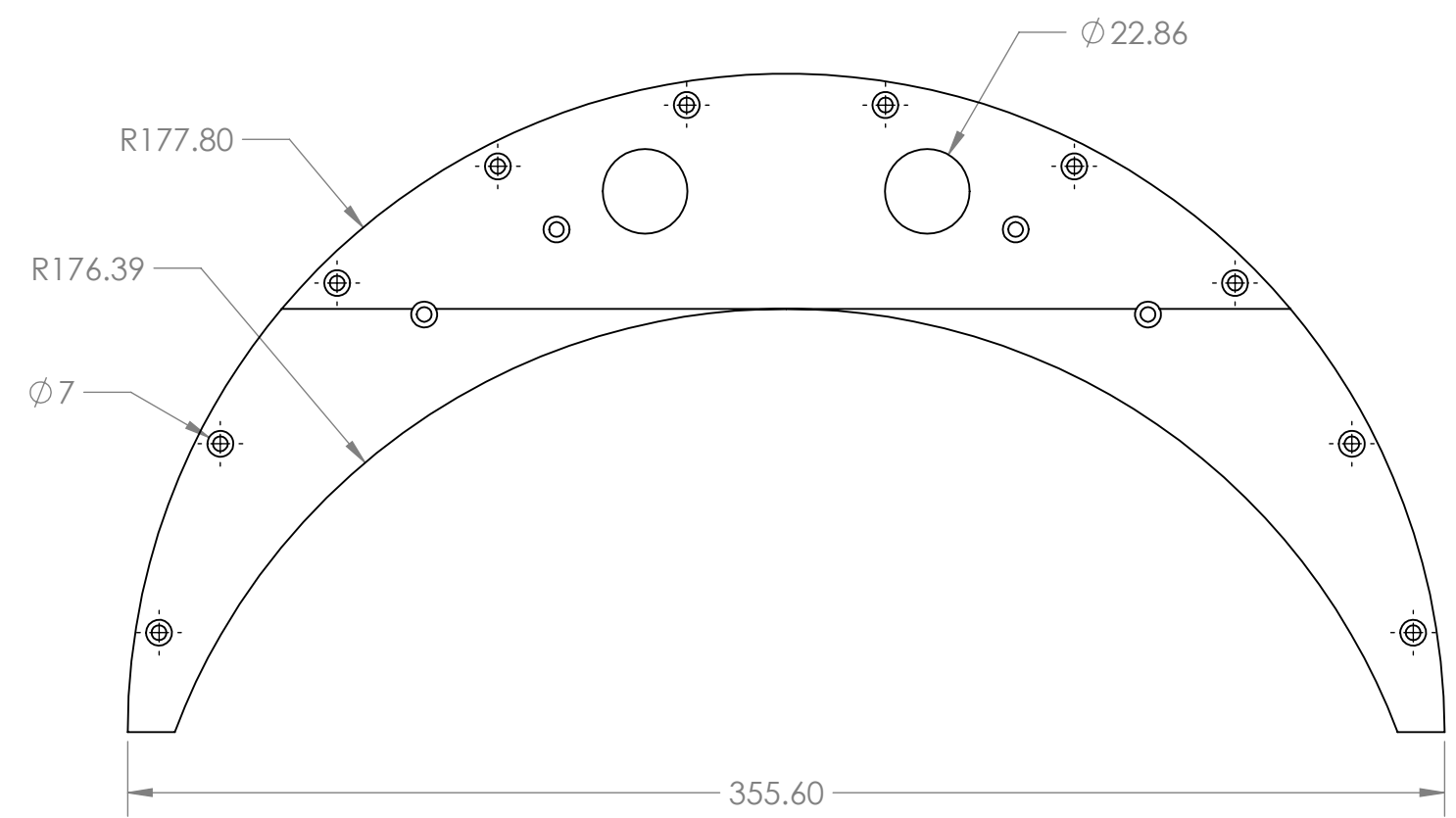
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		TWO PLACE DECIMAL ±	Q.A.			
		THREE PLACE DECIMAL ±	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				
		MATERIAL				
NEXT ASSY	USED ON	FINISH				
APPLICATION		DO NOT SCALE DRAWING				
SIZE	DWG. NO.	REV				
B	RodHolder					
SCALE: 1:2	WEIGHT:	SHEET 1 OF 1				

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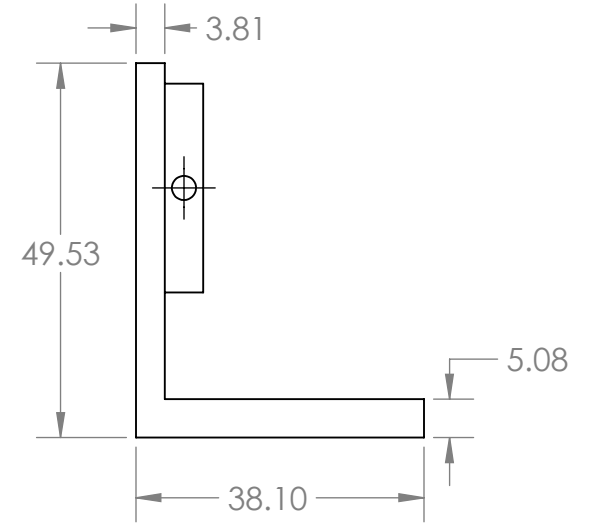
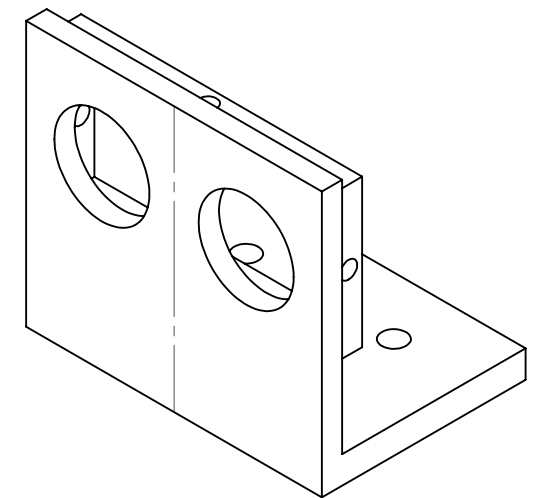
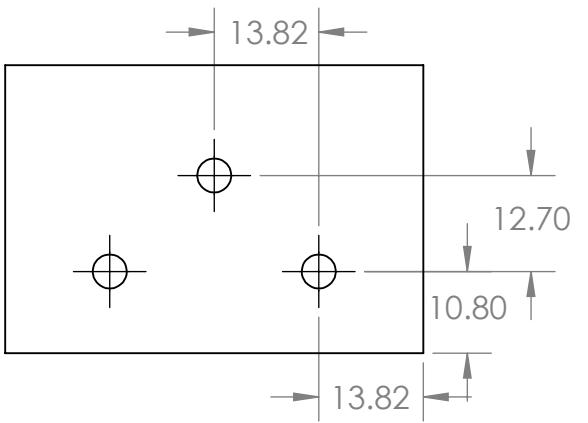
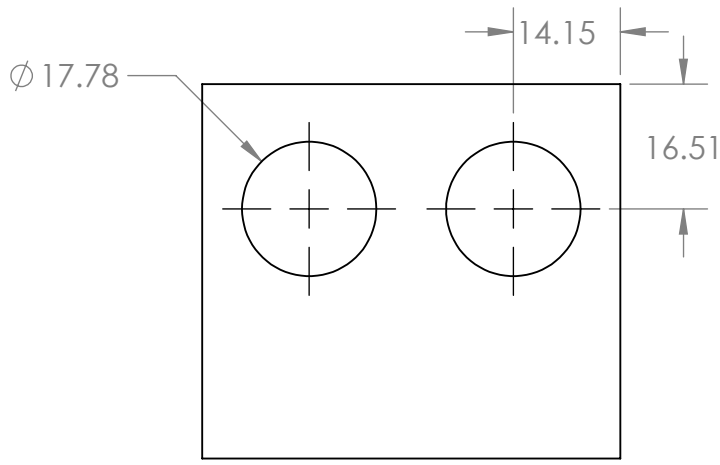
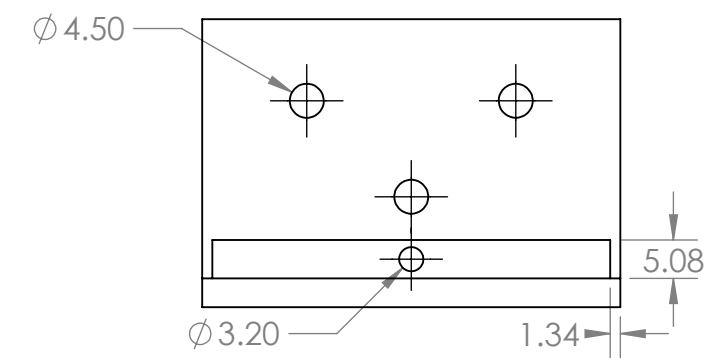
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		TWO PLACE DECIMAL \pm	Q.A.		SIZE DWG. NO. REV B ultraSonic_Mount	
		THREE PLACE DECIMAL \pm	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				SCALE: 1:1
		MATERIAL				WEIGHT:
NEXT ASSY	USED ON	FINISH				SHEET 1 OF 1
APPLICATION		DO NOT SCALE DRAWING				

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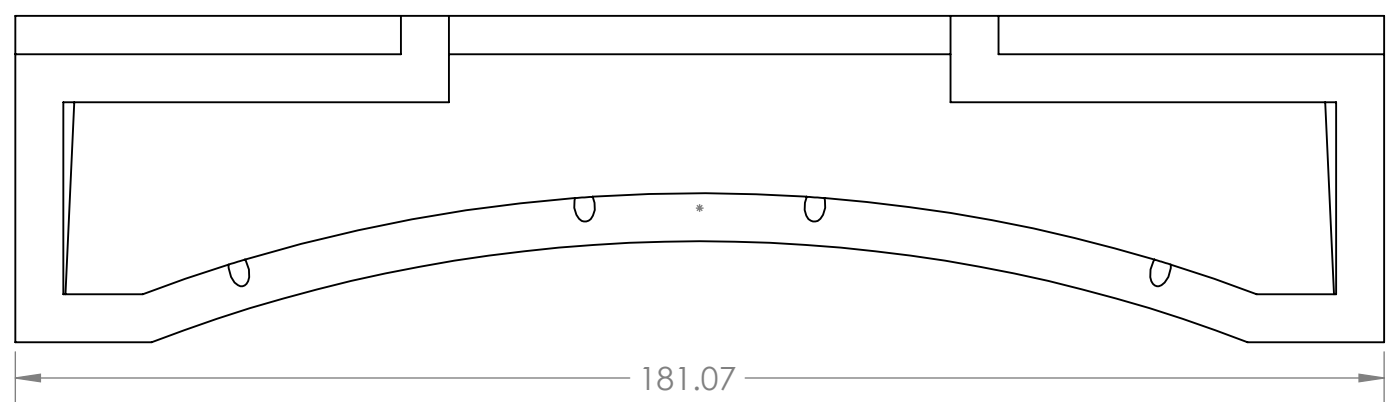
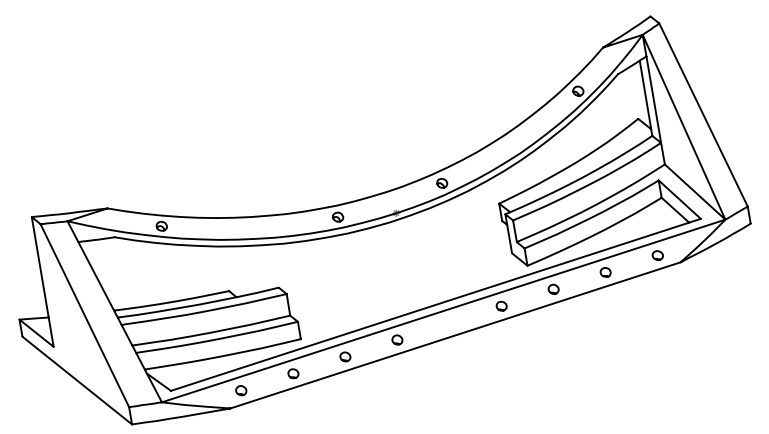
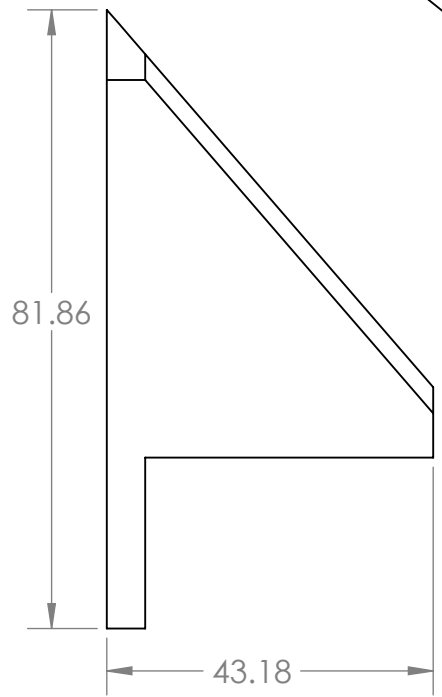
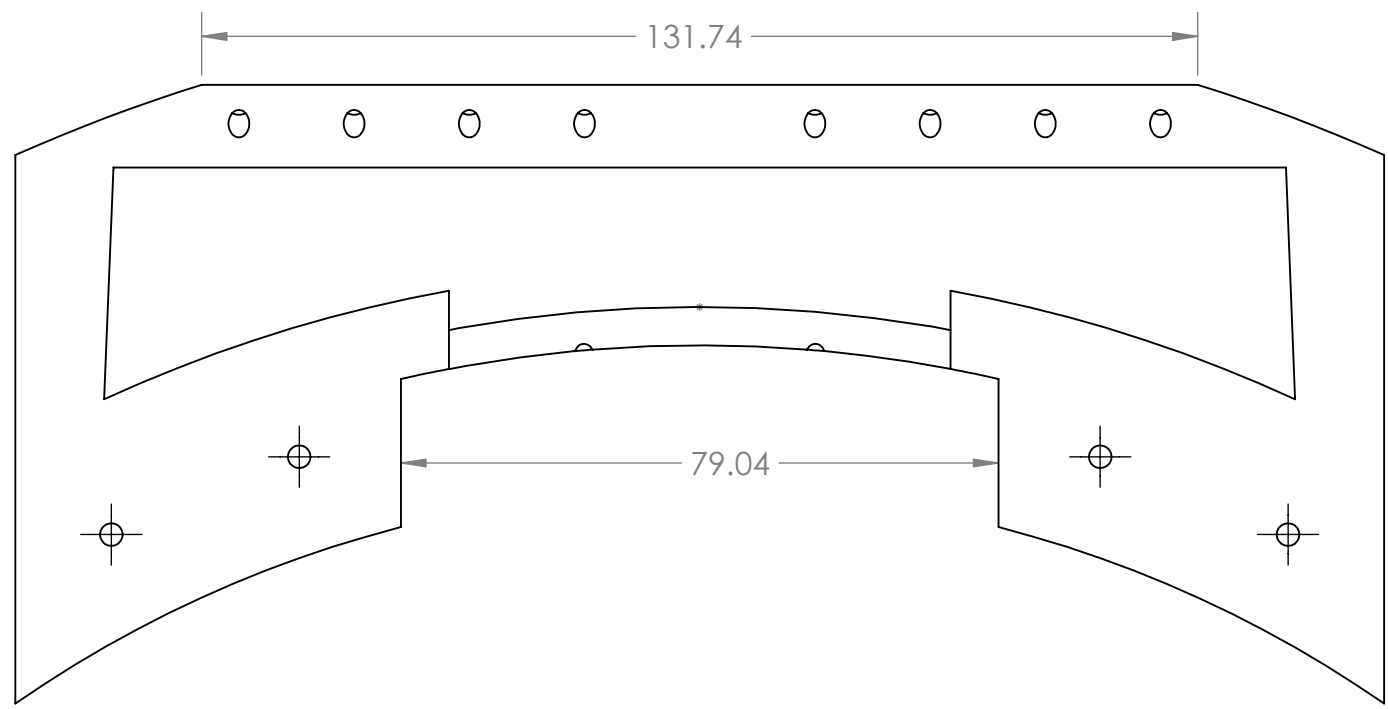
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		THREE PLACE DECIMAL ±	COMMENTS:			
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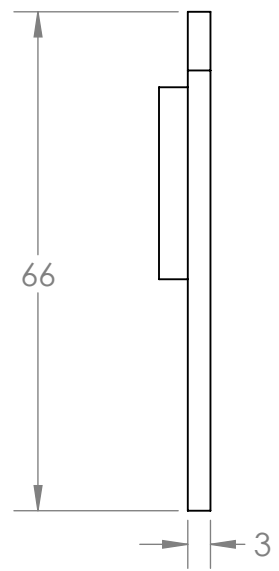
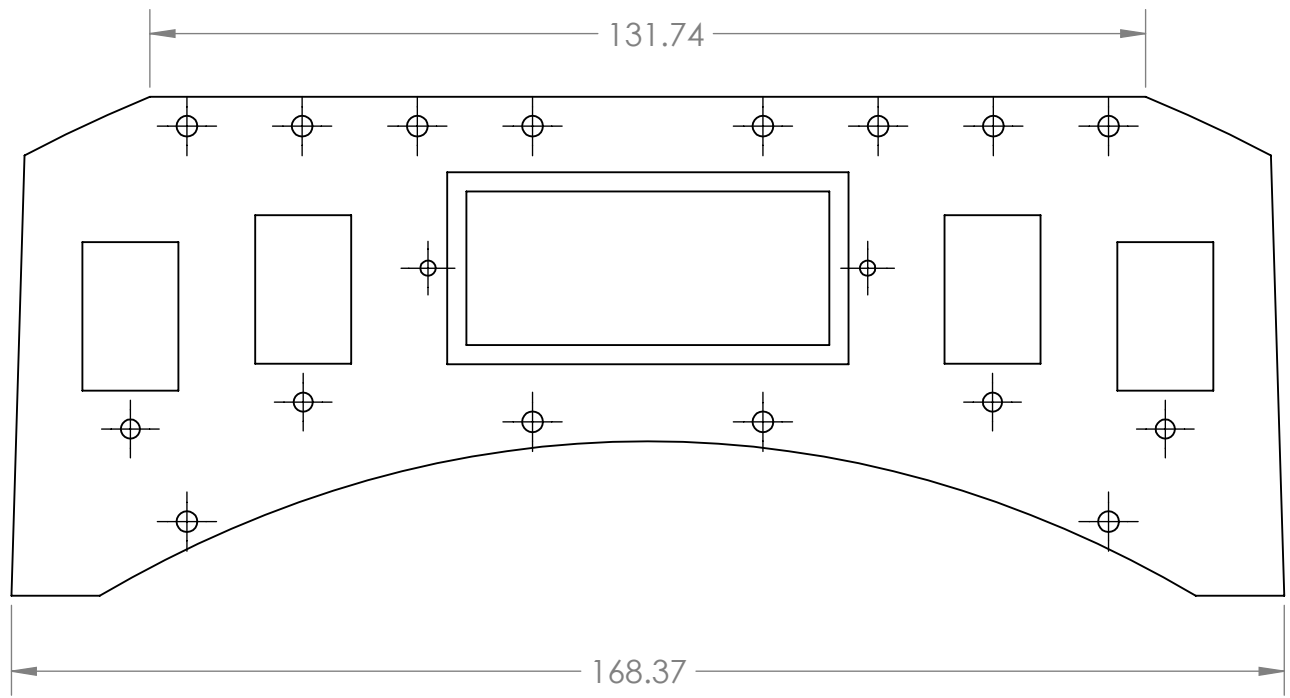
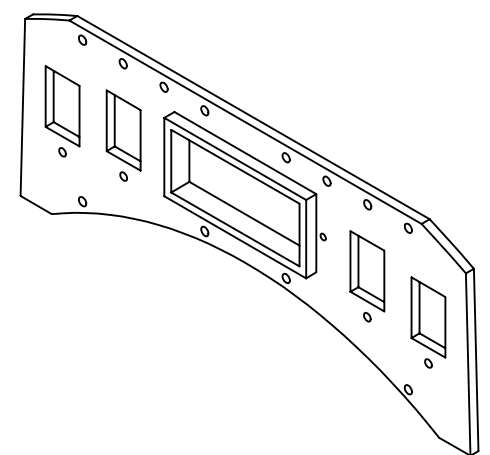
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		THREE PLACE DECIMAL ±	COMMENTS:			
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		MATERIAL				
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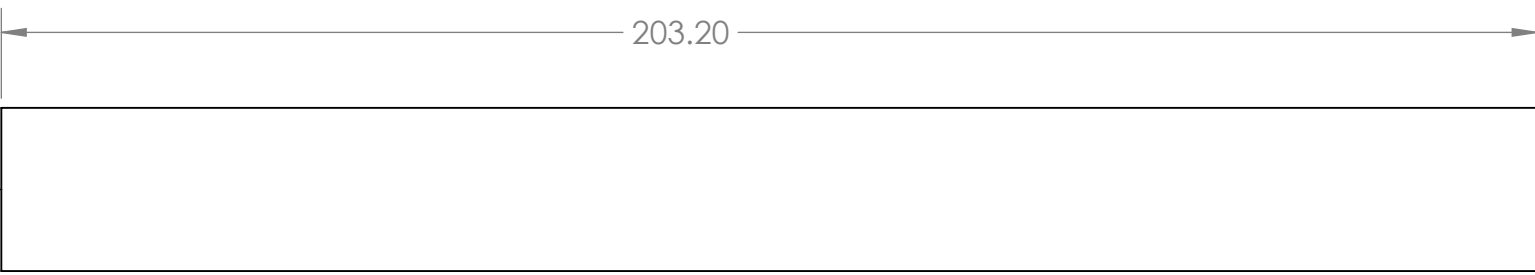
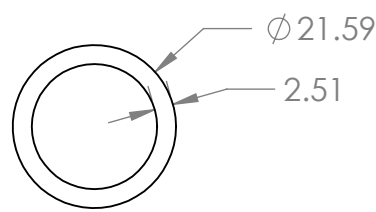
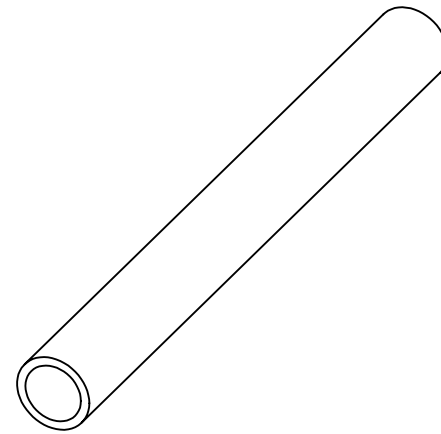
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		TWO PLACE DECIMAL \pm	Q.A.			
		THREE PLACE DECIMAL \pm	COMMENTS:			SCALE: 1:1 WEIGHT: SHEET 1 OF 1
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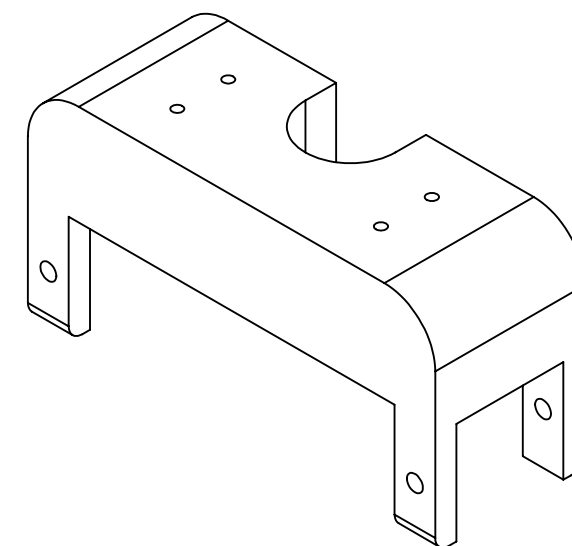
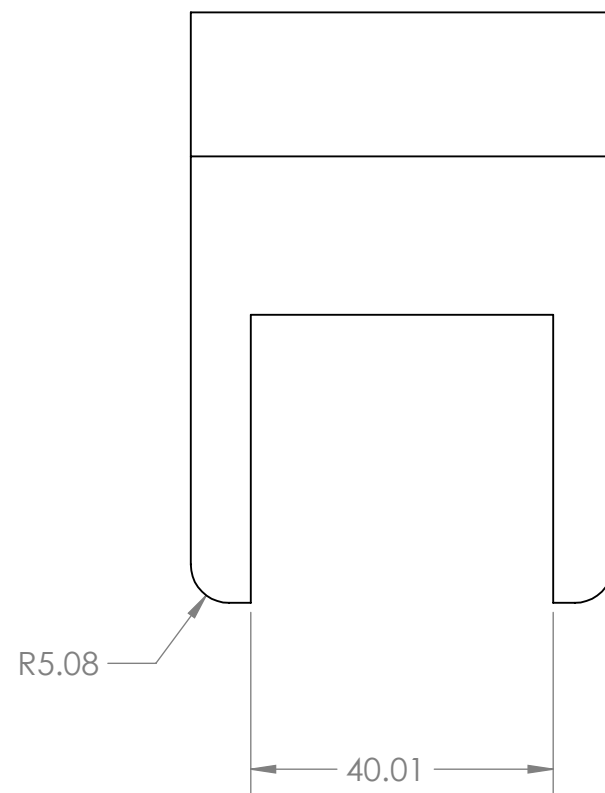
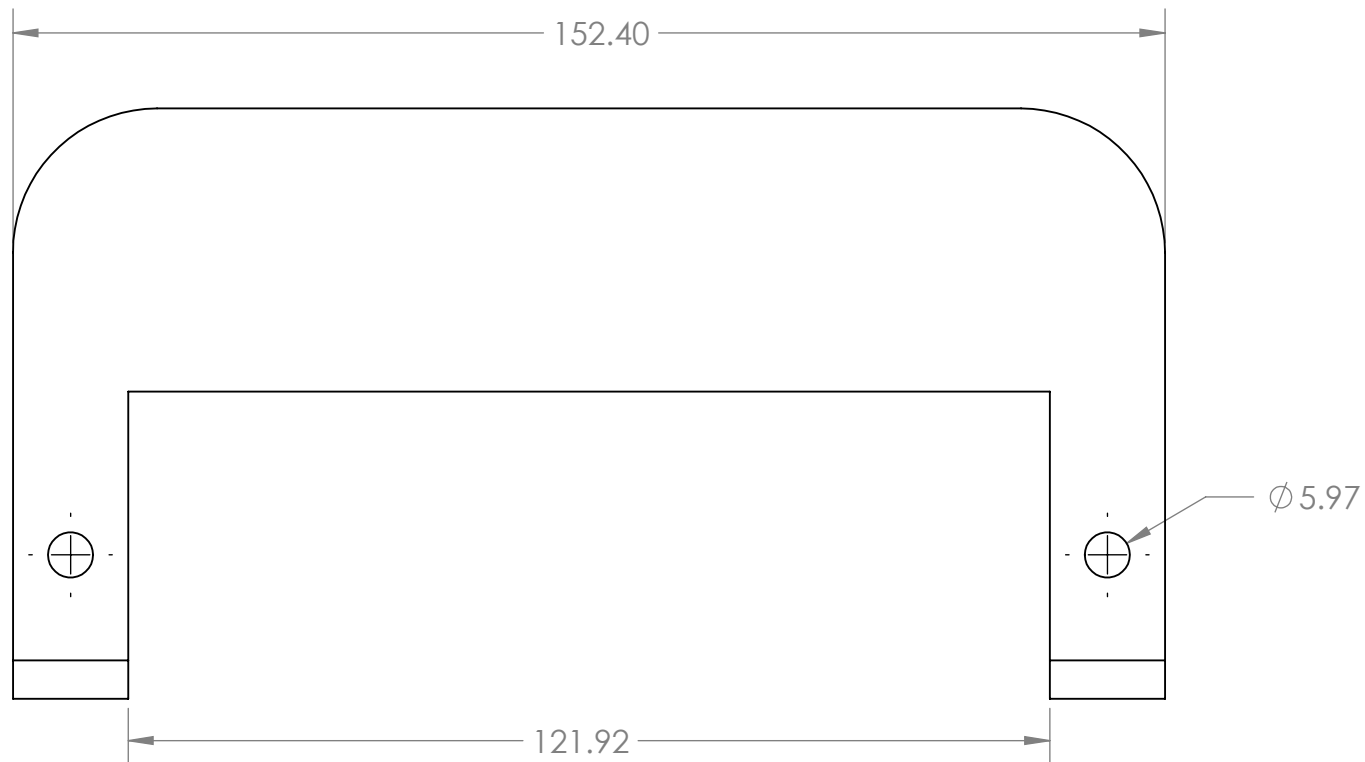
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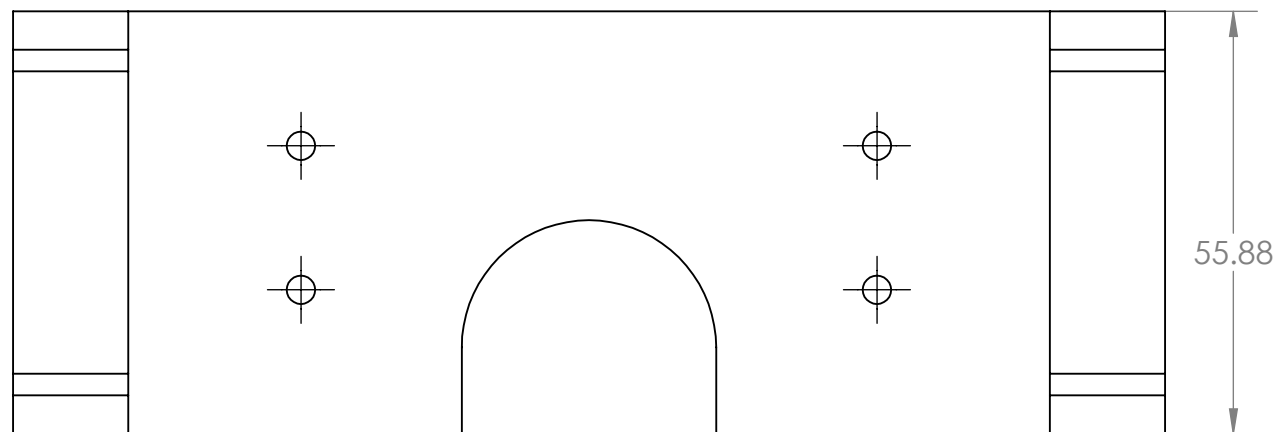
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		THREE PLACE DECIMAL ±	COMMENTS:			
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NEXT ASSY	USED ON	FINISH				
APPLICATION		DO NOT SCALE DRAWING				

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