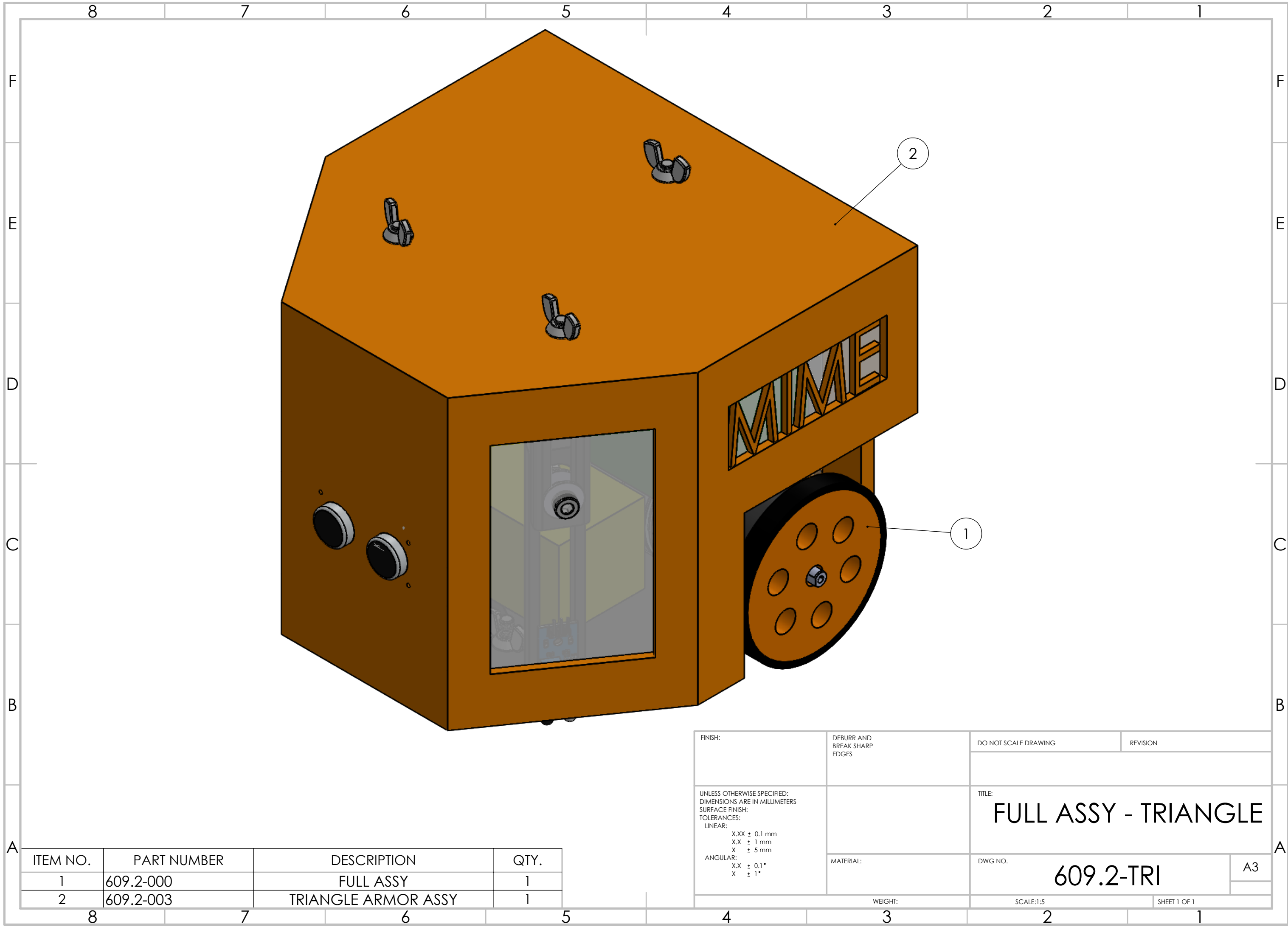


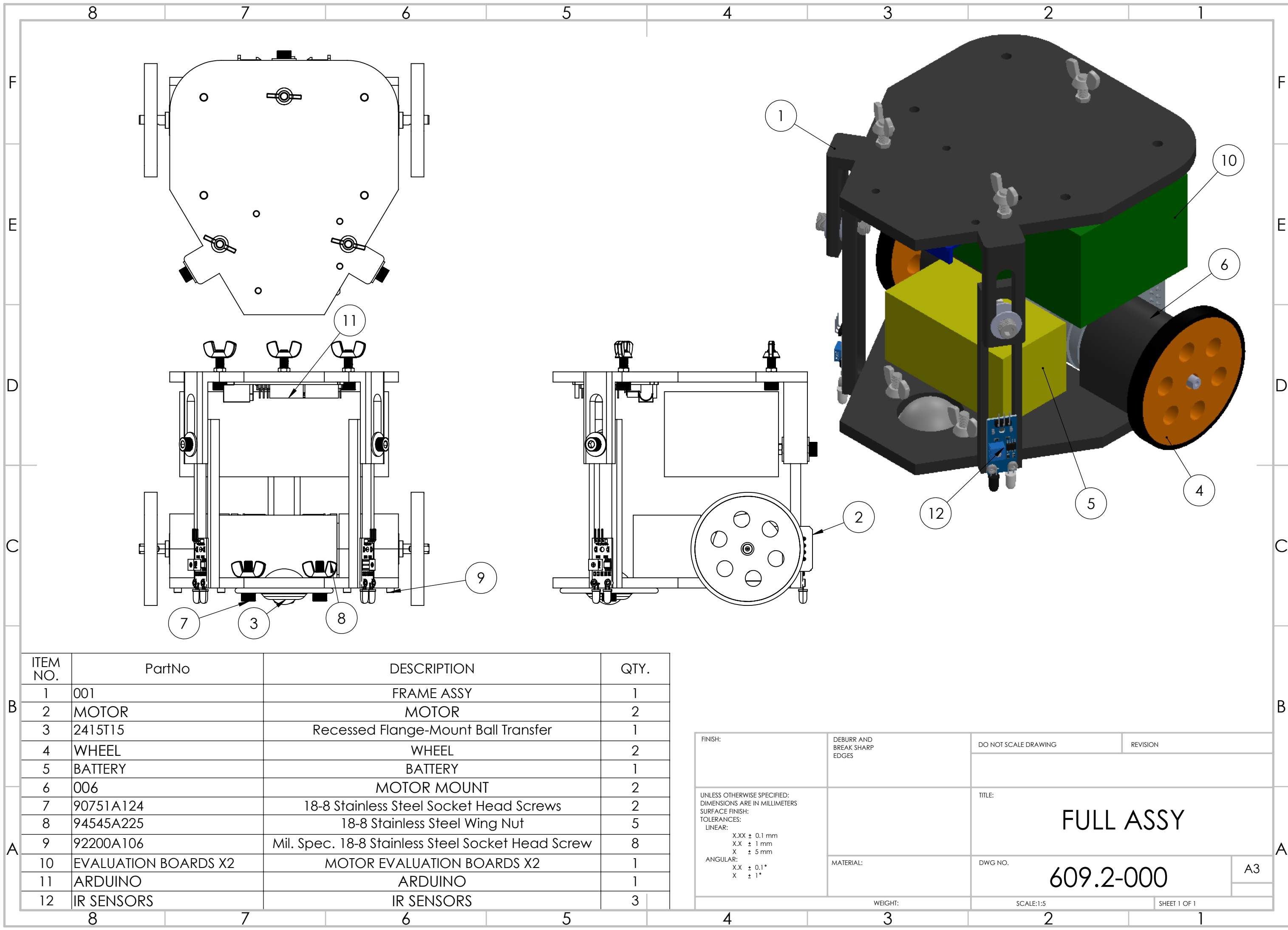
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	609.2-000	FULL ASSY	1
2	609.2-002	OCTAGON ARMOR ASSY	1

FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: FULL ASSY- OCTAGON	
	MATERIAL:	DWG NO. 609.2-OCT	A3
	WEIGHT:	SCALE:1:5	SHEET 1 OF 1



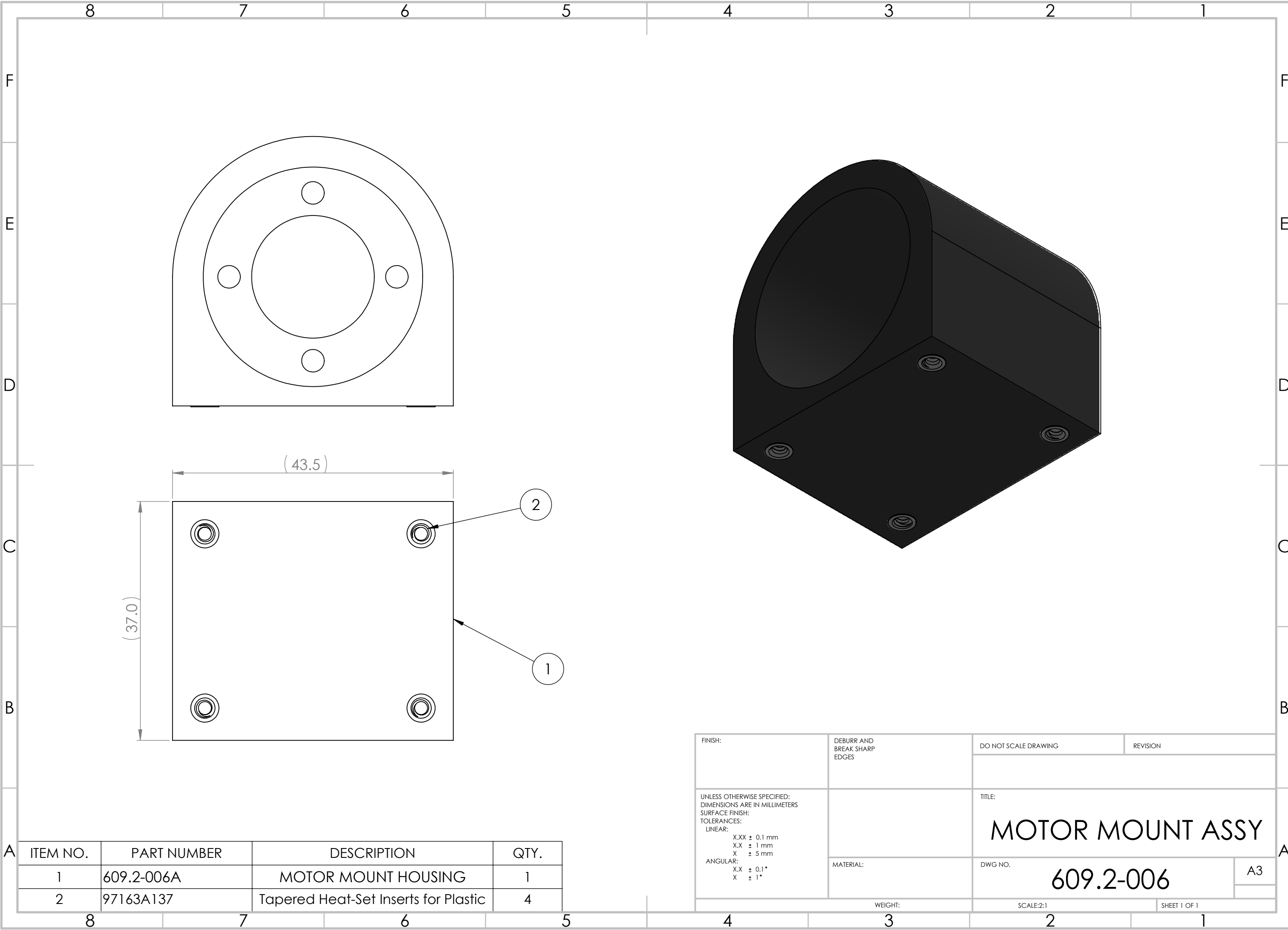
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	609.2-000	FULL ASSY	1
2	609.2-003	TRIANGLE ARMOR ASSY	1

FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°	MATERIAL:	TITLE: FULL ASSY - TRIANGLE	
		DWG NO. 609.2-TRI	A3
		WEIGHT:	SCALE:1:5 SHEET 1 OF 1



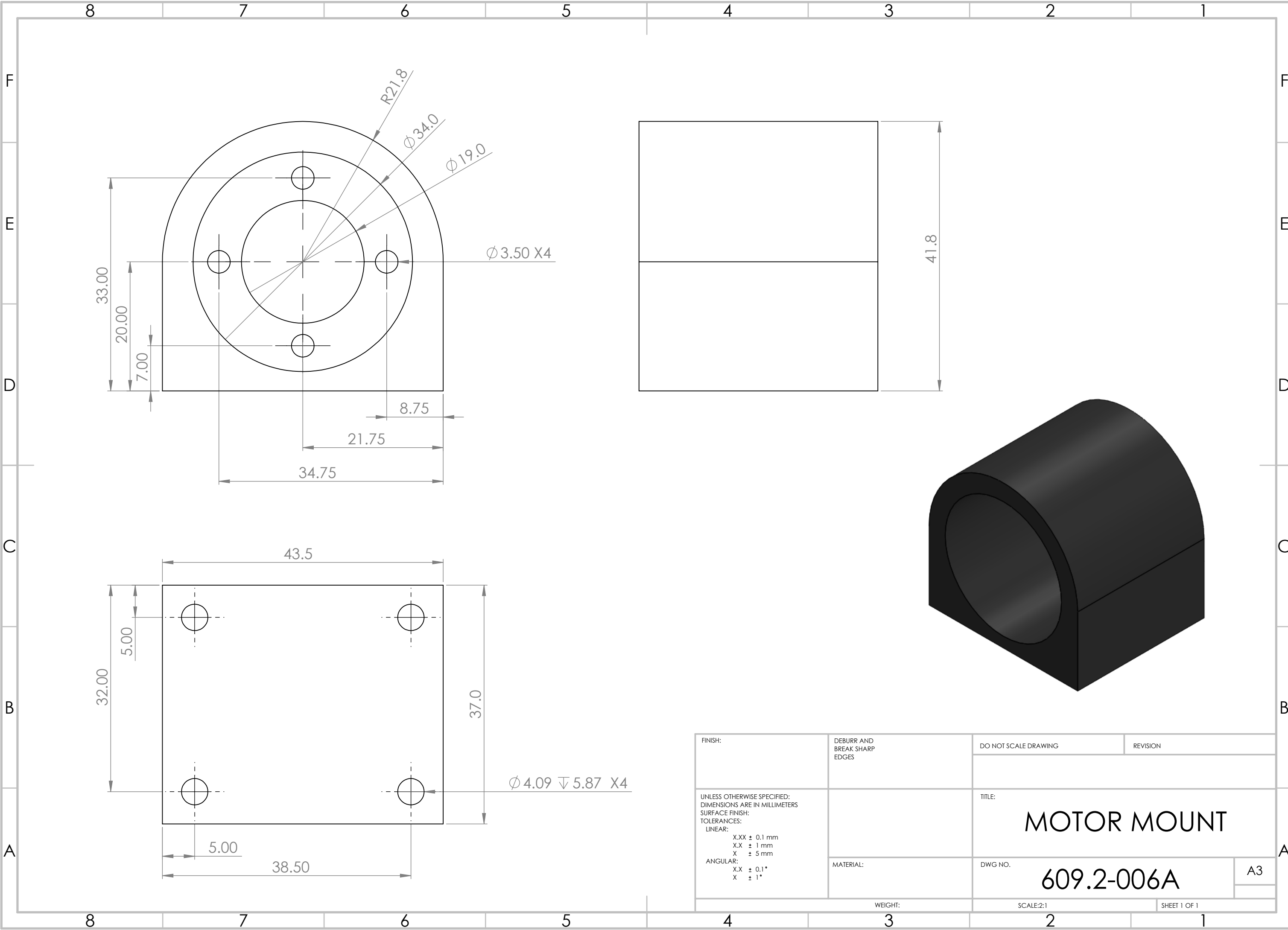
ITEM NO.	PartNo	DESCRIPTION	QTY.
1	001	FRAME ASSY	1
2	MOTOR	MOTOR	2
3	2415T15	Recessed Flange-Mount Ball Transfer	1
4	WHEEL	WHEEL	2
5	BATTERY	BATTERY	1
6	006	MOTOR MOUNT	2
7	90751A124	18-8 Stainless Steel Socket Head Screws	2
8	94545A225	18-8 Stainless Steel Wing Nut	5
9	92200A106	Mil. Spec. 18-8 Stainless Steel Socket Head Screw	8
10	EVALUATION BOARDS X2	MOTOR EVALUATION BOARDS X2	1
11	ARDUINO	ARDUINO	1
12	IR SENSORS	IR SENSORS	3

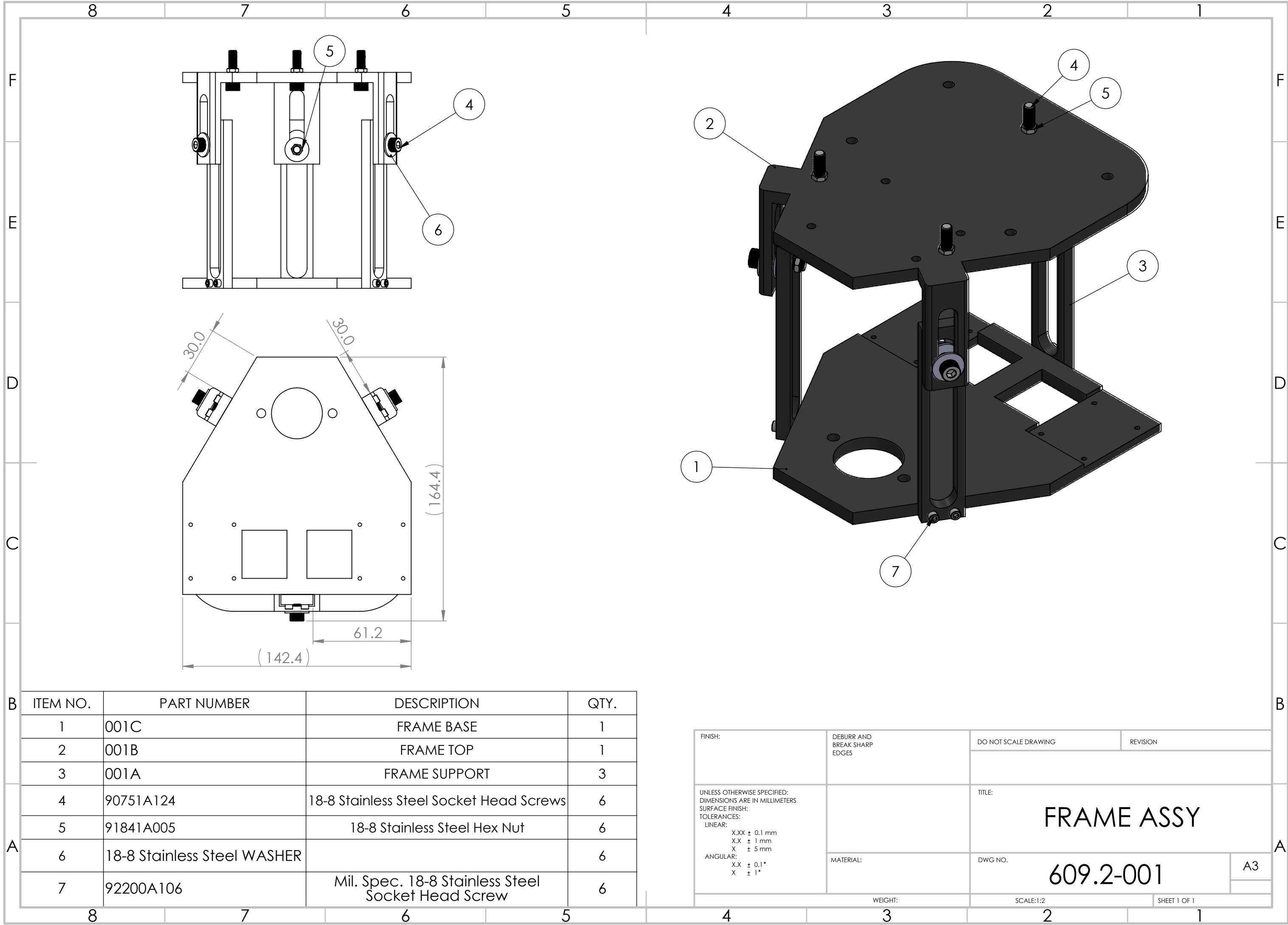
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: FULL ASSY	
	MATERIAL:	DWG NO. 609.2-000	A3
	WEIGHT:	SCALE:1:5	SHEET 1 OF 1

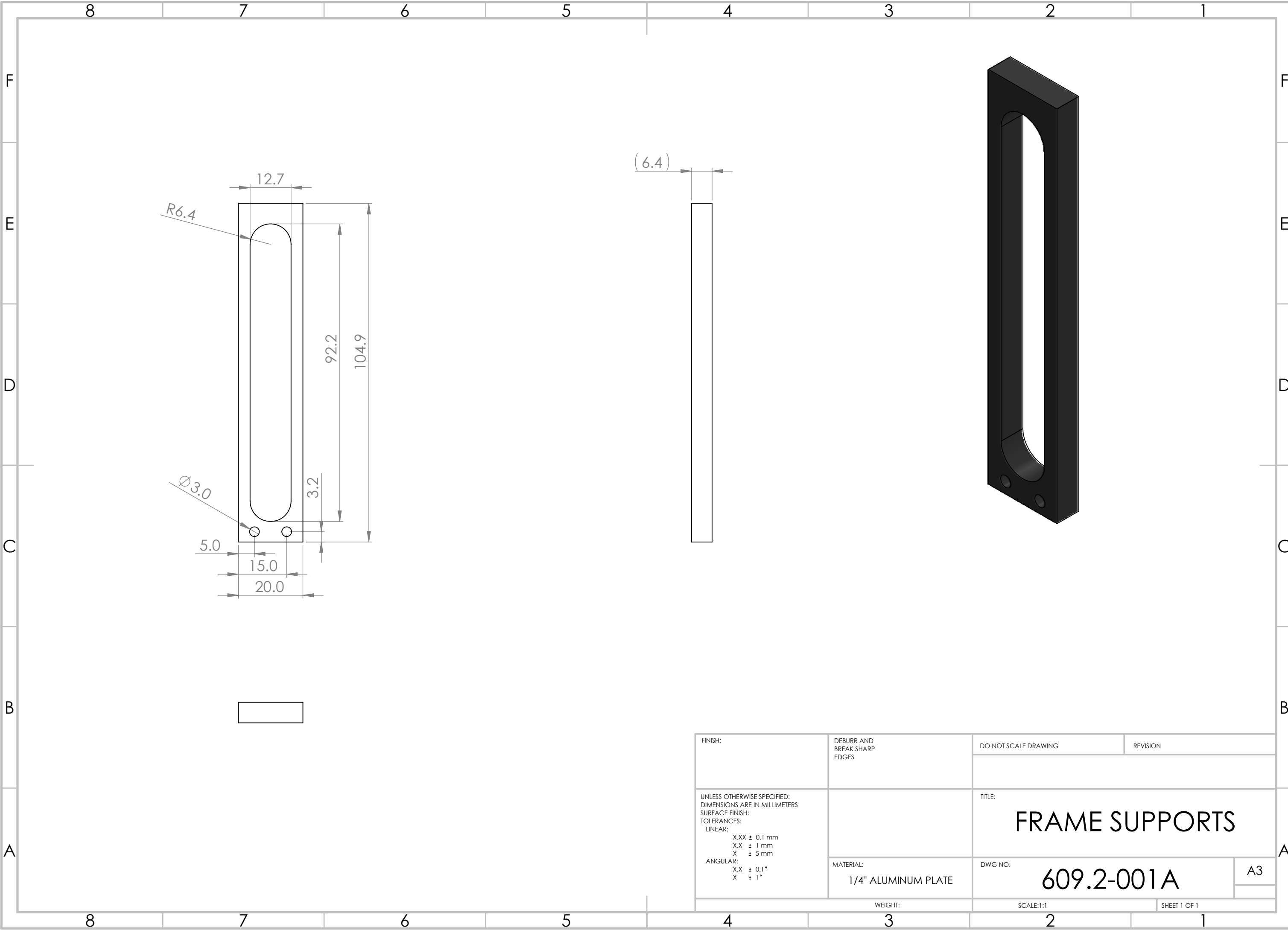


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	609.2-006A	MOTOR MOUNT HOUSING	1
2	97163A137	Tapered Heat-Set Inserts for Plastic	4

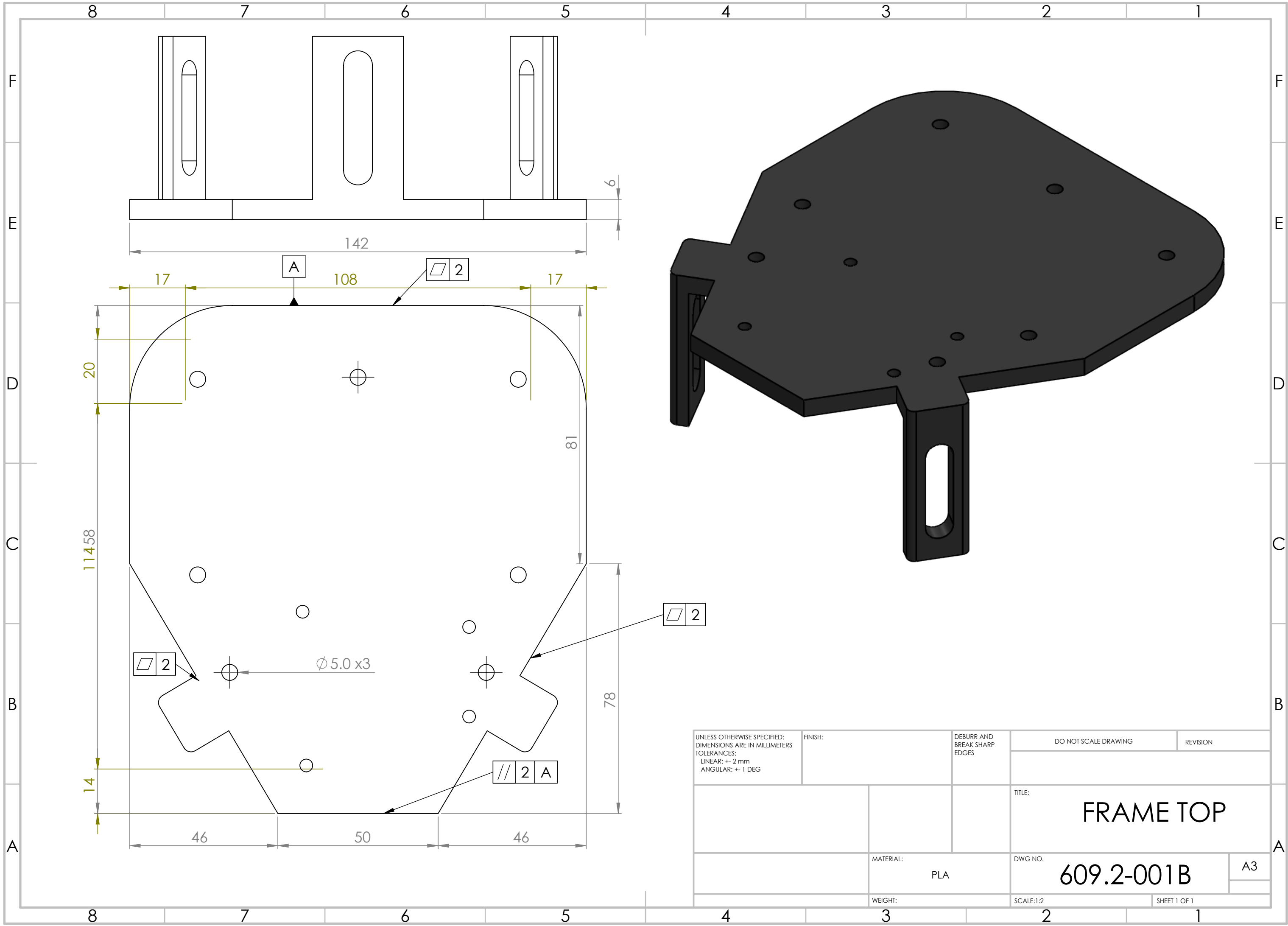
FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: MOTOR MOUNT ASSY	
	MATERIAL:	DWG NO. 609.2-006	A3
WEIGHT:		SCALE:2:1	SHEET 1 OF 1



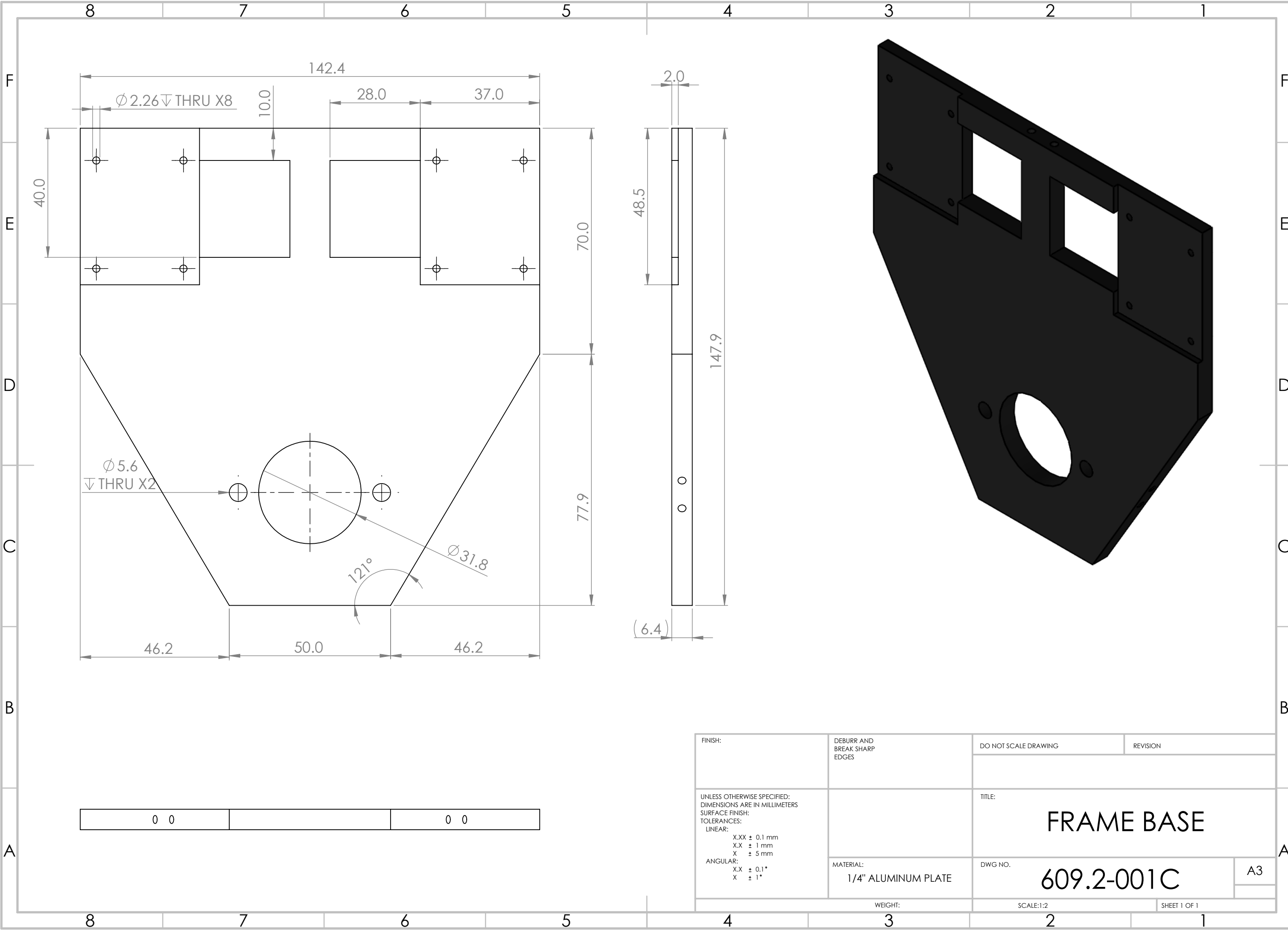


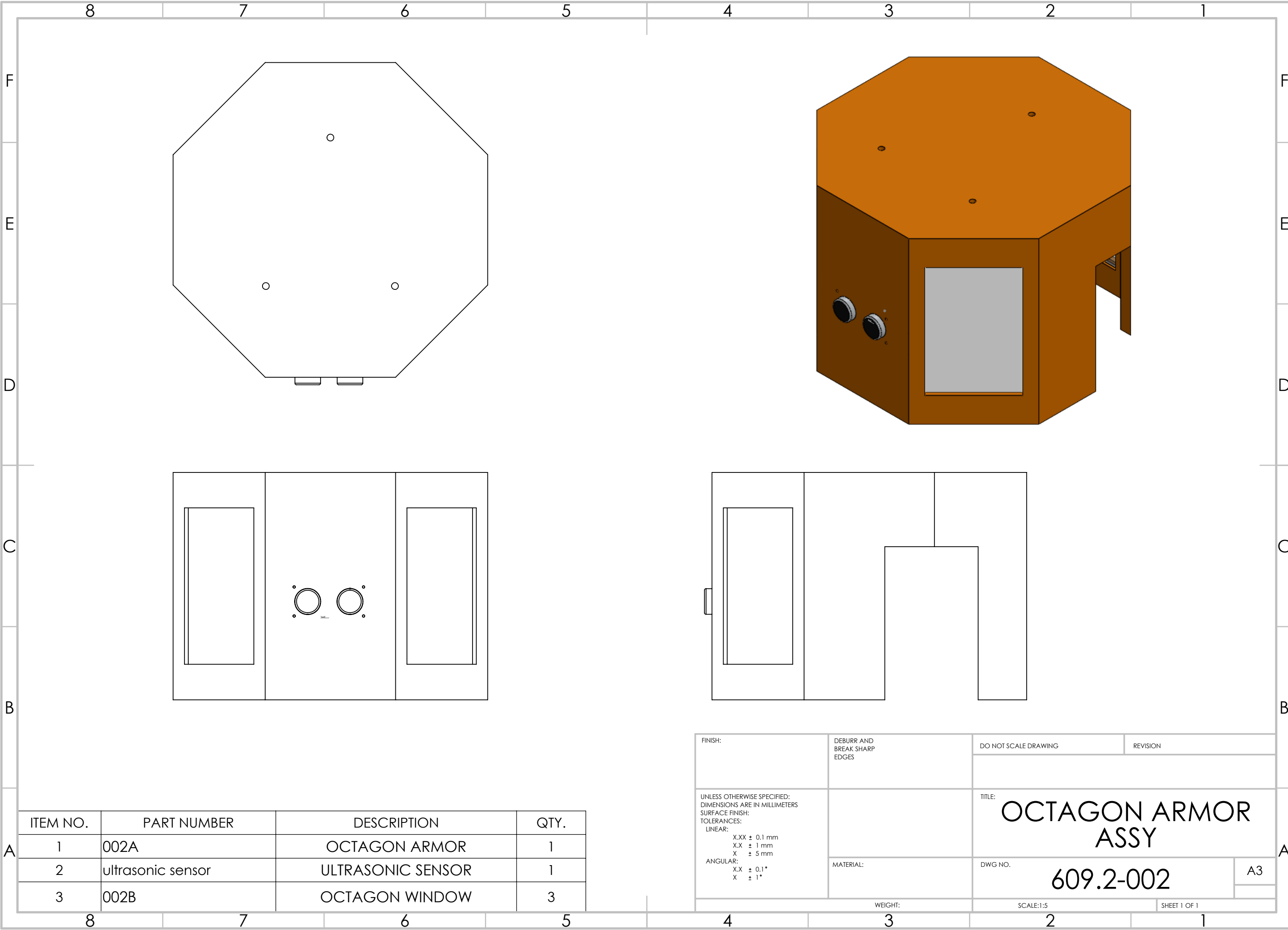


FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: FRAME SUPPORTS		
		MATERIAL: 1/4" ALUMINUM PLATE	DWG NO. 609.2-001A	A3
	WEIGHT:	SCALE:1:1		SHEET 1 OF 1



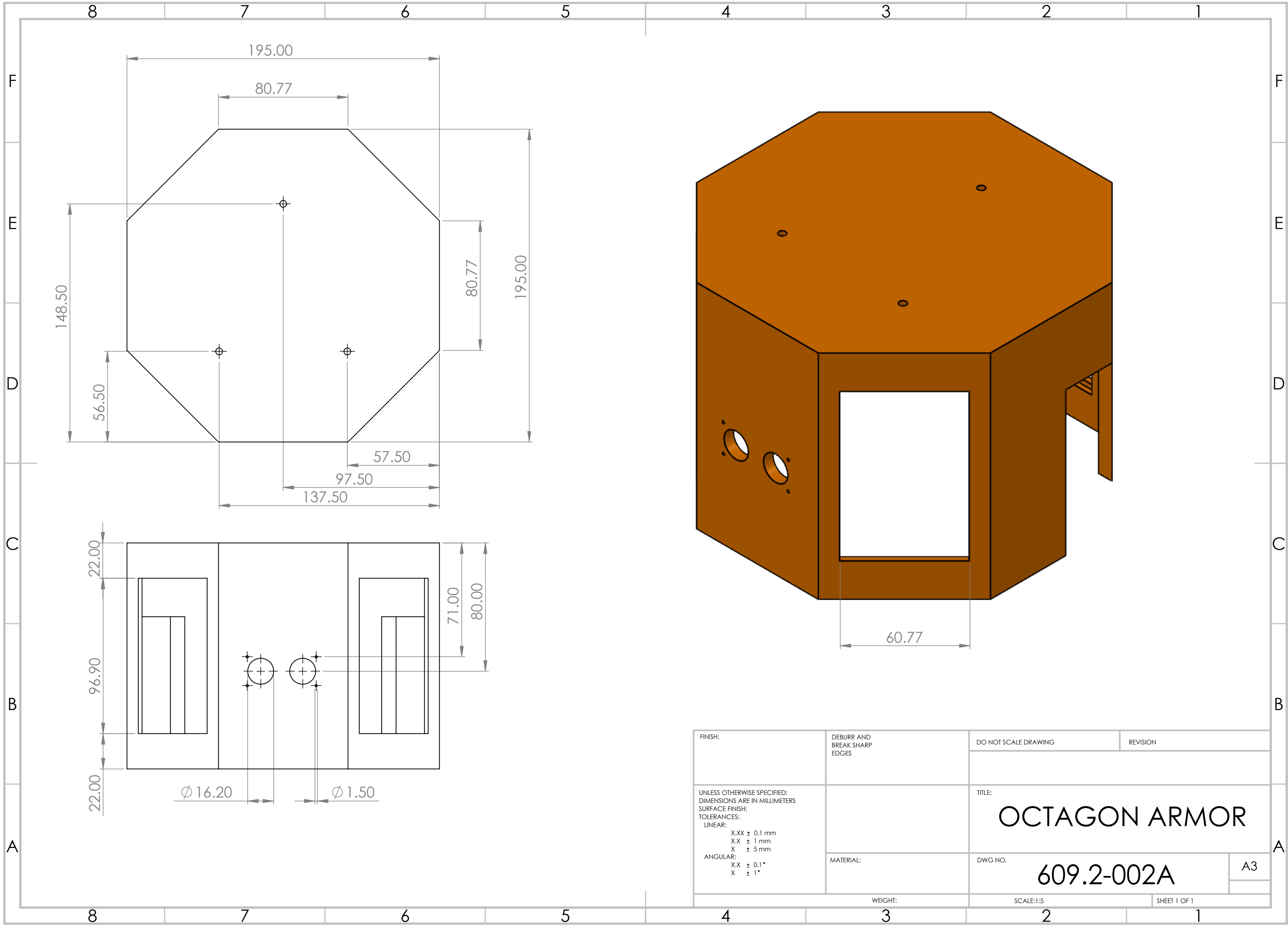
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			TITLE: FRAME TOP		
	MATERIAL: PLA		DWG NO. 609.2-001B		A3
	WEIGHT:		SCALE:1:2		SHEET 1 OF 1

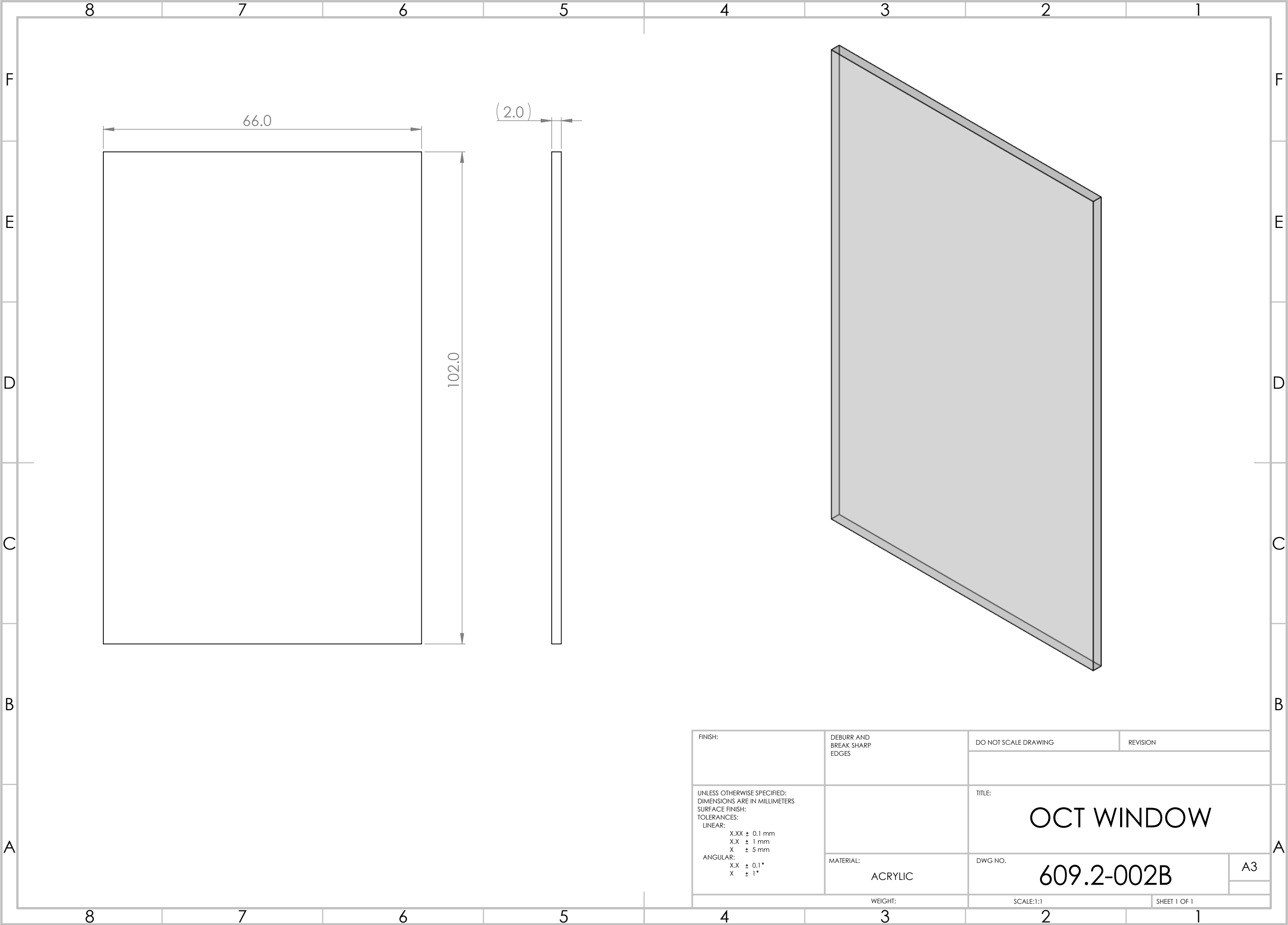


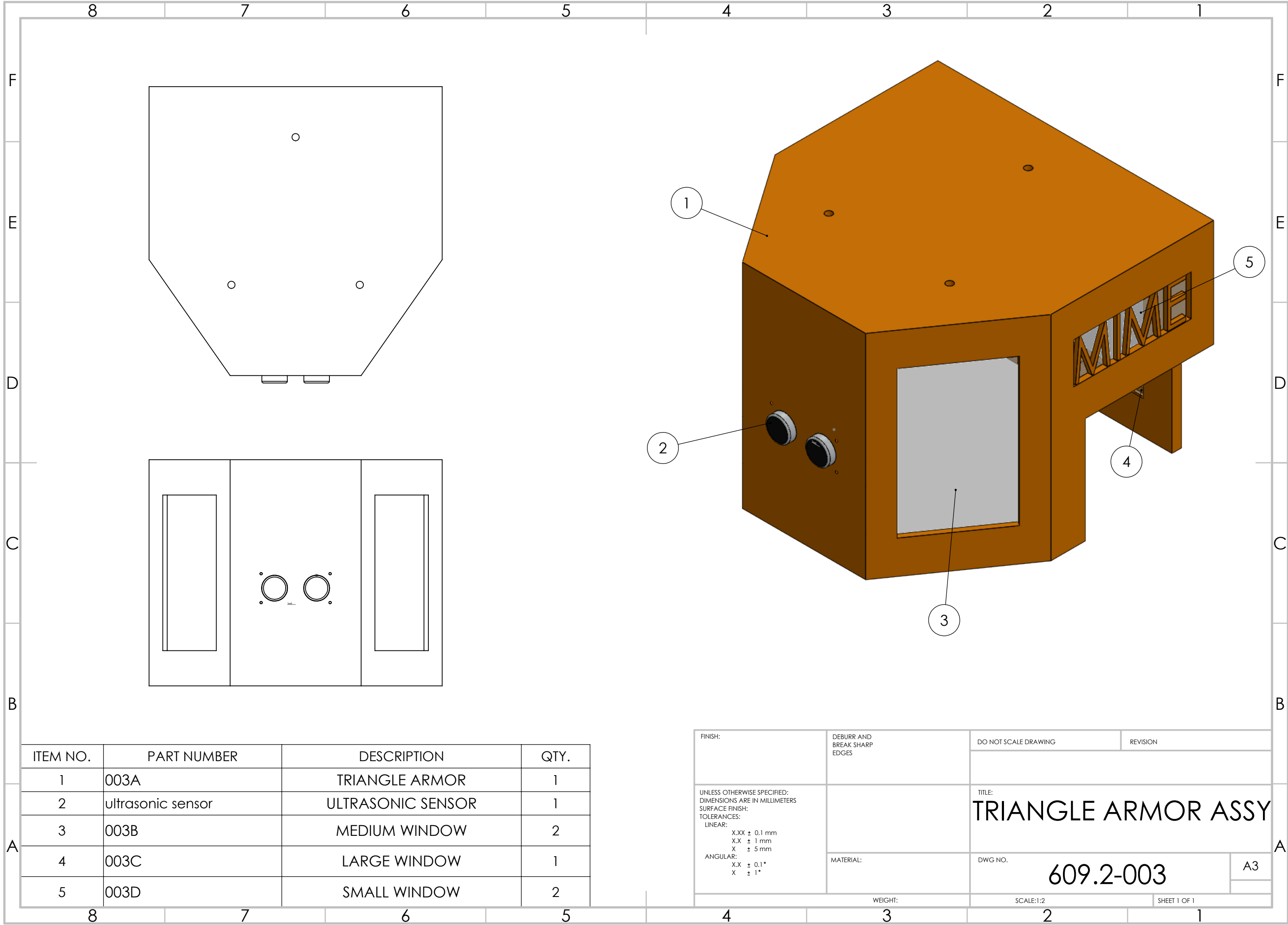


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	002A	OCTAGON ARMOR	1
2	ultrasonic sensor	ULTRASONIC SENSOR	1
3	002B	OCTAGON WINDOW	3

FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING		REVISION	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: OCTAGON ARMOR ASSY			
		MATERIAL:		DWG NO. 609.2-002	
				A3	
WEIGHT:		SCALE:1:5		SHEET 1 OF 1	

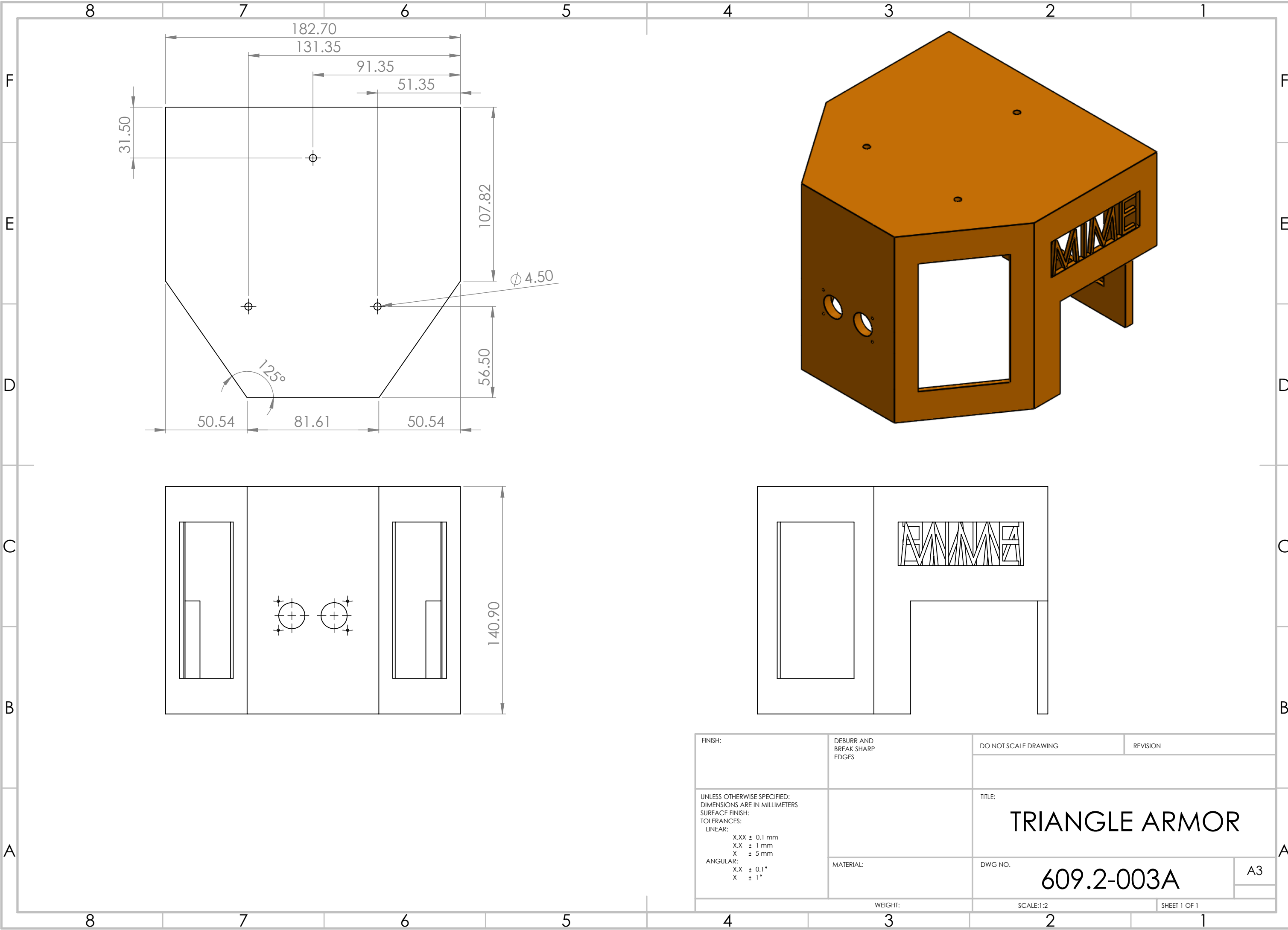




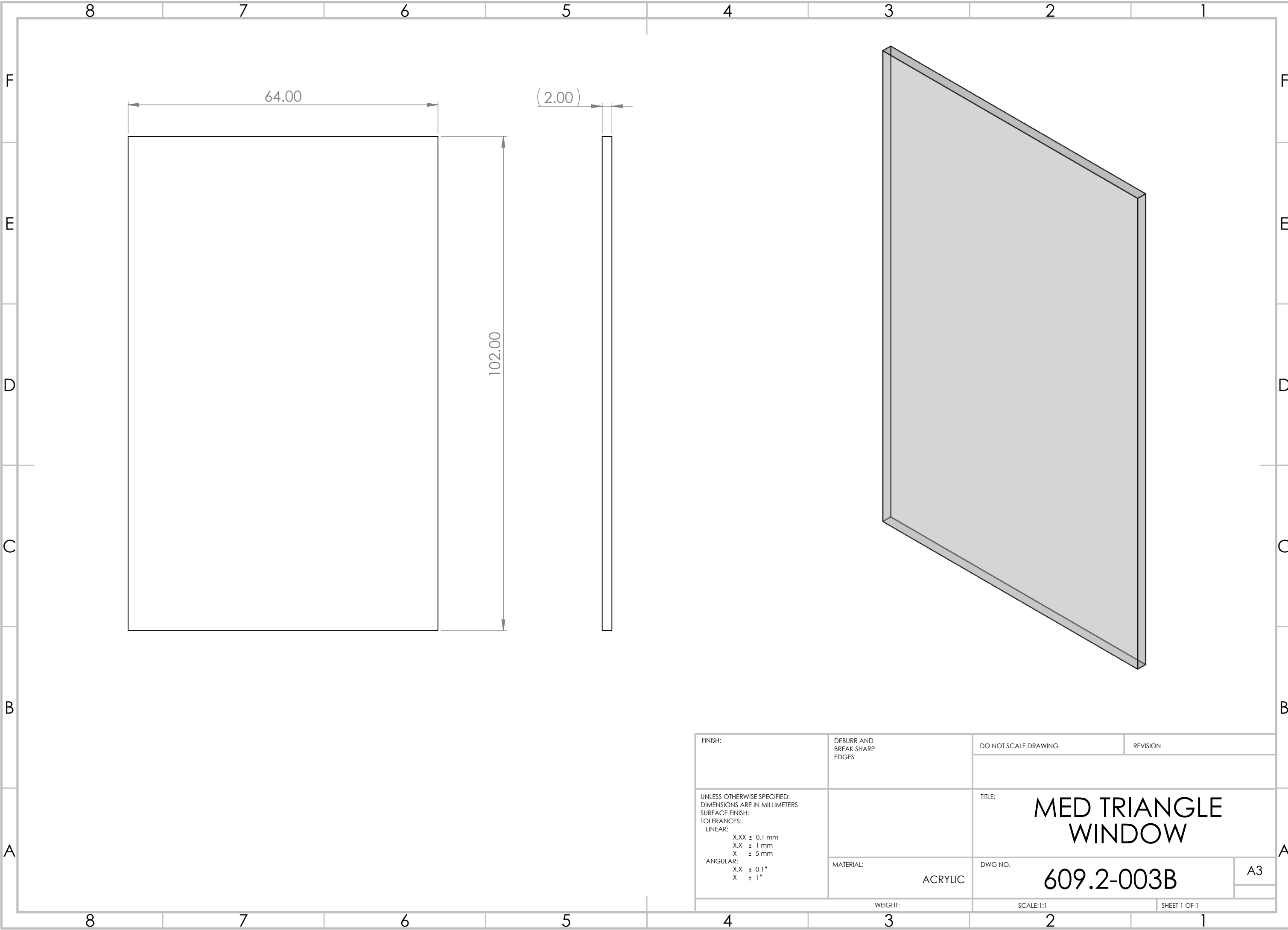


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	003A	TRIANGLE ARMOR	1
2	ultrasonic sensor	ULTRASONIC SENSOR	1
3	003B	MEDIUM WINDOW	2
4	003C	LARGE WINDOW	1
5	003D	SMALL WINDOW	2

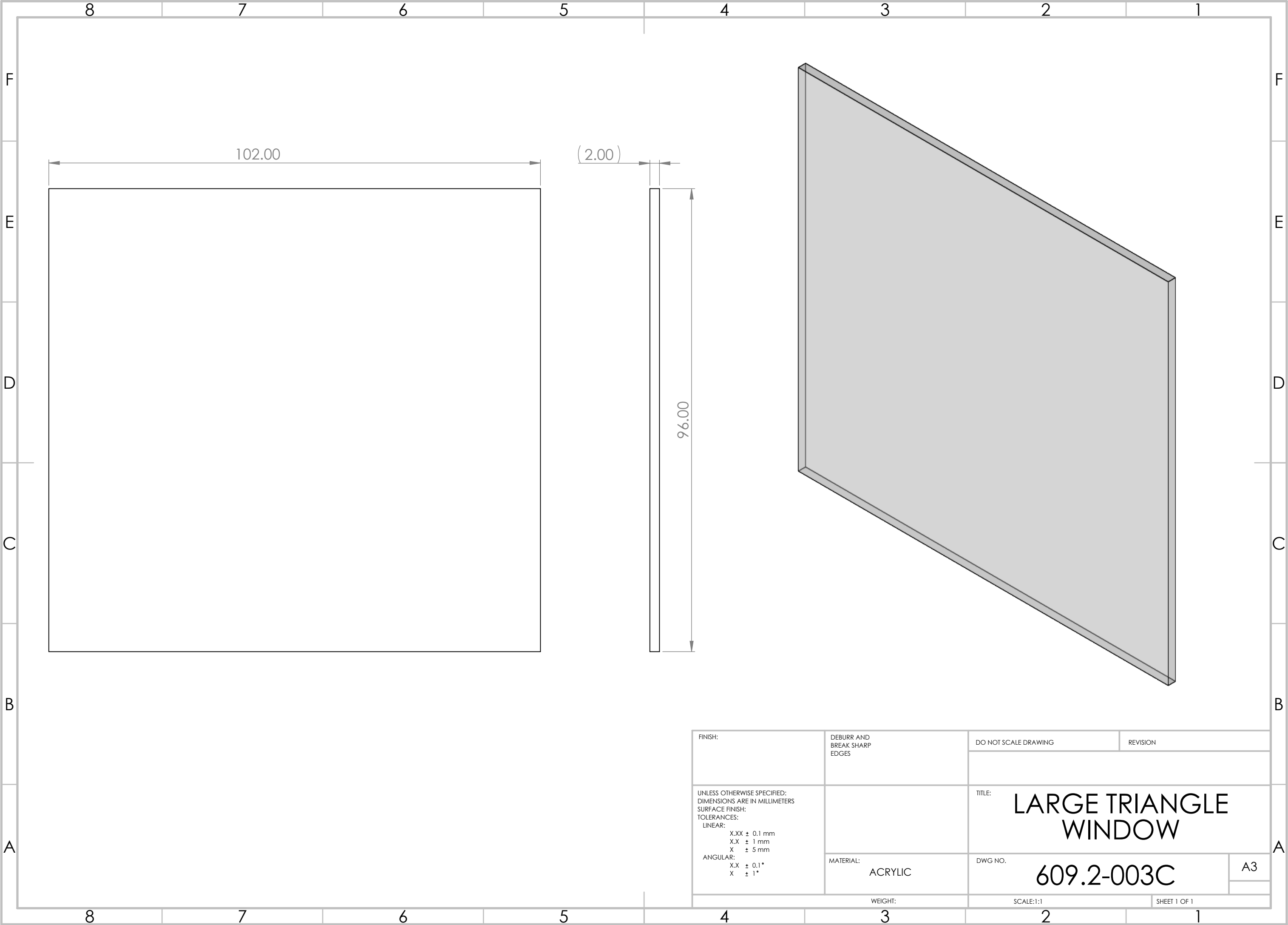
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: TRIANGLE ARMOR ASSY				
		MATERIAL:			DWG NO. 609.2-003	A3
WEIGHT:		SCALE:1:2			SHEET 1 OF 1	



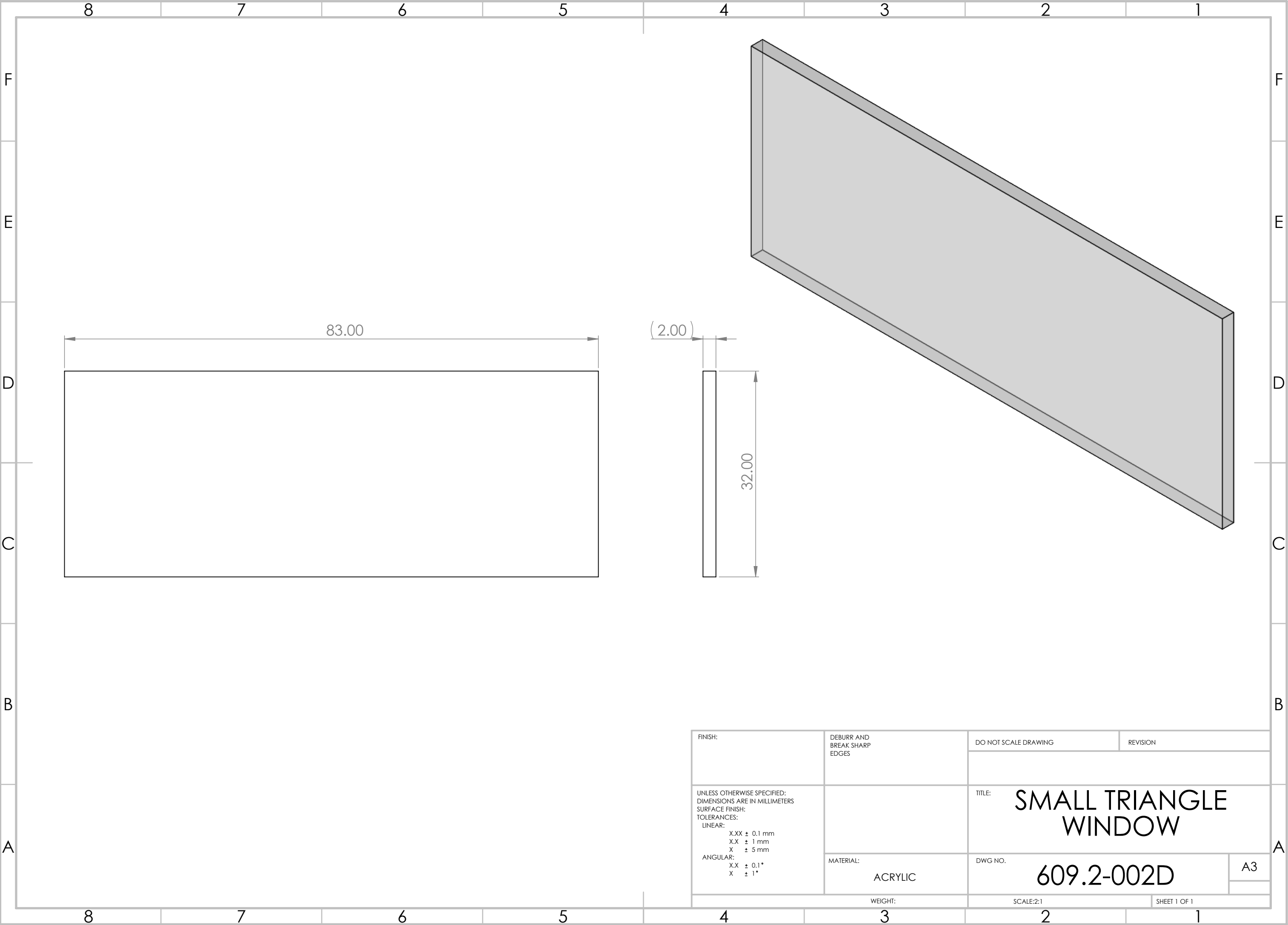
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: TRIANGLE ARMOR			
		MATERIAL:		DWG NO. 609.2-003A	
	WEIGHT:		SCALE:1:2		SHEET 1 OF 1



FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING		REVISION	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: MED TRIANGLE WINDOW			
		MATERIAL: ACRYLIC		DWG NO. 609.2-003B	
				A3	
	WEIGHT:		SCALE:1:1		SHEET 1 OF 1

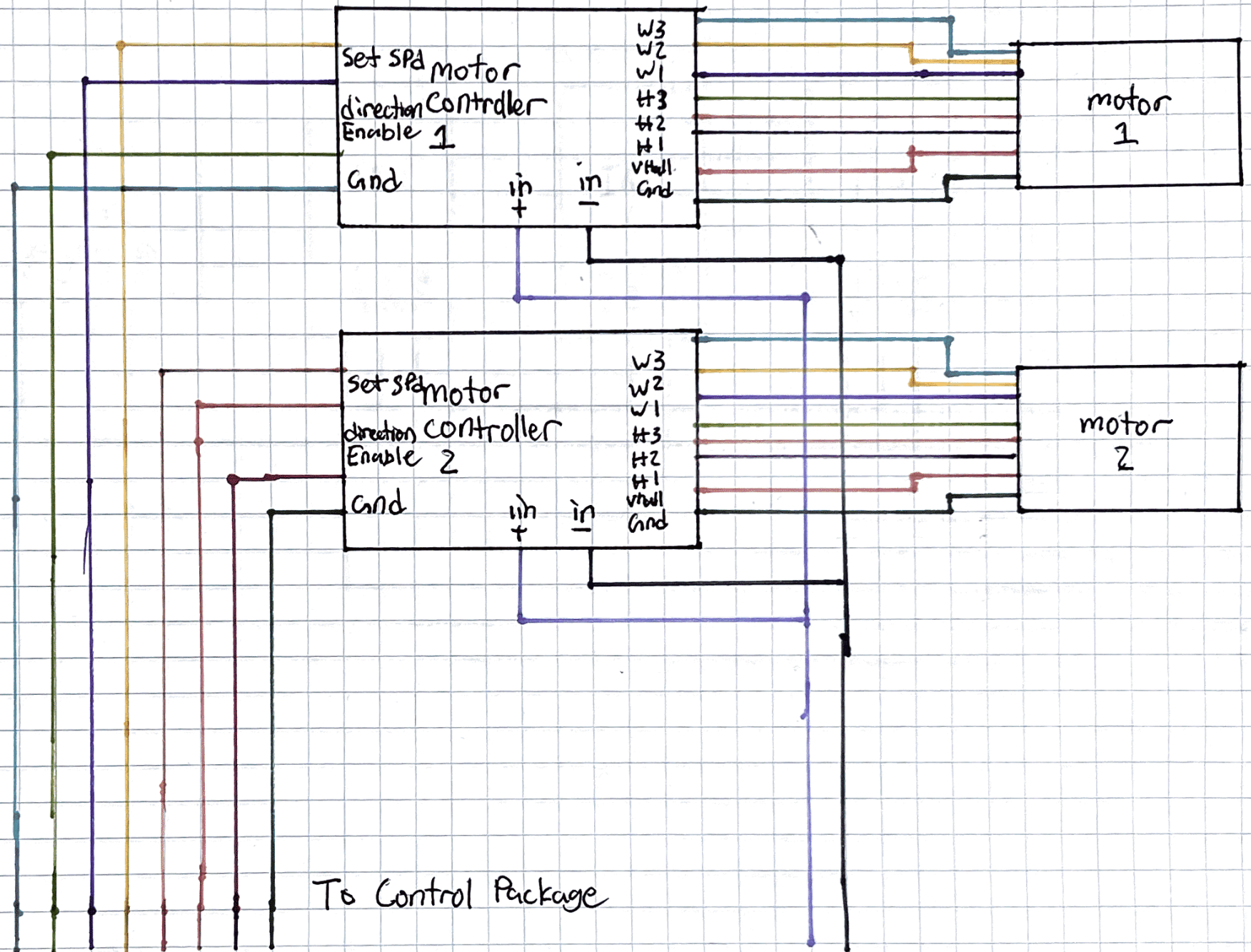


FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING		REVISION		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°		TITLE: <div>LARGE TRIANGLE WINDOW</div>				
		MATERIAL: <div>ACRYLIC</div>		DWG NO. <div>609.2-003C</div>		A3
WEIGHT:		SCALE:1:1			SHEET 1 OF 1	

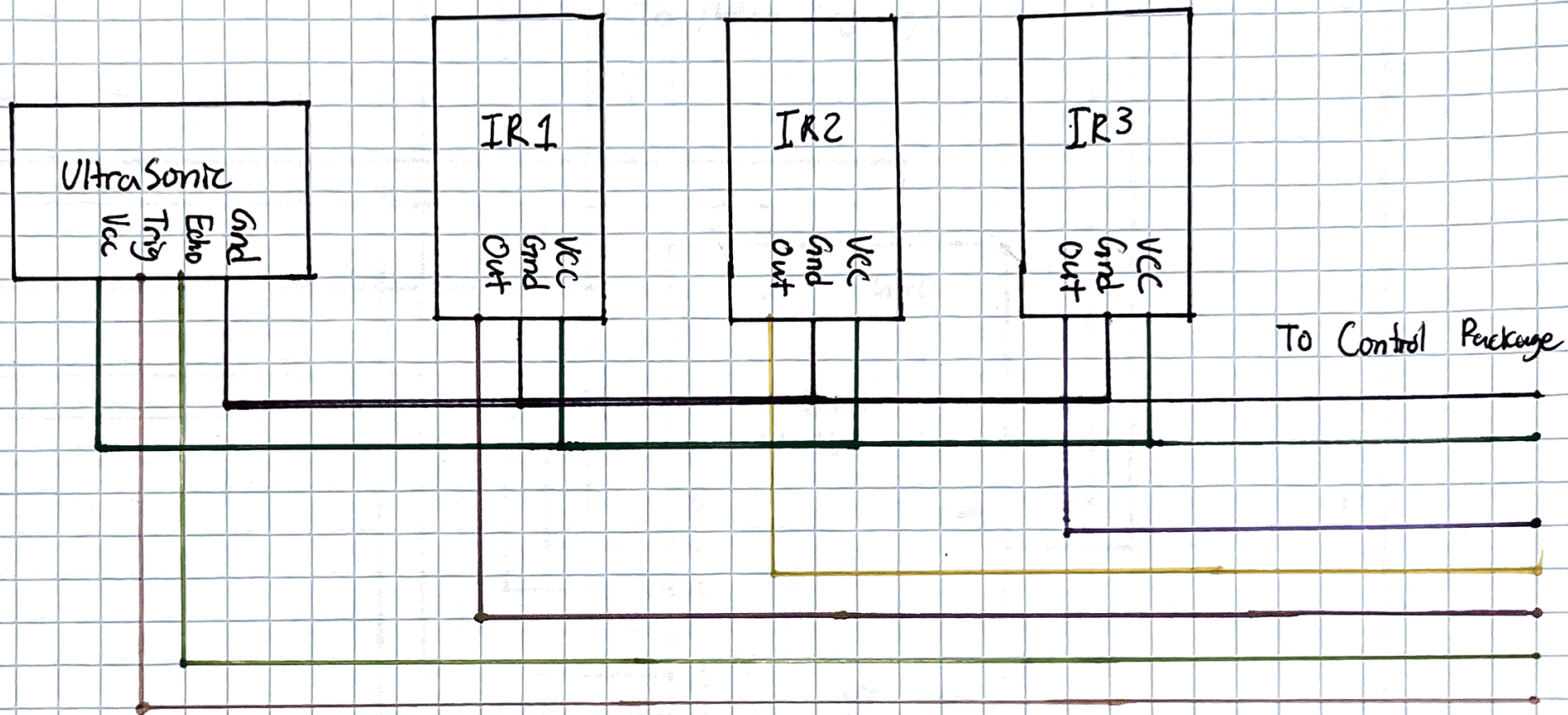


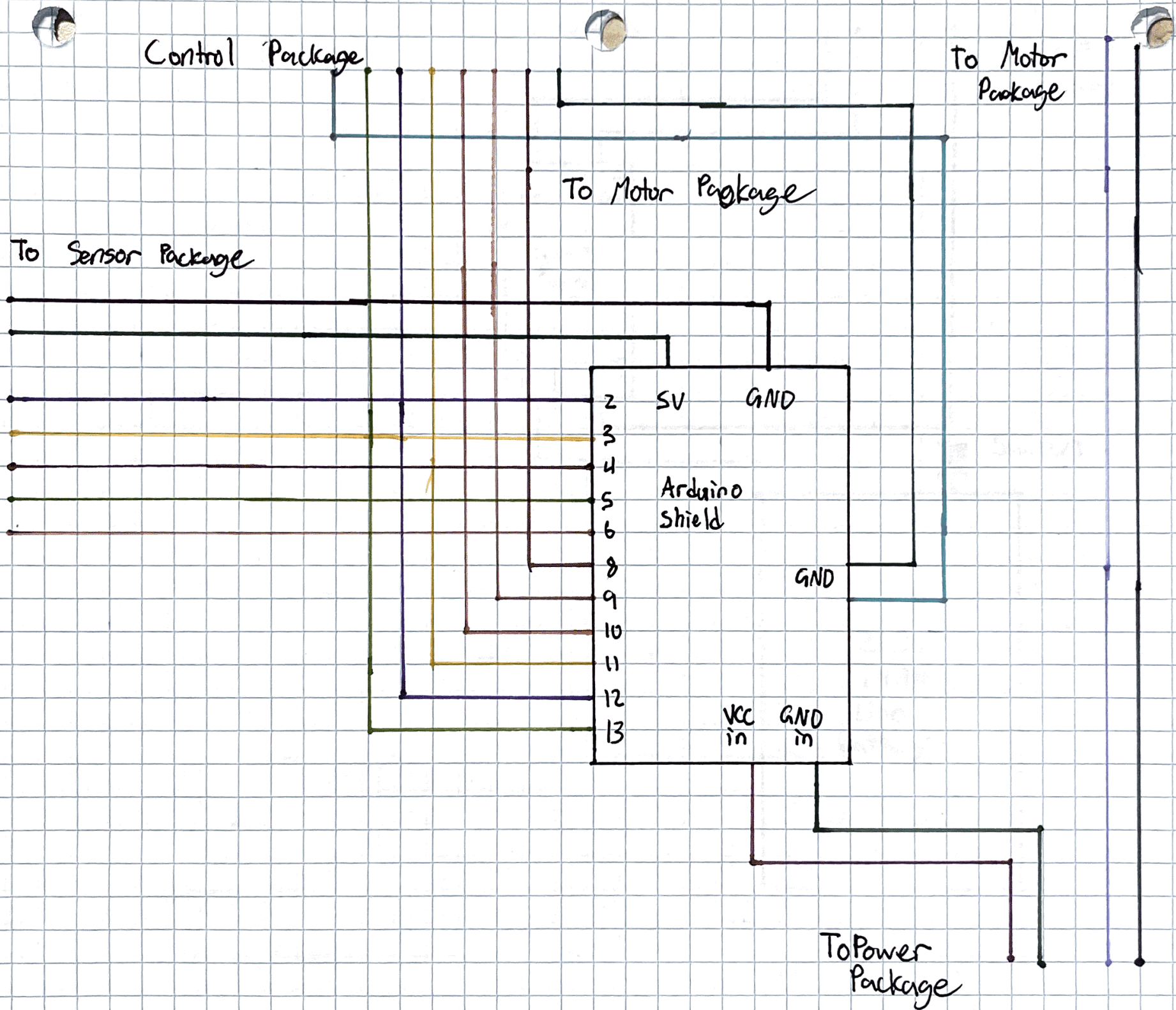
FINISH:	DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING		REVISION	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: X.XX ± 0.1 mm X.X ± 1 mm X ± 5 mm ANGULAR: X.X ± 0.1° X ± 1°	TITLE: SMALL TRIANGLE WINDOW				
	MATERIAL: ACRYLIC		DWG NO. 609.2-002D		A3
WEIGHT:		SCALE:2:1			SHEET 1 OF 1

Motor Package

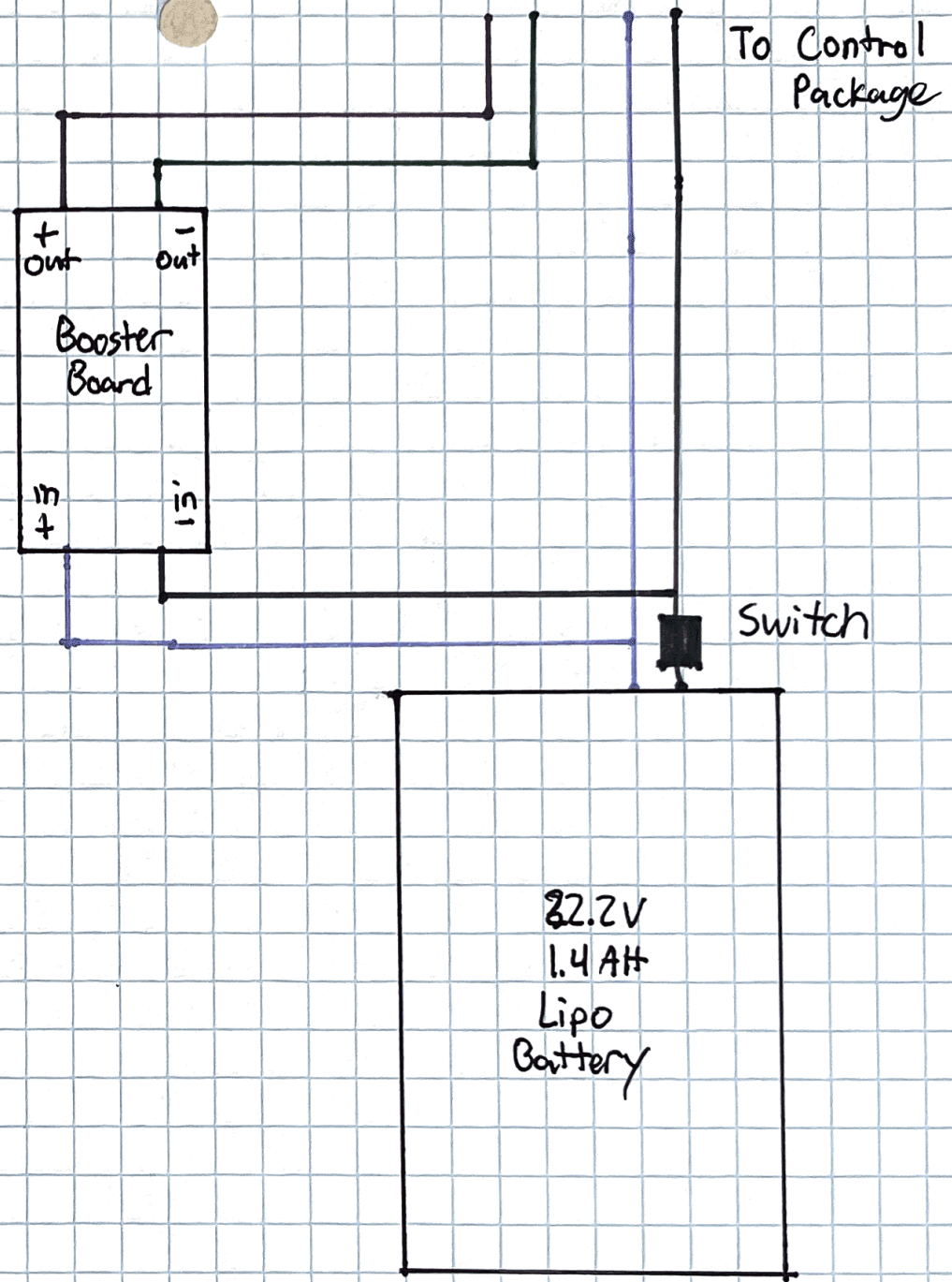


Sensor Package





Power Package



609.2 Final Bill of Materials

ITEM	MANUFACTURER	PART NUMBER	TYPE OF COMPONENT	COST	QUANTITY	TOTAL COST
22.2V 1.4ah Lipo Battery	Tattu R-Line	TAA14006S13X6	ELECTRICAL	\$39.99	2	\$79.98
Buck-Boost Regulator	Dkplnt	XL6009	ELECTRICAL	\$11.99	1	\$11.99
XT60 Connector	RioRand	RR-5PC-XT-60	ELECTRICAL	\$5.99	1	\$5.99
18 Gauge Wire	Fermerry	B089CVRX42	ELECTRICAL	\$19.99	1	\$19.99
Arduino	Arduino	A000066	ELECTRICAL	\$0.00	1	\$0.00
Scotch-Mount Indoor Double-Sided Mounting Tape	Scotch	314H-MED	ELECTRICAL	\$4.79	1	\$4.79
Shrink Tubing	DHOOZ	B0BLK98LBM	ELECTRICAL	\$7.99	1	\$7.99
Wire Jumper Cable Pin Header	CHENBO	WJ-Z01	ELECTRICAL	\$9.29	1	\$9.29
Brass Standoffs	Dana Fred	XHHD17009	ELECTRICAL	\$11.99	1	\$11.99
Soldering Board	E Blocks	EB01630	ELECTRICAL	\$2.00	1	\$2.00
Jumper Cable	ELEGOO	B01EV70C78	ELECTRICAL	\$0.00	1	\$0.00
Arduino Shield	Adafruit	B00N426HCG	ELECTRICAL	\$0.00	1	\$0.00
Frame Base	Mcmaster Carr	8975K142	FRAME	\$74.21	1	\$74.21
Plexiglass	Calpalmy	B09WHVF3SN	FRAME	\$14.59	1	\$14.59
M5 Screw	Mcmaster Carr	90751A124	FRAME	\$16.53	5	\$16.53
Threaded inserts	Mcmaster Carr	97163A137	FRAME	\$5.89	8	\$5.89
Wing Nuts	Mcmaster Carr	94545A225	FRAME	\$6.89	5	\$6.89
4-40 Screws	Mcmaster Carr	92200A106	FRAME	\$3.66	8	\$3.66
3D Printed Motor Mount	OSU	-	FRAME	\$0.00	2	\$0.00
3D Printed Frame Top	OSU	-	FRAME	\$0.00	1	\$0.00
Hexagon Armor	OSU	-	FRAME	\$0.00	1	\$0.00
Wheel	Parallax	28115	MOBILITY	\$3.99	2	\$7.98
Ball Wheel	Mcmaster Carr	2415T15	MOBILITY	\$9.38	1	\$9.38
Planetary Gearhed	Maxon	166158	MOTOR	\$0.00	2	\$0.00
EC 45 flat motor	Maxon	651607	MOTOR	\$0.00	2	\$0.00
Motor Controller	Maxon	367661	MOTOR	\$0.00	2	\$0.00
Evaluation Board	Maxon	370652	MOTOR	\$0.00	2	\$0.00
Cable with Connector	Maxon	354045	MOTOR	\$0.00	2	\$0.00
Infared Sensor	Daoki	TS-US-070-CA	SENSOR	\$5.99	1	\$5.99
Ultrasonic Sensor	ELEGOO	EL-SM-001	SENSOR	\$9.99	1	\$9.99
Digital Accelerometer	Sun Founder	ADXL345	SENSOR	\$6.99	1	\$6.99
Boat Rocker Switch	QTEATAK	B07Y1GDRQG	SENSOR	\$5.99	1	\$5.99
Shipping Estimate				\$100.00	1	\$100.00
						\$422.10