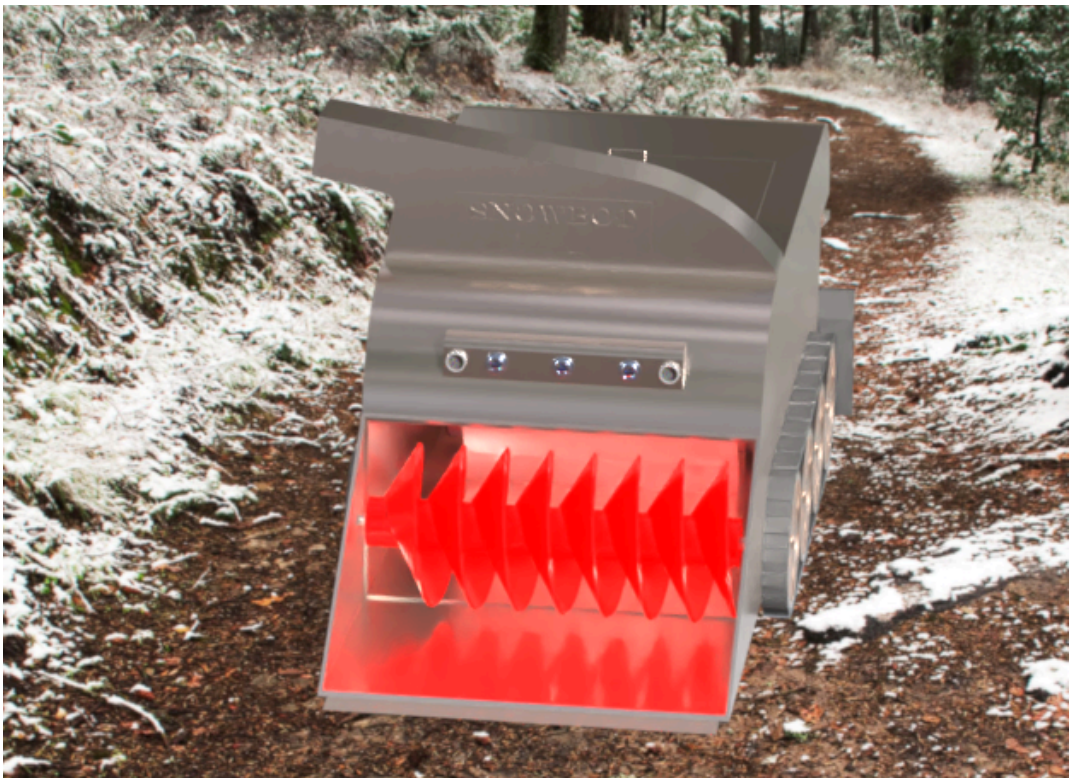
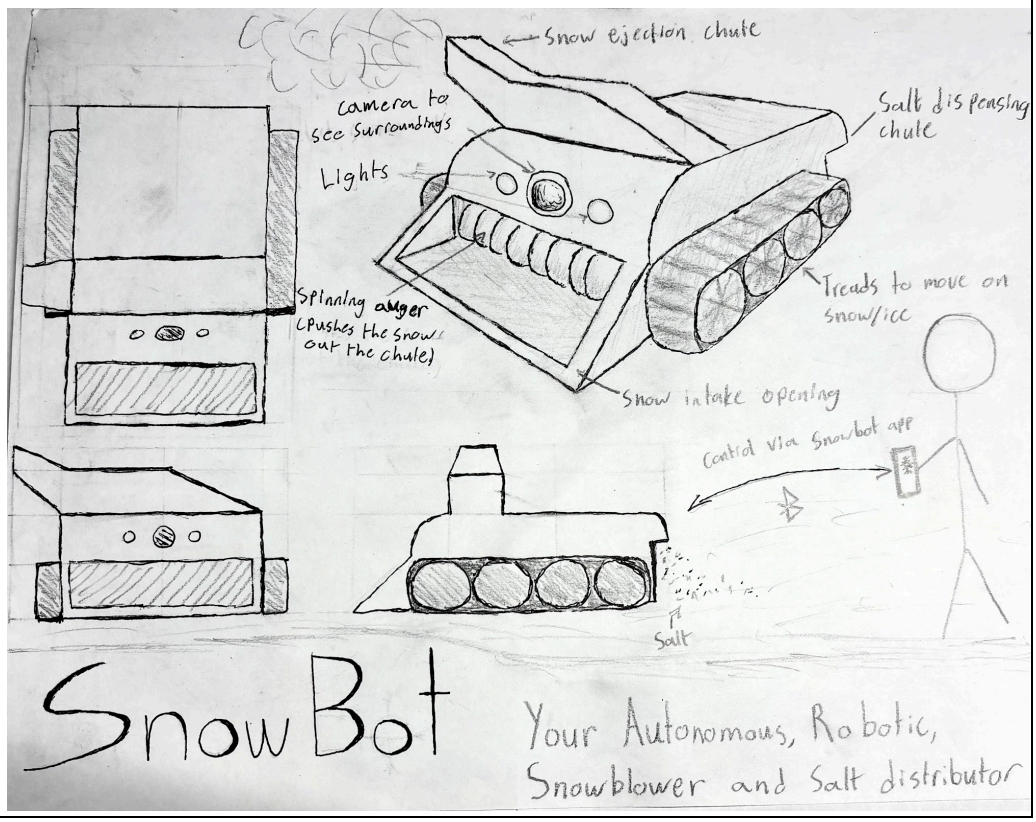
SnowBot



Austin Song, Adarsh Narayanan, Ella Camacho, Harsithkrishna Rajesh, Shyam Sivan
ME 1670-I
Spring 2026
Georgia Institute of Technology

Team Project Proposal

Section / Team Number	Section I / Team 5
Team Name:	Snowflakes
Team Members:	Adarsh Narayanan, Harsithkrishna Rajesh, Shyam Sivan, Ella Camacho, Austin Song
Proposed Project Title:	Snowblower Bot
Problem Rationale and Definition:	This autonomous, salt dispensing, snowblower robot helps clear snow and ice without the need of a human. This is helpful for when harsh conditions or slippery terrain make it difficult to clear roads/driveways by hand. These robots can work to clear snow and ice without human involvement, and can help mitigate the effects of winter storms. This invention can also help the elderly or disabled who can't physically clear snow by themselves. Whether it be for commercial, personal, or governmental use, the snowbot can make life in areas that experience heavy snow much easier and safer. 

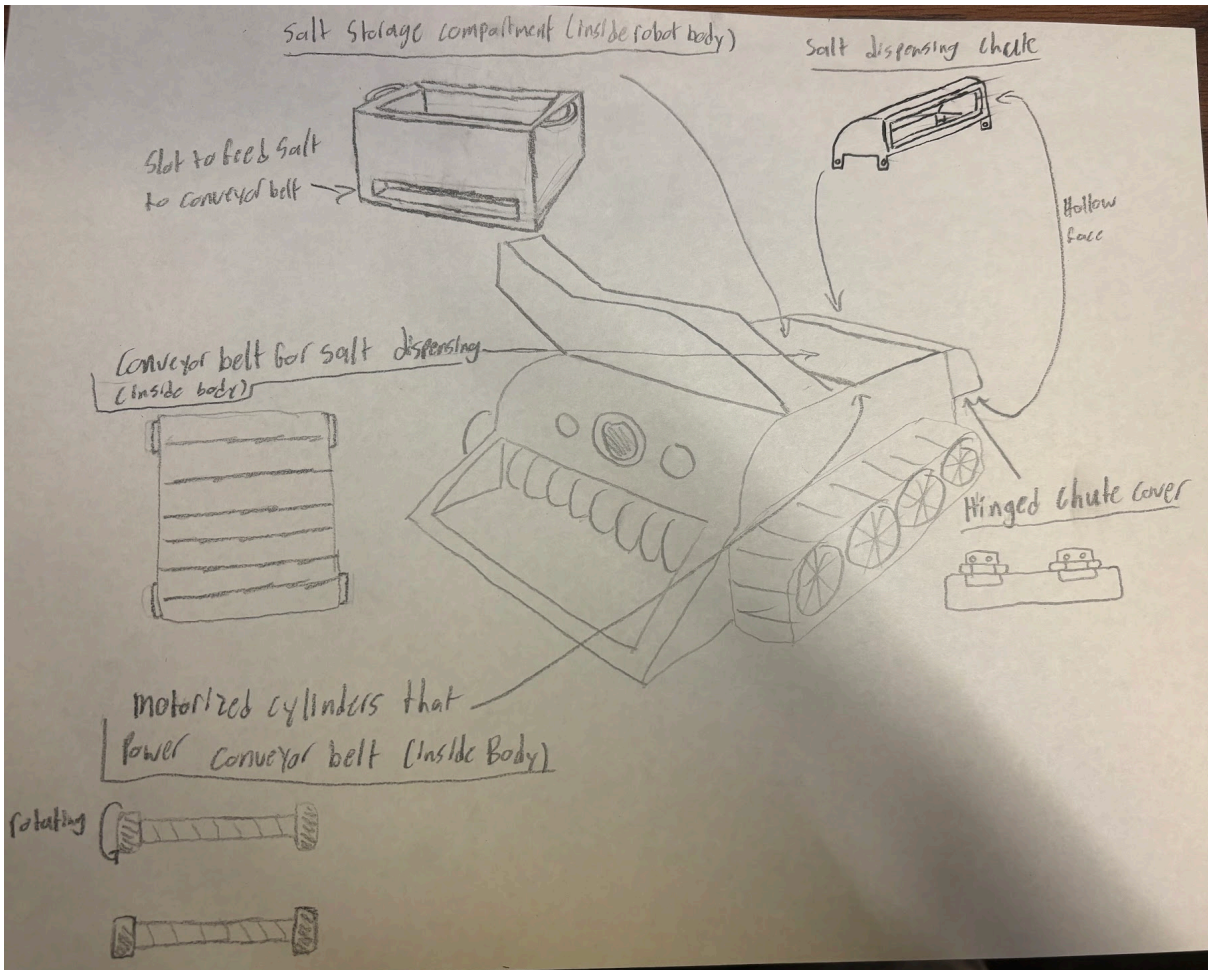
Argument for Level of Complexity/ Difficulty of Chosen Project:	We believe this project has a level of difficulty of 3. This is because we are required to create many parts that are within the scope of the course, but we are able to creatively combine and use different features to effectively produce our idea.
Potential Parts List:	Difficulty ratings are 1-5, 5 being hardest - Central body of the robot (2) - Front curved face (1) - Wheels that drive the treads (3) - Treads that fit over wheels (3) - Snow outflow chute (3) - Snow intake opening (3) - Snowblower auger that feeds snow in (5) - Axle and mounting for the auger (4) - Salt dispenser chute (2) - Flap that covers/opens the bottom of the chute for when the robot is/isn't actively dispensing salt (3) - Internal conveyor belt to dispense salt (3) - Motorized wheels that power the conveyor belt (4) - Internal salt storage compartment (2) - Openable lid to refill salt (4) - Latches to keep lid shut (5) - Solar panels for power (3) - Remote control for the robot (4) - Front Camera for the robot (2) - Lights (1) - Smaller rear camera (2) - Metal scraper plate at the bottom of intake to maximize snow clearing (2) - Interchangeable mount for the scraper plate to allow for replacement when it gets dull (5) - Rubber flaps behind treads to reduce kickback (1) - Charging plug to supplement solar panels (3) - Hinging cover for charging port (4)
Foreseeable Challenges in Modeling:	Describe any particularly challenging parts, features, modeling processes, or other aspects that you foresee as potentially difficult. - Modeling the auger will be difficult because of its unorthodox, screw like geometry - Modeling the treads and getting them to fit over the wheels properly will be hard - Getting functional hinge joints/latches will be difficult as we don't have experience with that yet

Roles	Create and assign roles that disperse power and responsibility across the team, e.g.: ● Project Manager – oversees the larger aspects of the project's coordination to ensure timely completion (Shyam Sivan) ● Task Alignment Manager – responsible for creating and delegating tasks that align with the project's objectives (Ella Camacho) ● Communications Manager – responsible for overseeing the team's communications and standards' enforcement (Harsith Rajesh) ● CAD Master – leads CAD design and offers guidance (Adarsh Narayanan) ● Workflow Tracker – responsible for making sure everyone is on track with their tasks and finishes necessary things on time (Austin Song)
Resources	List the resources you're planning to use to collaborate on the project, e.g.: ● Communication medium: **iMessage/Facetime** ● Writing medium: **Google Docs** ● Project timeline management: **Google Sheets Timeline** ● File-naming conventions: **Name and part description**
Communication Expectations	Our team is committed to maintaining clear, respectful, and consistent communication throughout the duration of the ME 1670 project. ● Team members will respond to messages within 4 working hours (Monday-Friday). ● Within 24 hours of a deadline, responses are expected within 3 hours, including weekends. ● We will primarily communicate through iMessages, and use Google Drive for shared documents. ● If a member anticipates being unavailable, they must notify the group in advance. ● Meeting agendas and action items will be documented to ensure accountability and clarity on responsibilities.
Conflict Resolution	We understand that disagreements or challenges may come up during the project and are committed to handling them respectfully and efficiently. ● Communication Issues: If there is confusion or miscommunication, we will address it directly with the person involved and clarify expectations. ● Performance Concerns: If a team member is falling behind, we will first check in to understand any challenges and work together to adjust responsibilities if needed. ● Differing Work Ethic: We will set clear deadlines and quality expectations early to ensure fairness and accountability. ● Personality Conflicts: We will remain professional and focus on project goals. If needed, we will involve the instructor or TA for guidance.

	Our goal is to resolve issues quickly while maintaining a respectful and productive team environment.
Additional Comments to Instructors:	We are committed to maintaining a collaborative and professional team dynamic throughout this project. Our goal is not only to produce a strong technical deliverable but also to develop effective teamwork, communication, and project management skills. If any concerns arise that we are unable to resolve internally, we will proactively reach out for guidance. We appreciate your support and feedback as we work to uphold high standards for both our design work and our team collaboration.

Preliminary Sketches

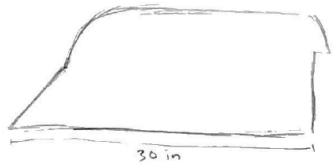
Austin Song



Adarsh Narayanan

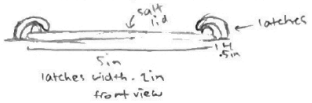
Team Project - Individual Part Sketches

④ Central body of the robot



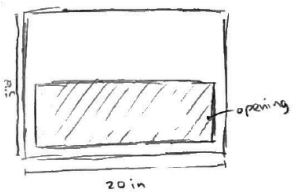
right view width: 20 in

⑪ Latches to keep the lid shut



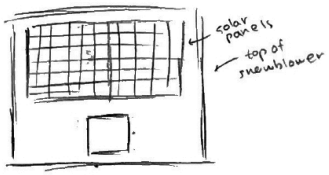
latches width - 2 in
front view

② Front curved face

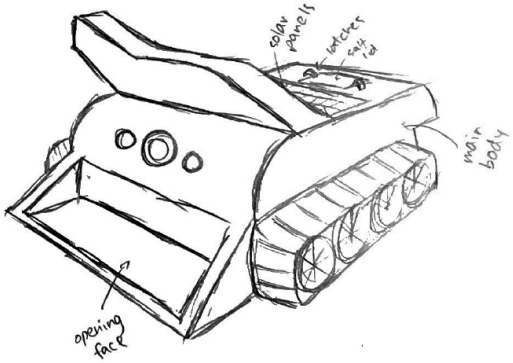


front view

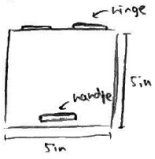
⑤ Solar panels



top view

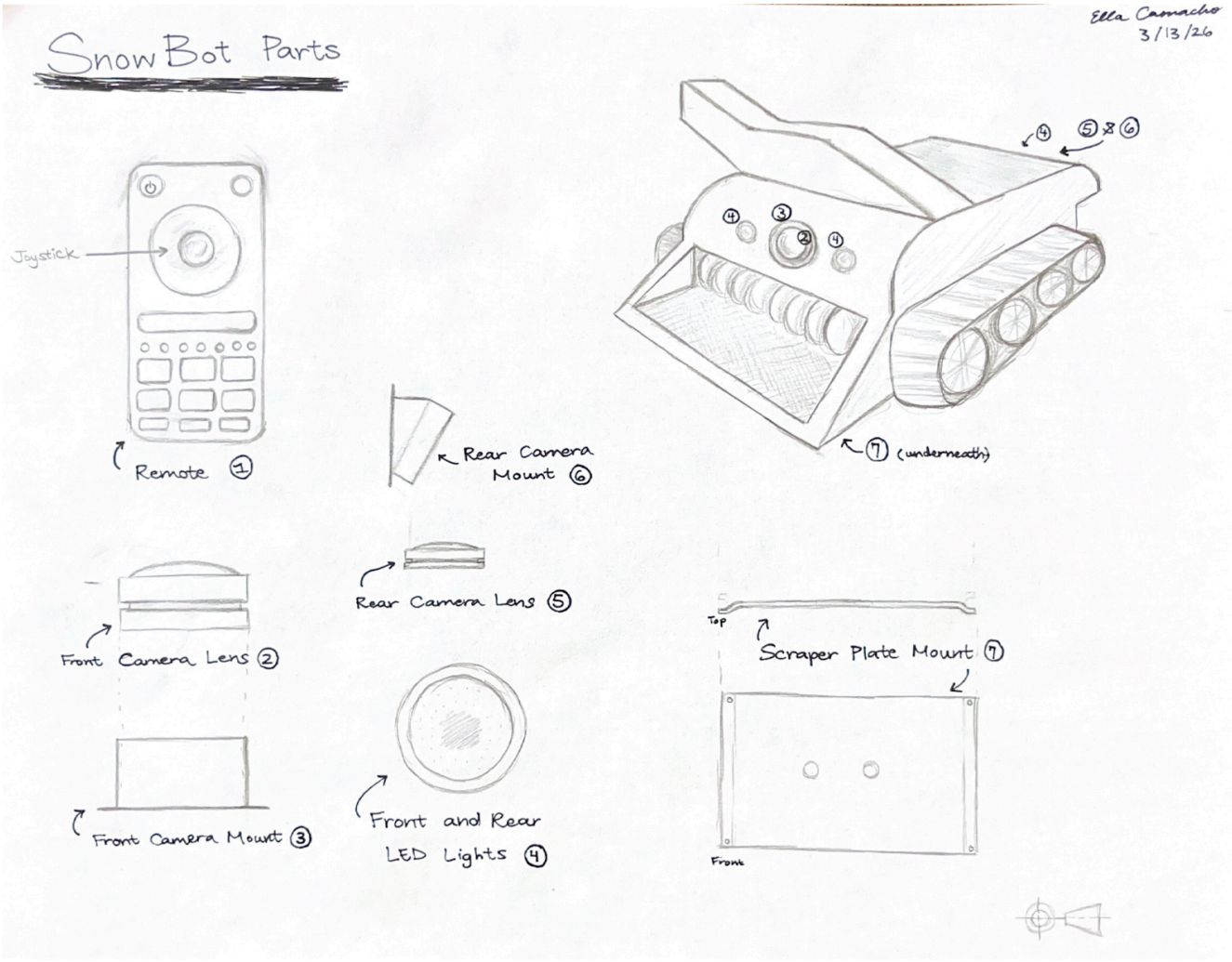


③ Openable lid to refill salt



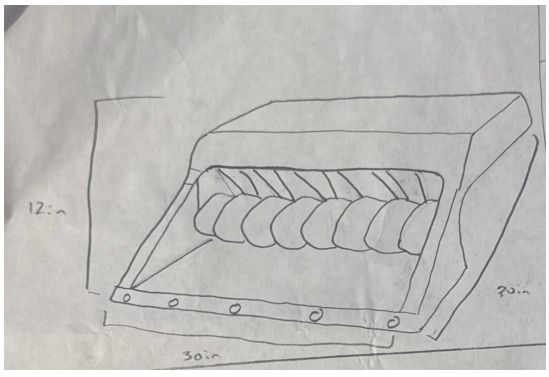
top view

Ella Camacho - (Remote was omitted from final product)

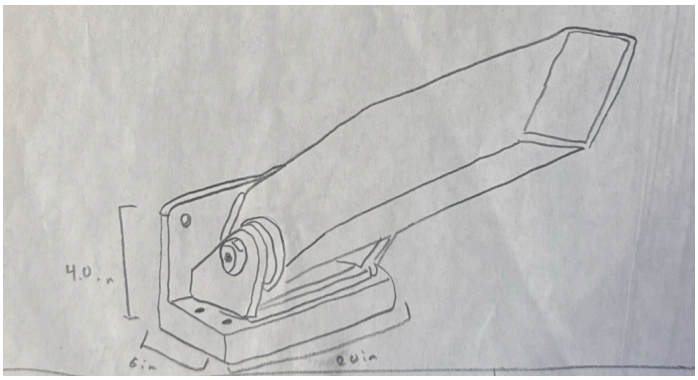


Harsith Rajesh

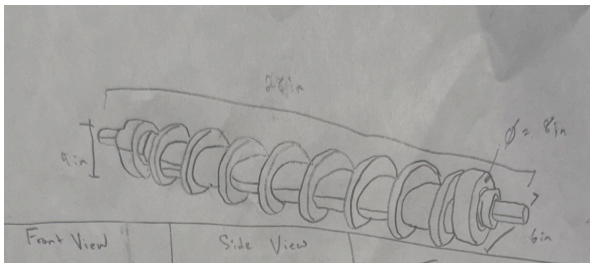
Snow Intake Opening:



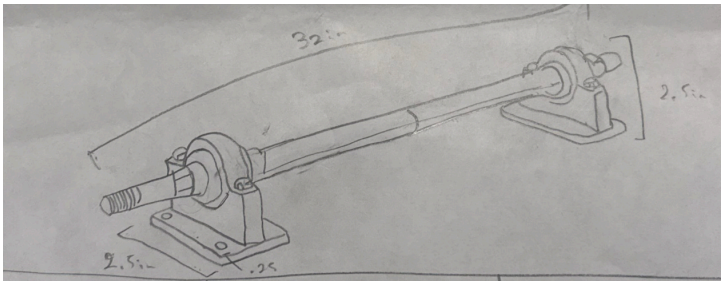
Snow Ejection Chute:



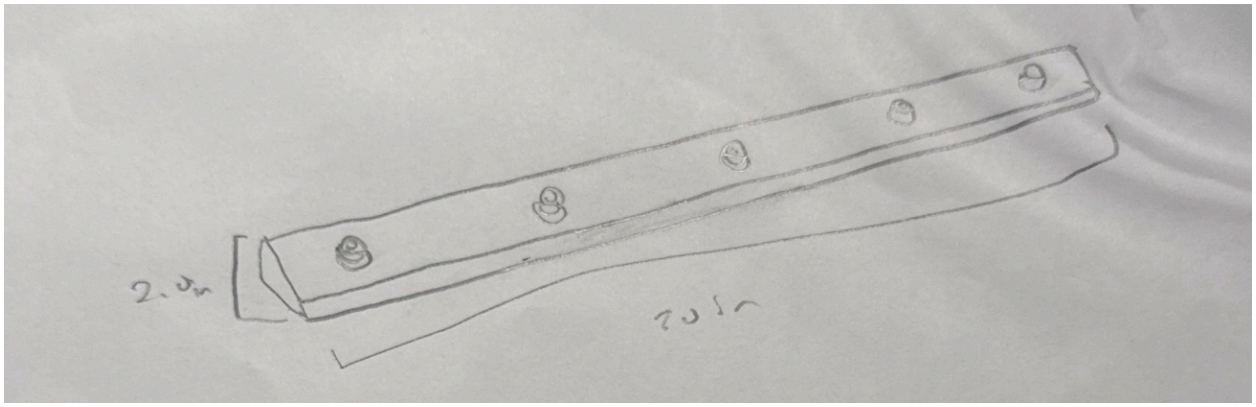
Auger:



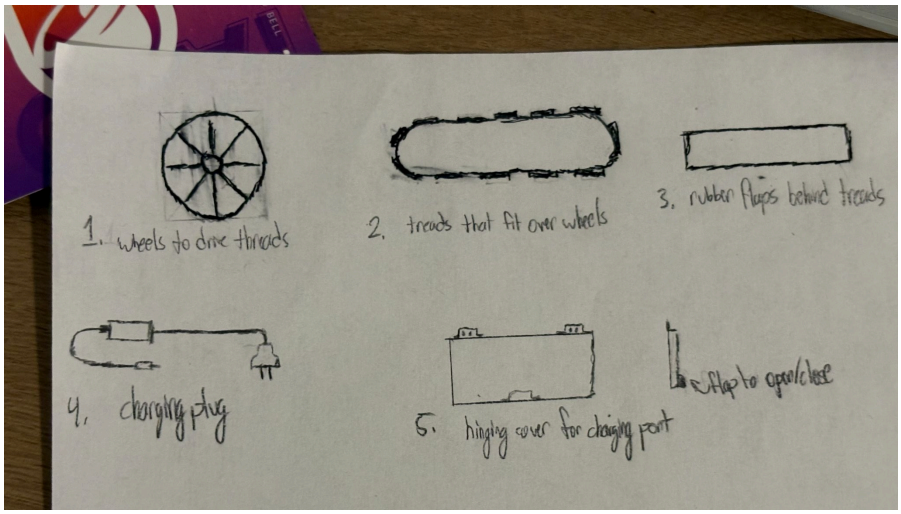
Auger Mount:



Metal Scraper Plate:

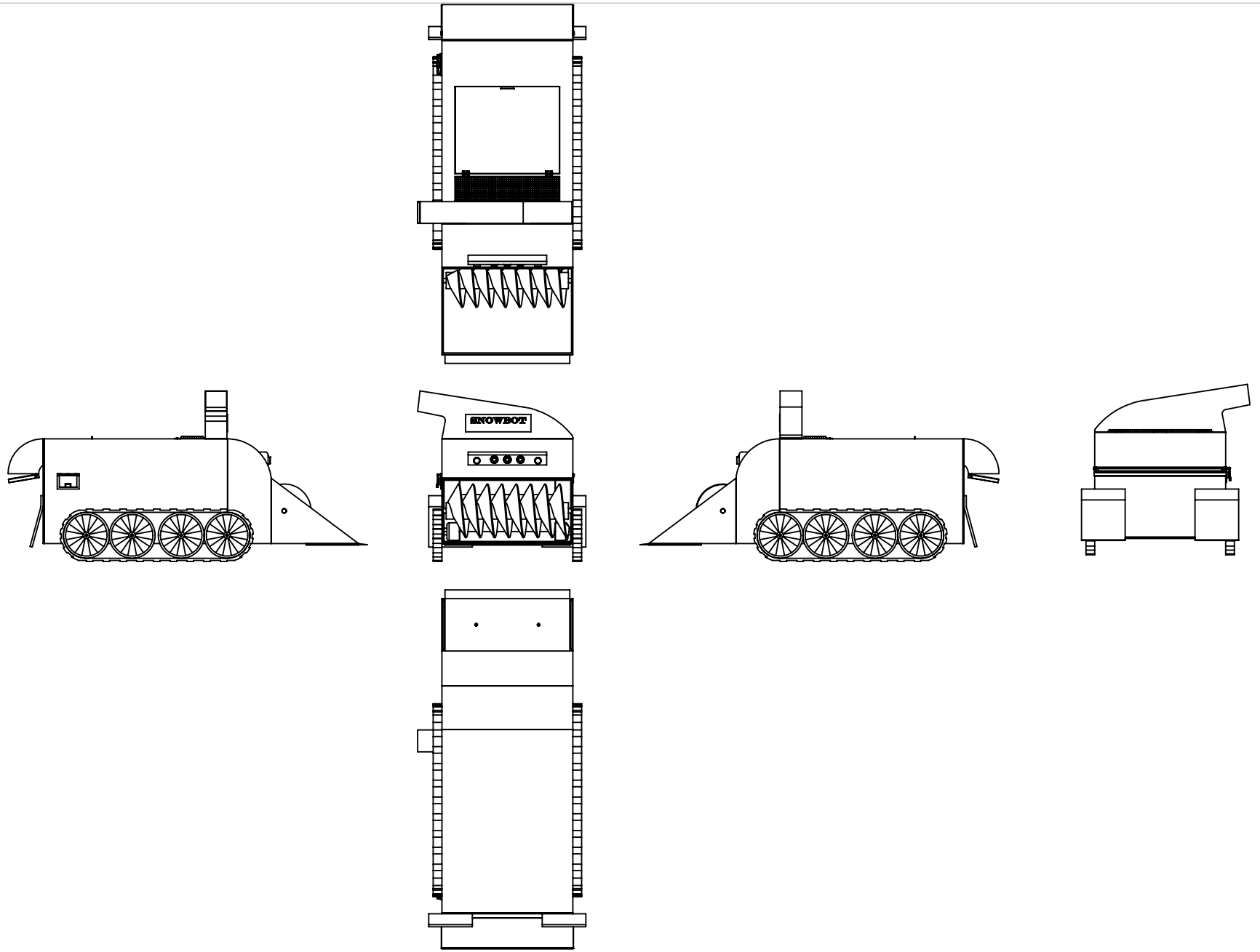


Shyam Sivan



Charging Plug omitted, hinge added instead

Engineering Drawings



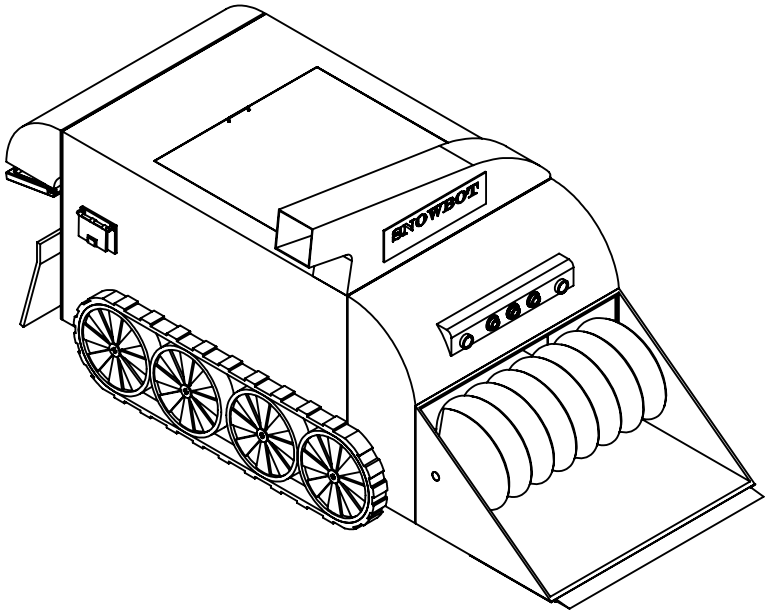
Georgia Institute of Technology

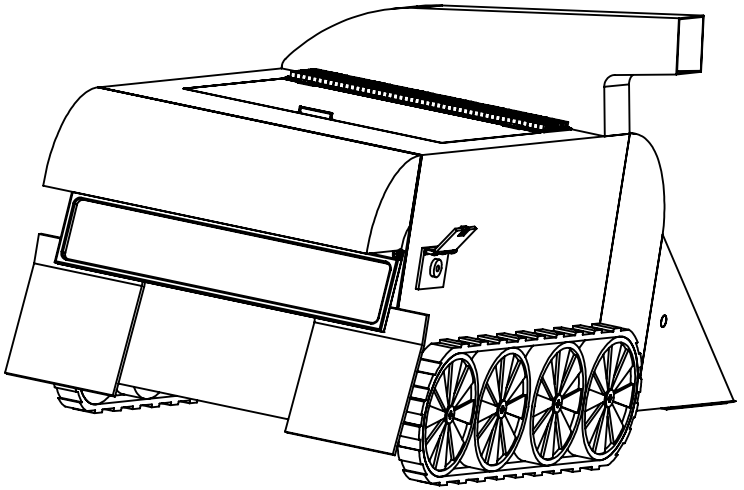
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Final Assembly Multiviews	**5/5/2026**	**Team 5**

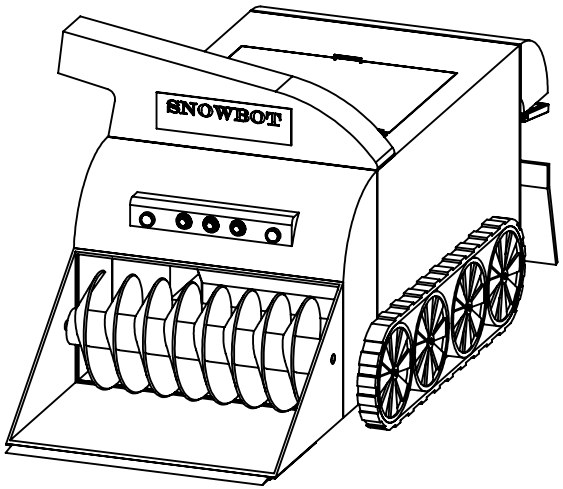
COURSE	SEMESTER	SECTION	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	**SPRING 2026**	**I**			SCALE 1:32 SHEET 1 OF 3	**A**

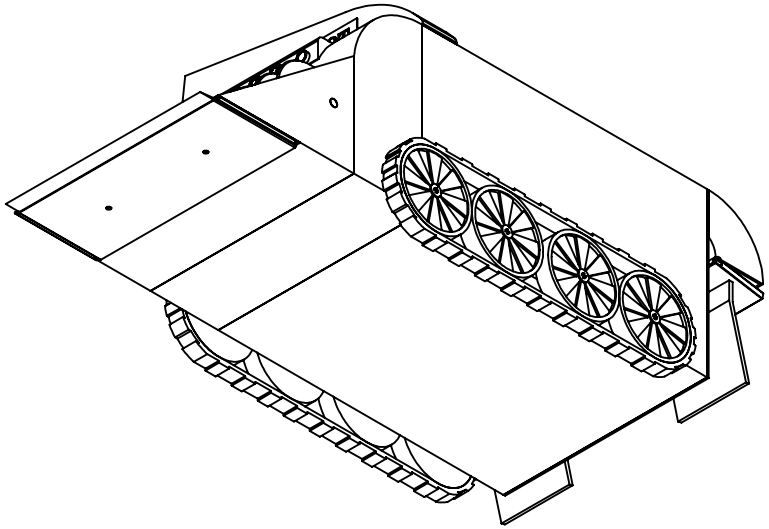
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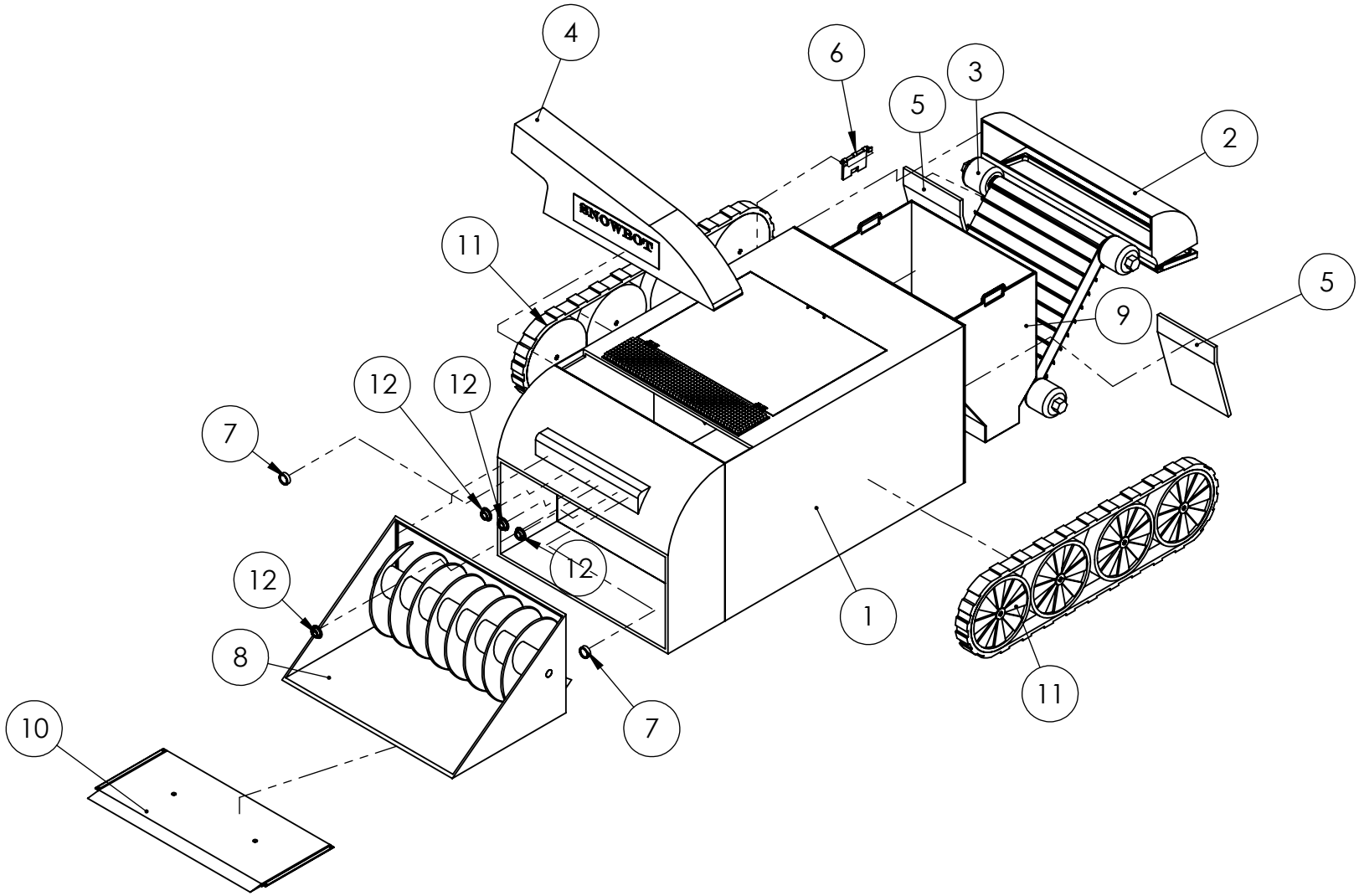




Georgia Institute of Technology	TITLE: **Final Assembly Pictoral**		DATE: **5/5/2026**	NAME: **Team 5**			
	COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:32 SHEET 1 OF 3	SIZE: **A**

5 4 3 2 1

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Georgia Institute of Technology	TITLE: **Final Assembly Exploded**		DATE: **5/5/2026**	NAME: **Team 5**			
	COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: **A**
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5 4 3 2 1

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ITEM NO.	PART NUMBER	MATERIALS	QTY.
1	SubAsssembly	201 Annealed Stainless Steel, Acrylic (medium-high impact)	1
2	ChuteAssm	201 Annealed Stainless Steel	1
3	ConveyorAssm	6061 Alloy, Rubber	1
4	ExhaustTitleCard_HarsithRajesh	201 Annealed Stainless Steel	1
5	Flap	Rubber	2
6	Hinge-Cover System	201 Annealed Stainless Steel	1
7	Light	Glass	2
8	OpeningAugerComb_HarsithRajesh	201 Annealed Stainless Steel	1
9	SaltBox	ABS	1
10	ScraperSubassembly	201 Annealed Stainless Steel	1
11	Tread-Wheel System	201 Annealed Stainless Steel, Rubber	2
12	CameraSubassembly	ABS PC, 1060 Alloy	4

Georgia Institute of Technology

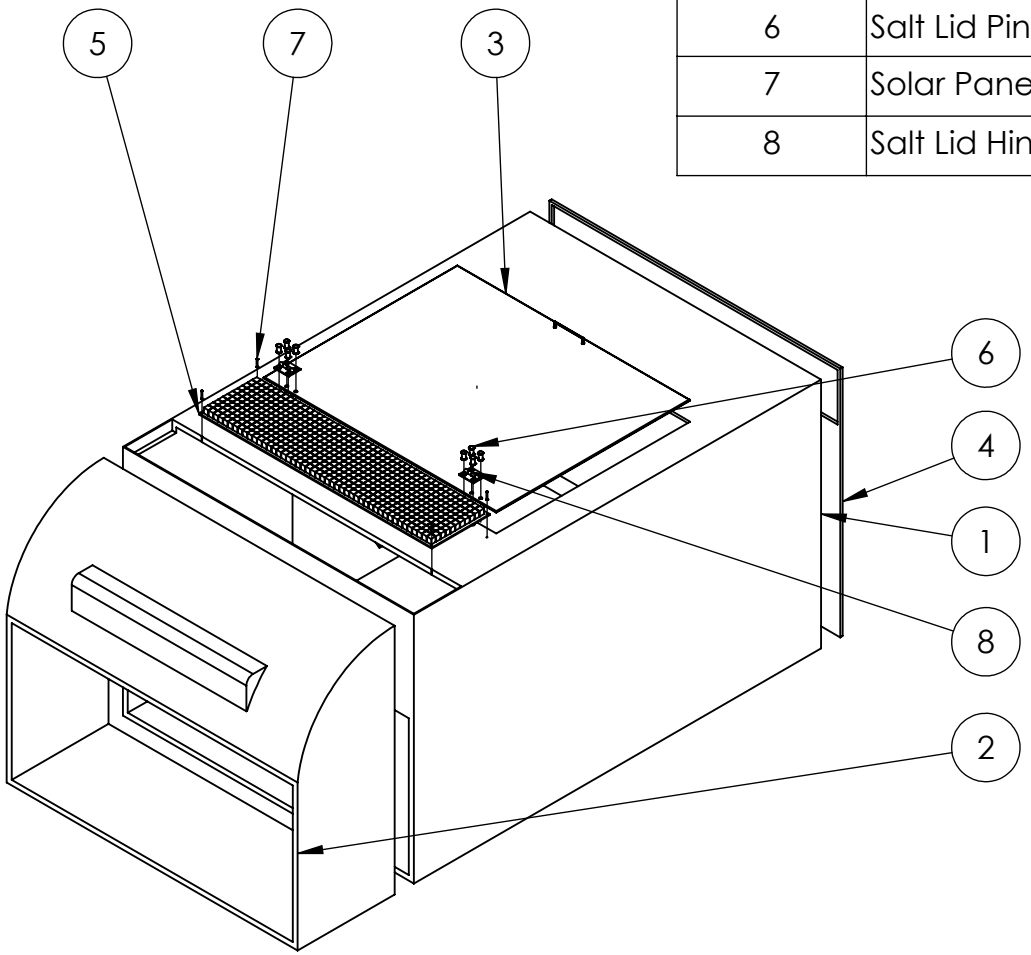
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Final Assembly Bill of Materials	**5/5/2026**	**Team 5**

COURSE	SEMESTER	SECTION	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	**SPRING 2026**	**I**			SCALE 1:1 SHEET 2 OF 3	**A**

5 4 3 2 1

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ITEM NO.	PART NUMBER	Material	QTY.
1	Central Body	201 Annealed Stainless Steel	1
2	Rounded Front Face	201 Annealed Stainless Steel	1
3	Salt Lid	201 Annealed Stainless Steel	1
4	Back Plate	201 Annealed Stainless Steel	1
5	Solar Panel	Crystalline Silicon	1
6	Salt Lid Pin	201 Annealed Stainless Steel	8
7	Solar Panel Hinge Pin	201 Annealed Stainless Steel	4
8	Salt Lid Hinge	201 Annealed Stainless Steel	2



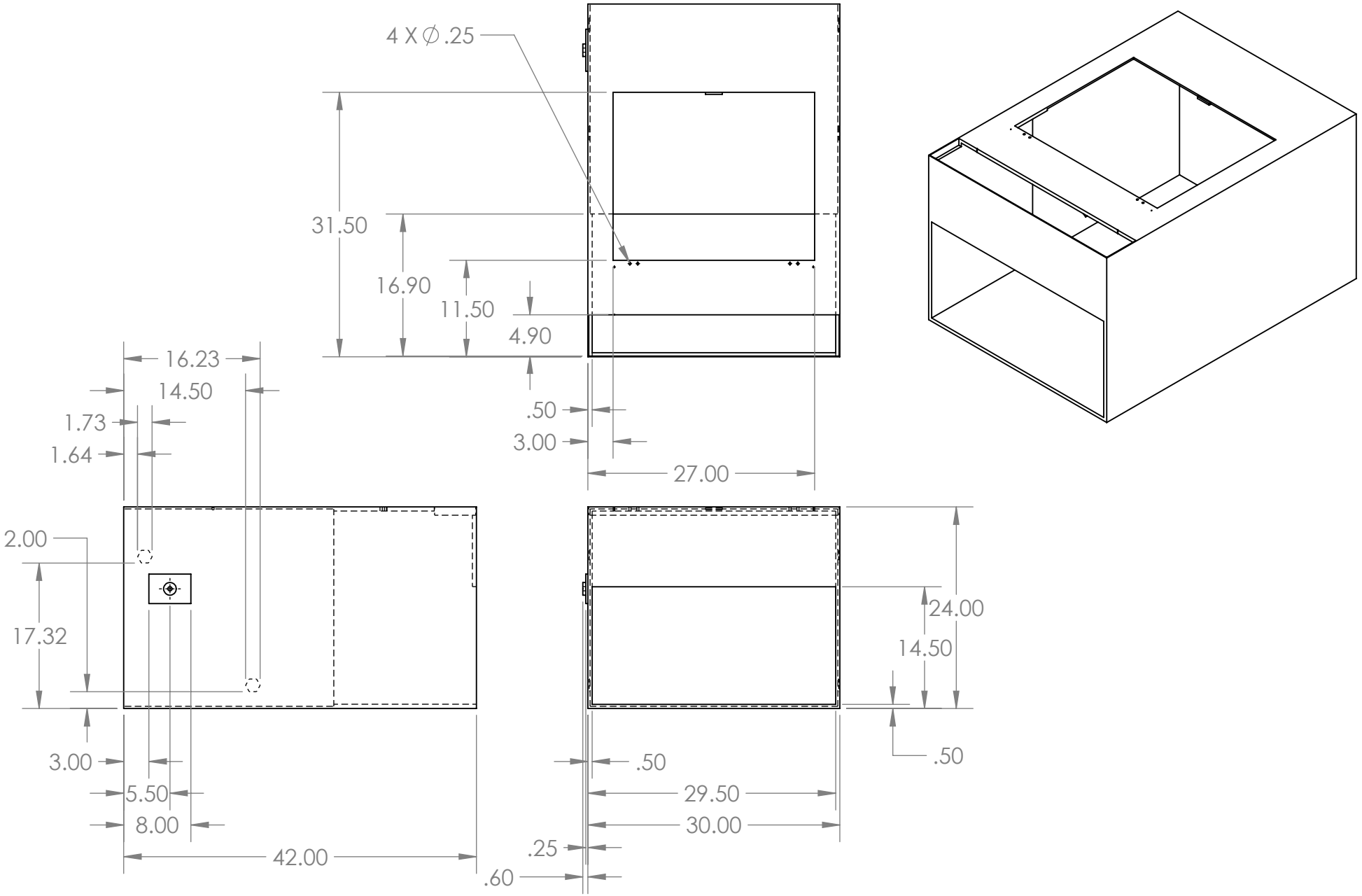
Georgia Tech College of Engineering

TITLE	DATE	NAME
BODY SUBASSEMBLY	5/3/2026	Adarsh Narayanan

COURSE	SEMESTER	SECTION	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	SPRING 2026	I		SCALE 1:14 SHEET 1 OF 1	A

5 4 3 2 1

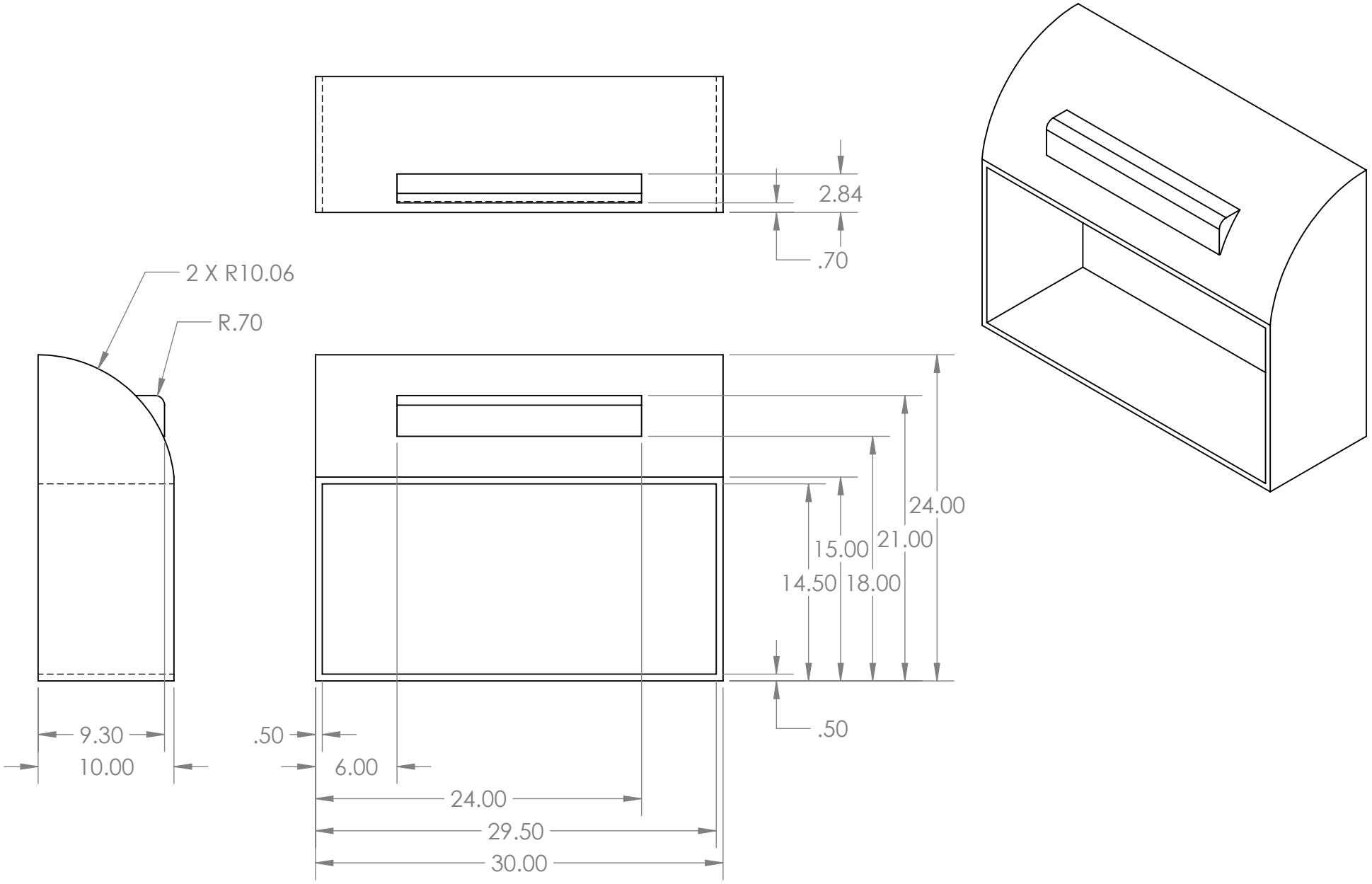
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Georgia Tech College of Engineering	TITLE: CENTRAL BODY		DATE: 5/3/2026	NAME: Adarsh Narayanan		
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:16 SHEET 1 OF 1	SIZE: A

5 4 3 2 1

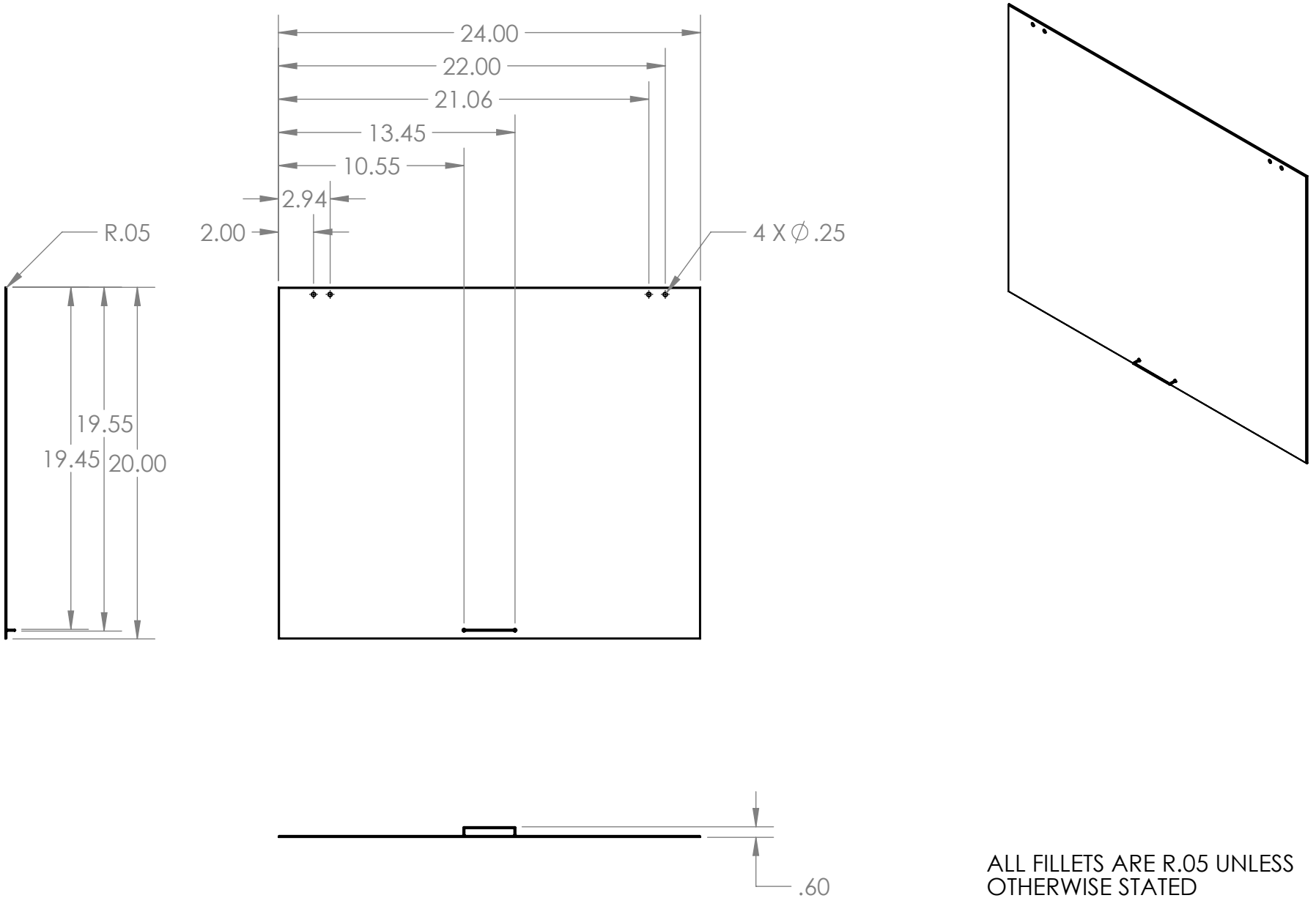
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	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
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5 4 3 2 1

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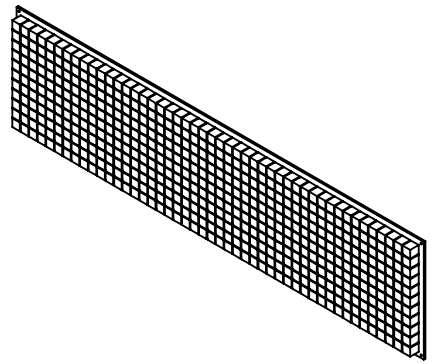


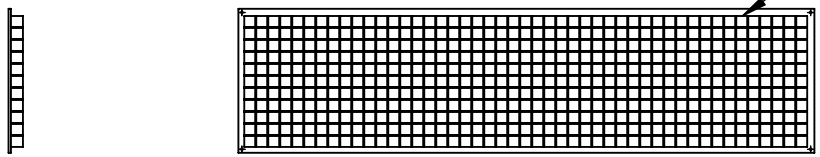
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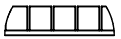
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	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
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5 4 3 2 1

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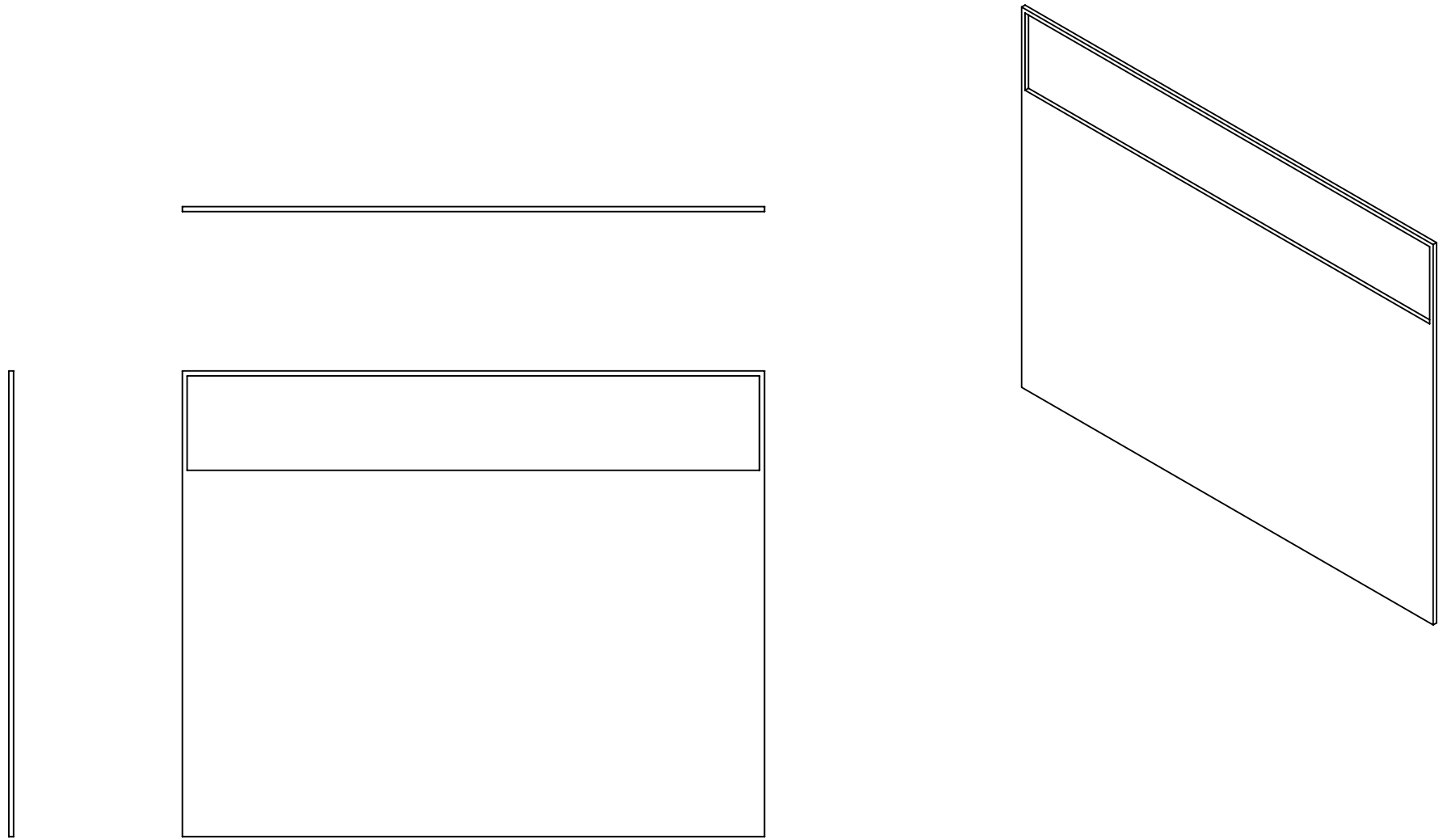
DETAIL A
SCALE 1 : 4



Georgia Tech College of Engineering	TITLE: SOLAR PANEL		DATE: 5/3/2026	NAME: Adarsh Narayanan		
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:8 SHEET 1 OF 1	SIZE: A

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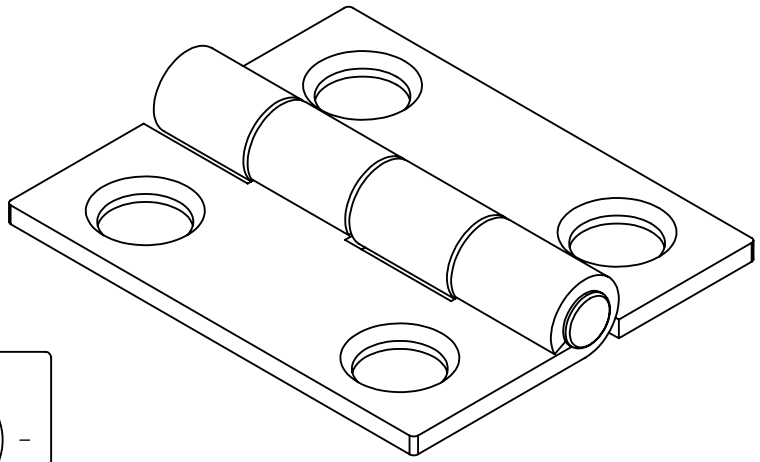
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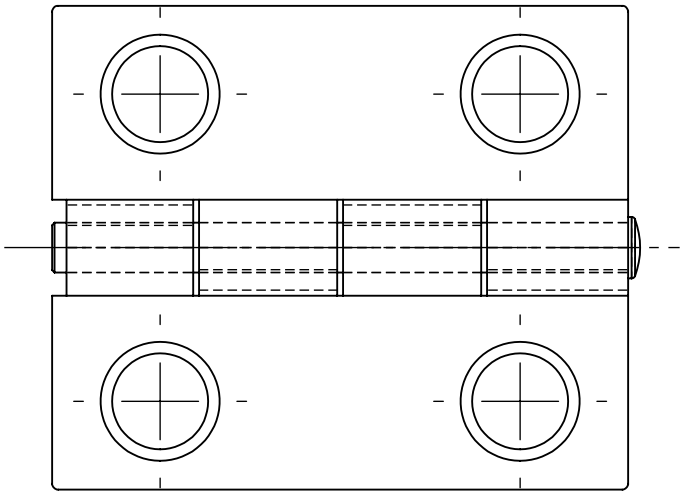


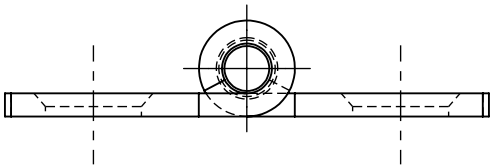
Georgia Tech College of Engineering	TITLE: BACK PLATE		DATE: 5/3/2026	NAME: Adarsh Narayanan		
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
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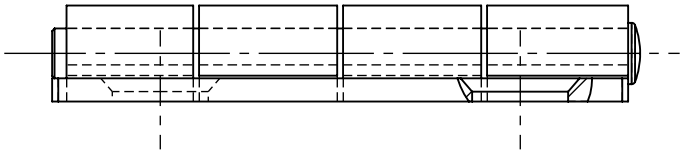
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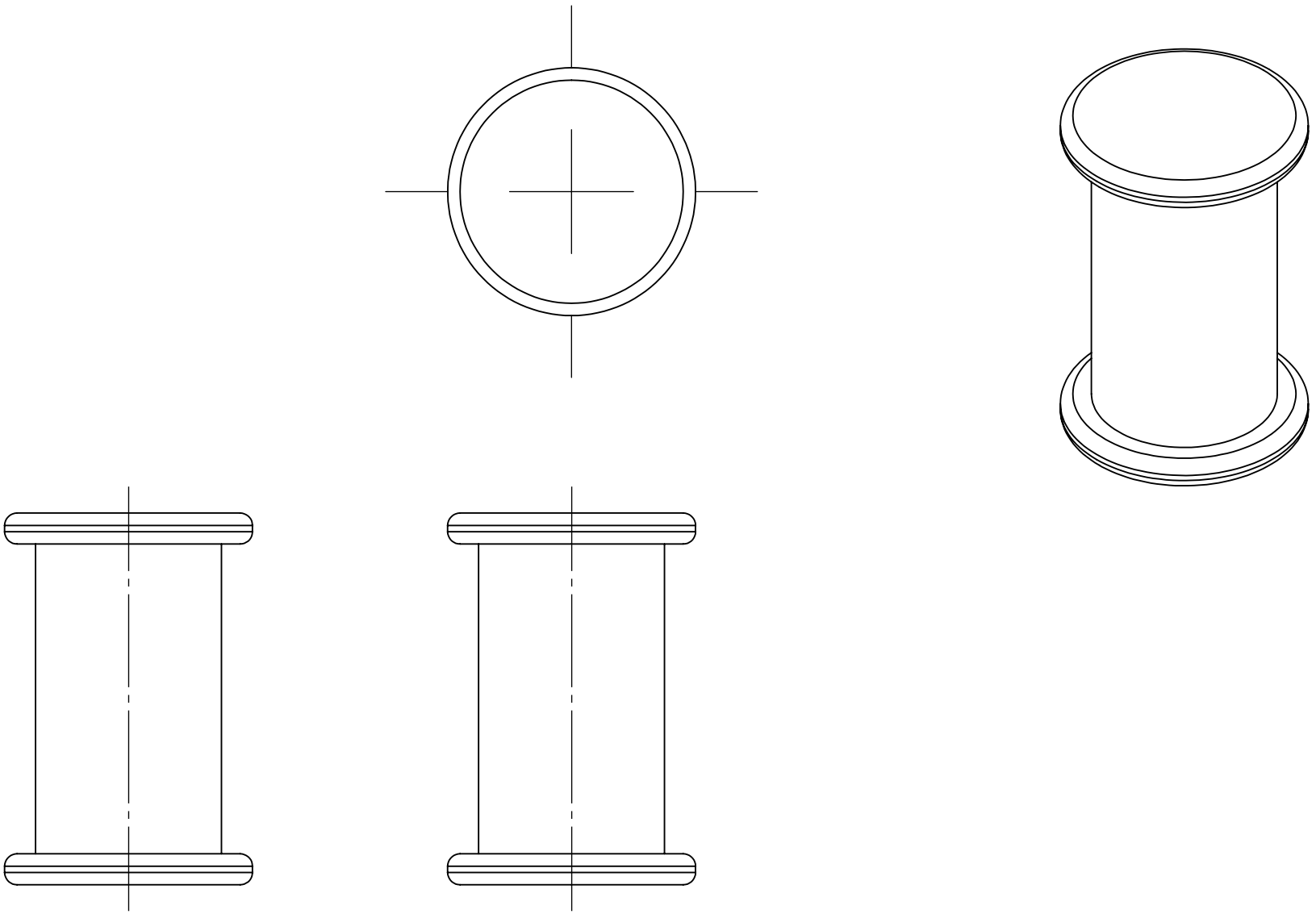


Georgia Tech College of Engineering

TITLE: SALT LID HINGE			DATE: 5/3/2026	NAME: Adarsh Narayanan		
COURSE: ME 1670	SEMESTER: SPRING 2026		SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
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5 4 3 2 1

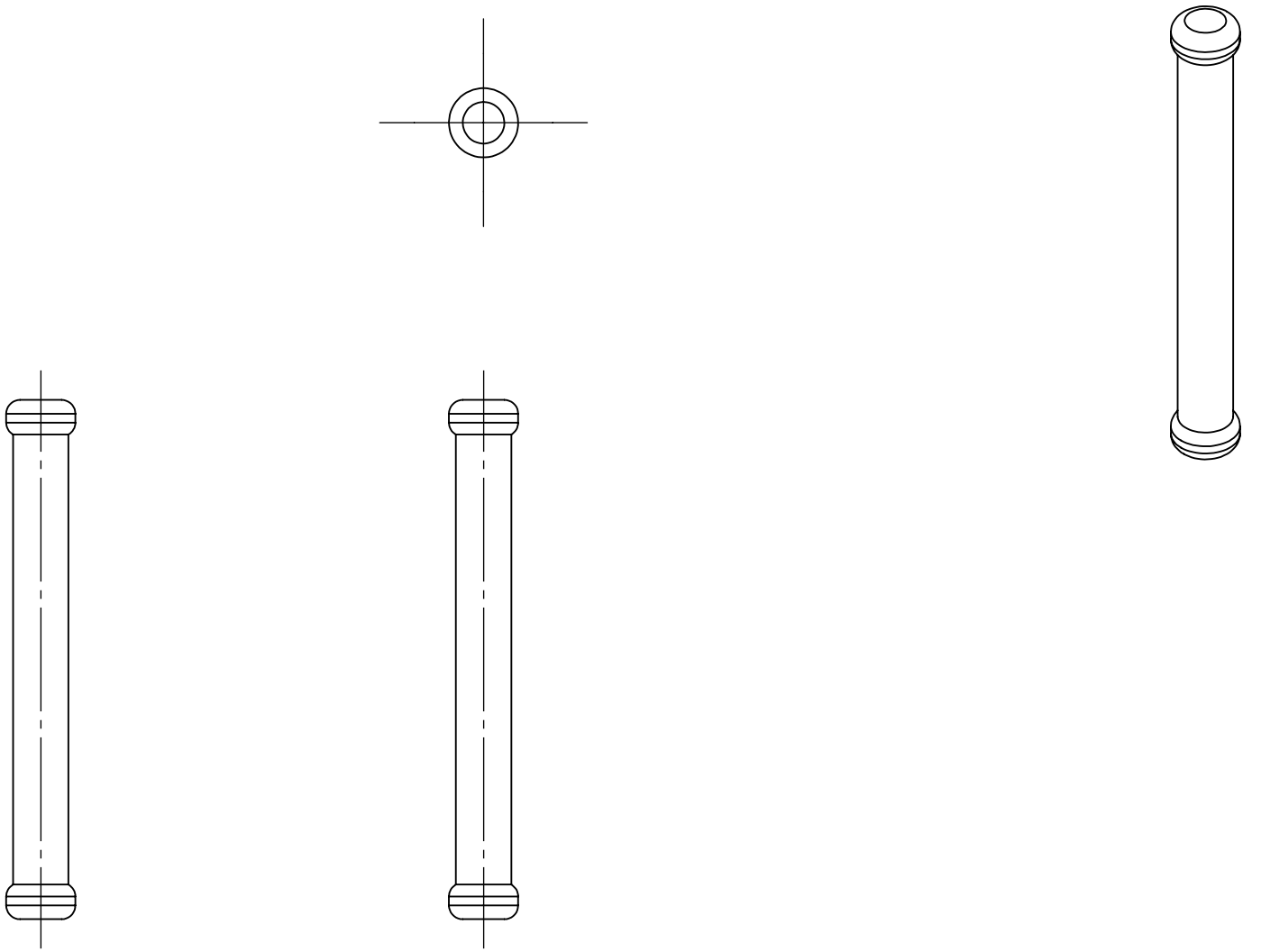
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Georgia Tech College of Engineering	TITLE: SALT LID HINGE PIN		DATE: 5/3/2026	NAME: Adarsh Narayanan		
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
					SCALE 4:1 SHEET 1 OF 1	

5 4 3 2 1

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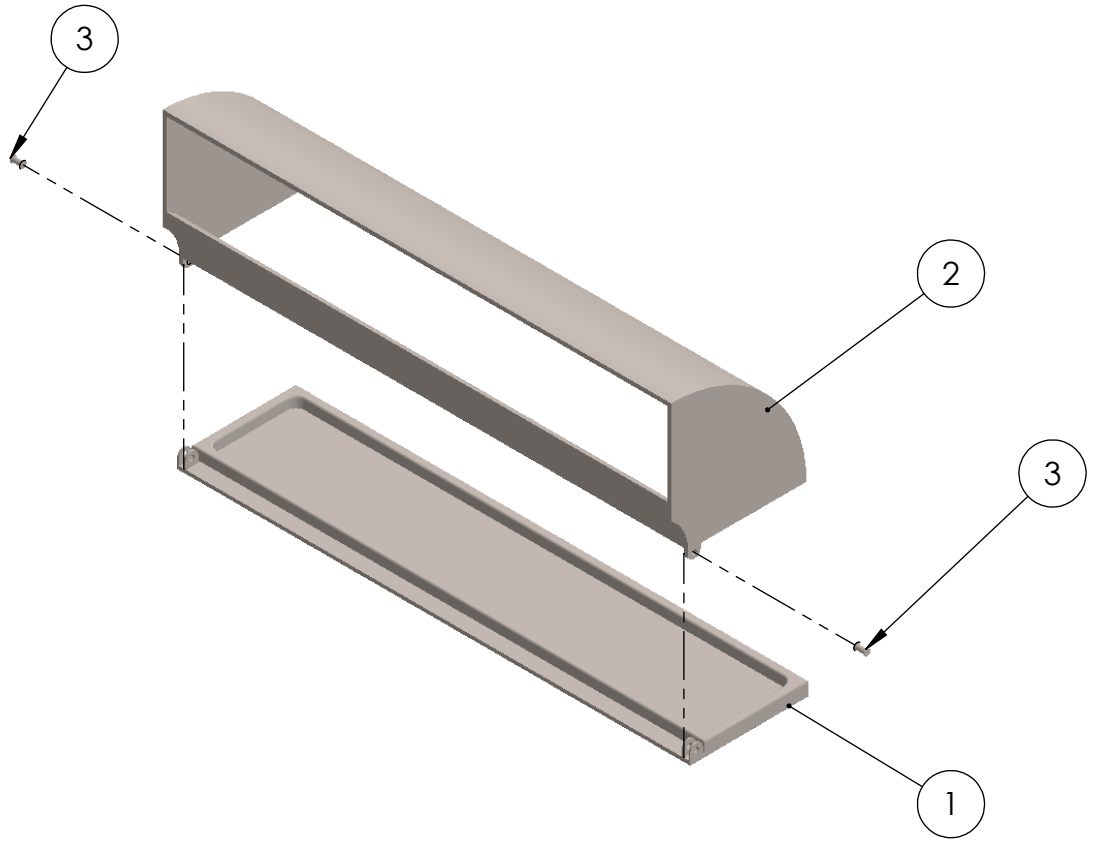


Georgia Tech College of Engineering	TITLE: SOLAR PANEL PIN		DATE: 5/3/2026	NAME: Adarsh Narayanan		
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 4:1 | SHEET 1 OF 1	SIZE: A

5 4 3 2 1

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ITEM NO.	PART NAME	Material	QTY.
1	ChuteFlap	201 Annealed Stainless Steel	1
2	SaltChute	201 Annealed Stainless Steel	1
3	HingePin	201 Annealed Stainless Steel	2



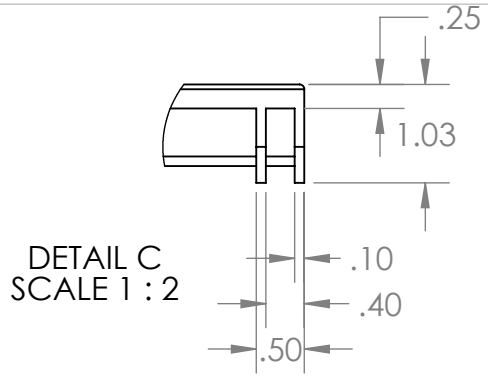
Georgia Institute of Technology

TITLE	DATE	NAME
Chute Assembly-Exploded	5/5/2026	Austin Song

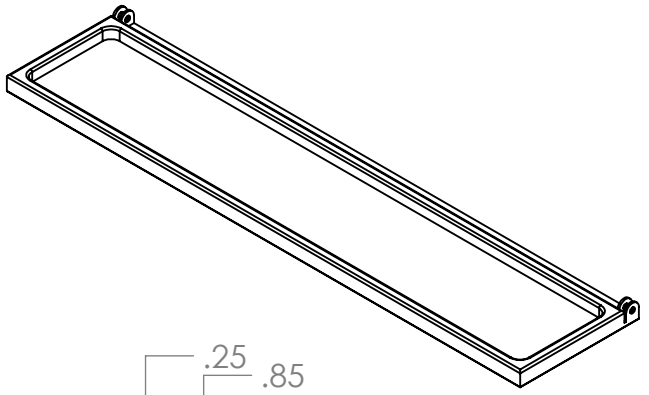
COURSE	SEMESTER	SECTION	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	SPRING 2026	I			SCALE 1:8 SHEET 1 OF 9	A

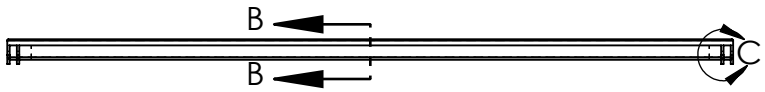
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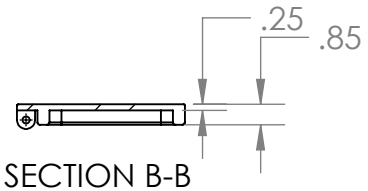
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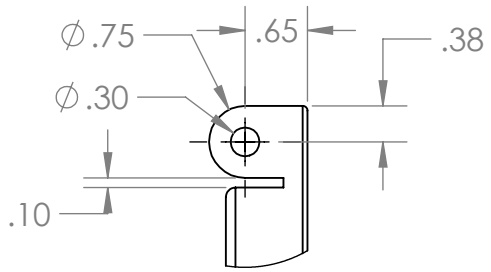
DETAIL C
SCALE 1 : 2

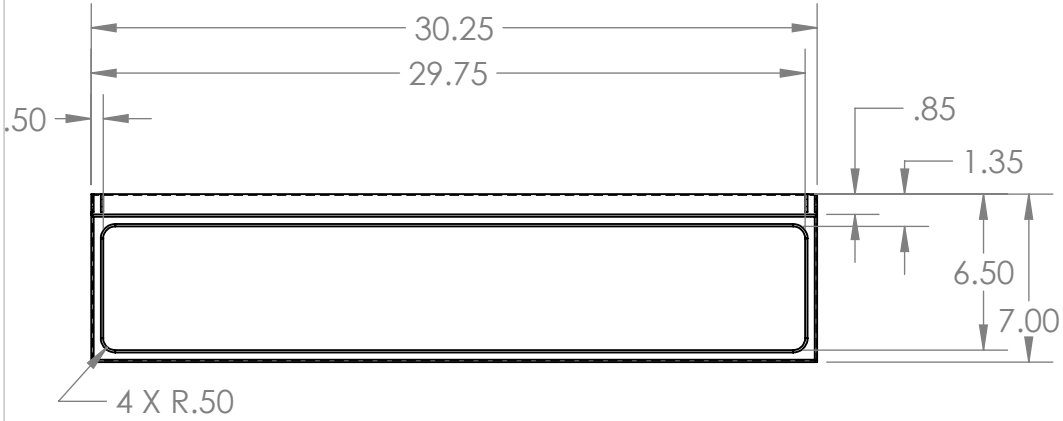


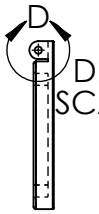




SECTION B-B







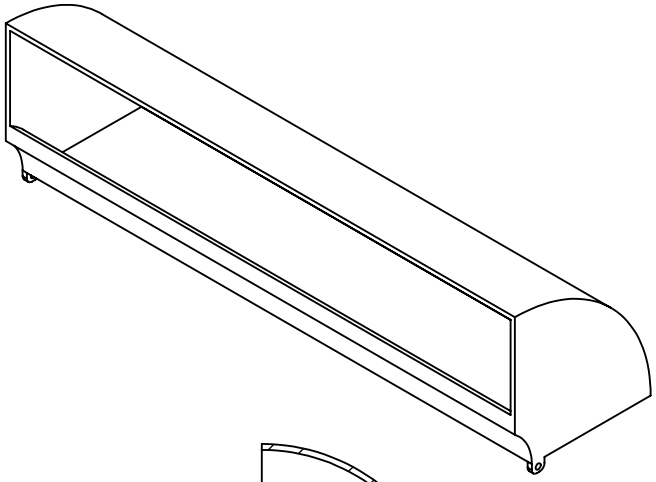
DETAIL D
SCALE 1 : 2

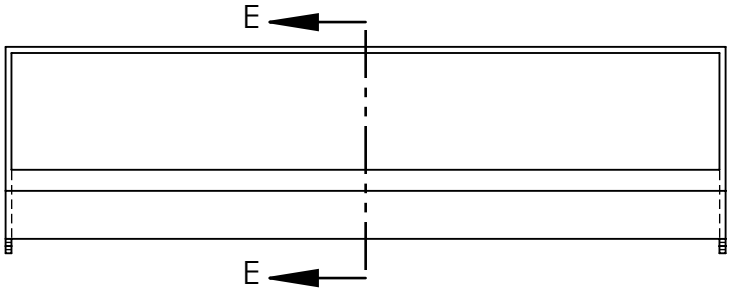
ALL FILLETS HAVE R 0.1 in UNLESS OTHERWISE SPECIFIED

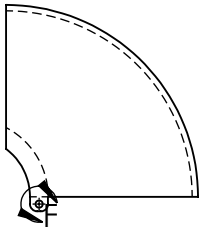
Georgia Institute of Technology	TITLE: Chute Flap		DATE: 5/5/2026	NAME: Austin Song			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
						SCALE 1:8 | SHEET 2 OF 9	

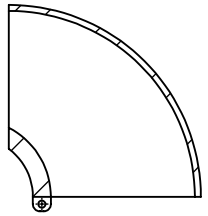
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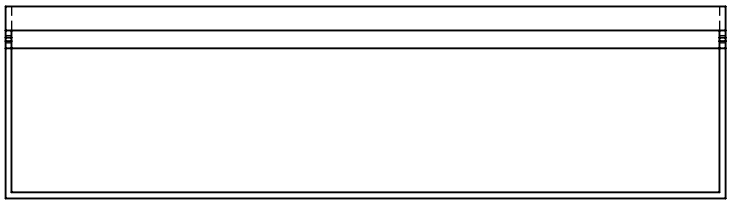


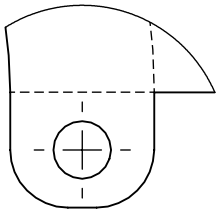






SECTION E-E



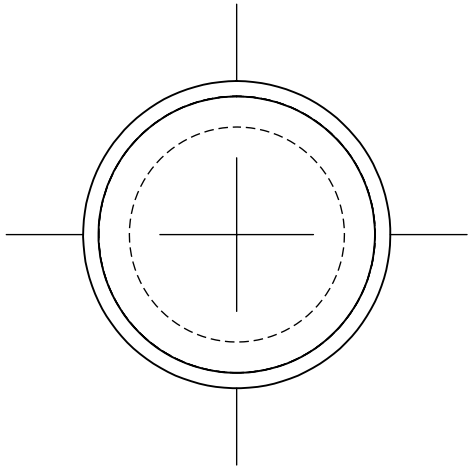


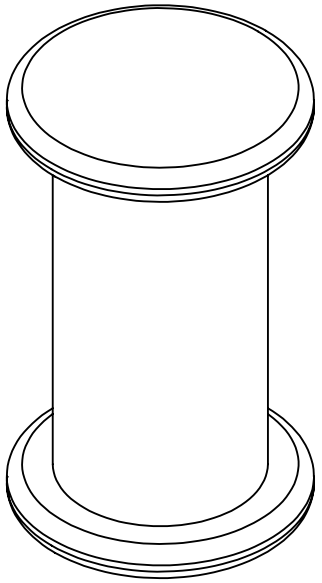
DETAIL F
SCALE 1 : 1

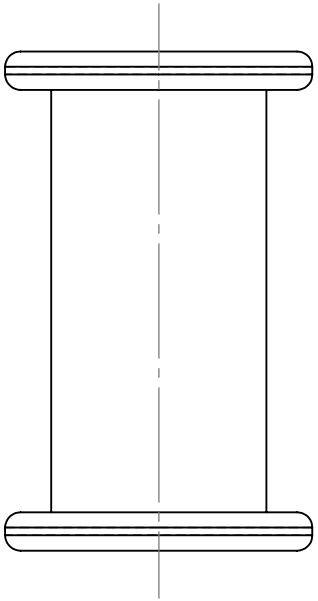
Georgia Institute of Technology	TITLE: **Salt Chute**		DATE: **5/5/2026**	NAME: Austin Song			
	COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:8 | SHEET 3 OF 9	SIZE: **A**

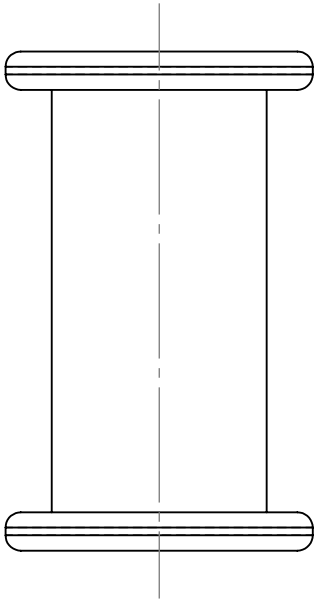
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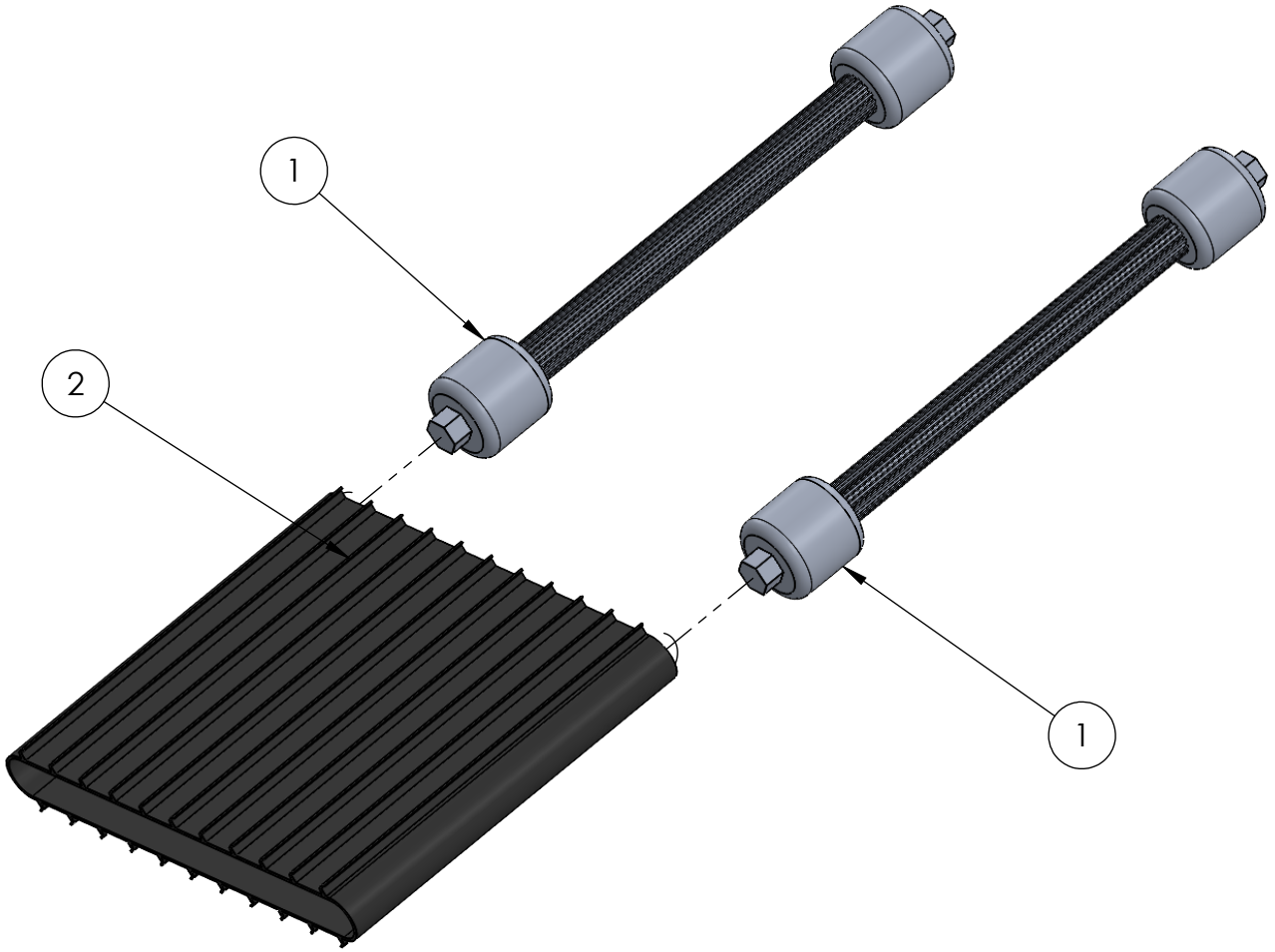


Georgia Institute of Technology	TITLE **Hinge Pin**		DATE **5/5/2026**	NAME Austin Song			
	COURSE **ME 1670**	SEMESTER **SPRING 2026**	SECTION **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 4:1 SHEET 4 OF 9	SIZE **A**

5 4 3 2 1

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ITEM NO.	PART NAME	Material	QTY.
1	ConveyorRod	Aluminum 6061	2
2	Belt	Rubber	1



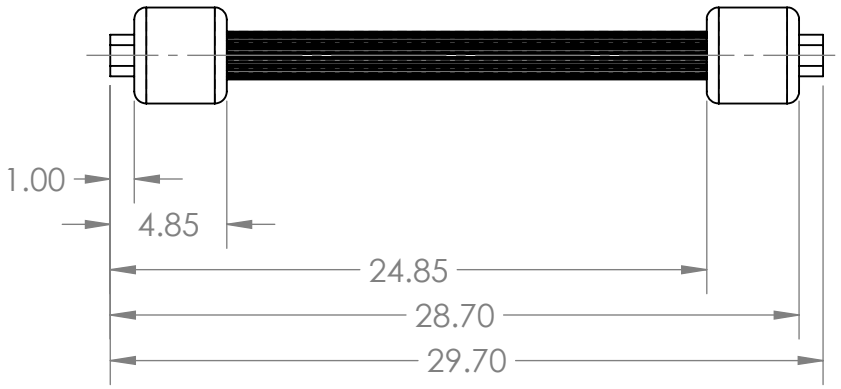
Georgia Institute of Technology

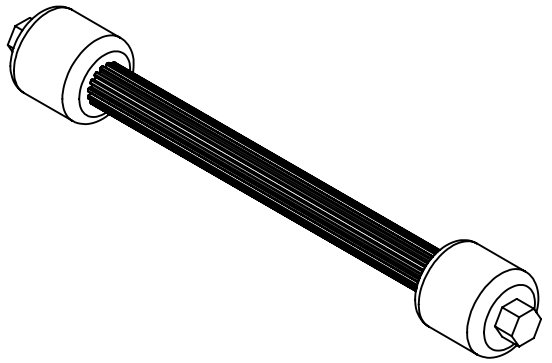
TITLE	DATE	NAME
Conveyor Assembly-Exploded	5/5/2026	Austin Song

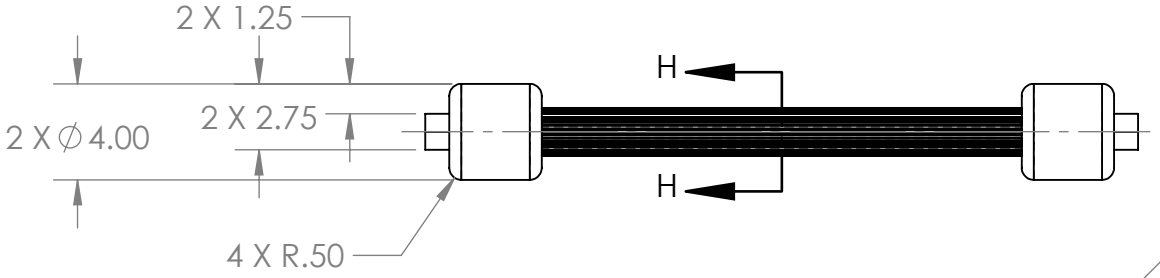
COURSE	SEMESTER	SECTION	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	SPRING 2026	I			SCALE 1:8 SHEET 5 OF 9	A

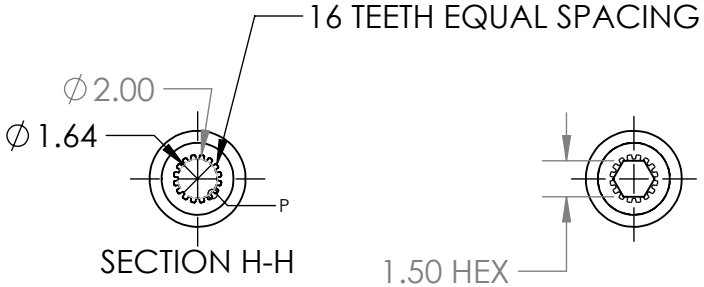
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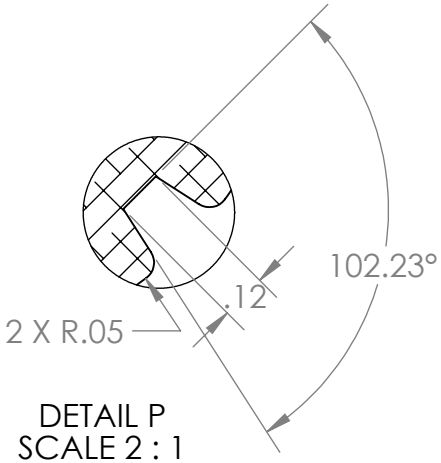
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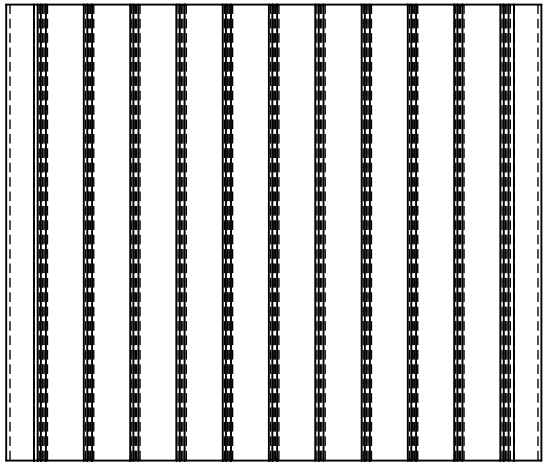


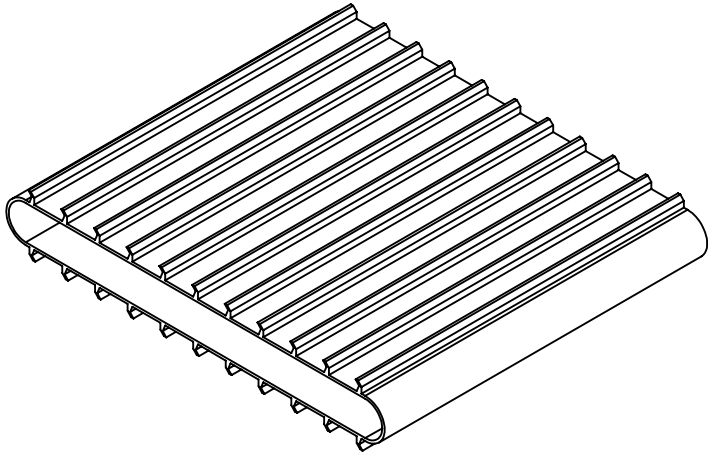
DETAIL P
SCALE 2 : 1

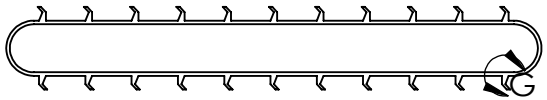
Georgia Institute of Technology	TITLE: **Conveyor Rod**		DATE: **5/5/2026**	NAME: Austin Song		
COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: **A**
					SCALE 1:8 / SHEET 6 OF 9	

5 4 3 2 1

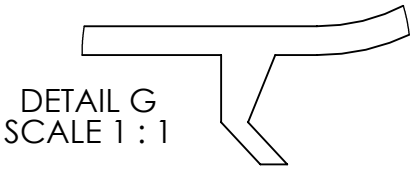
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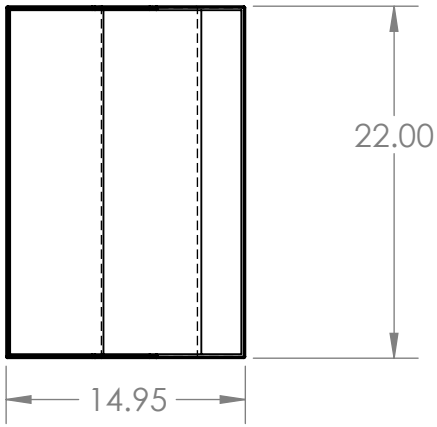


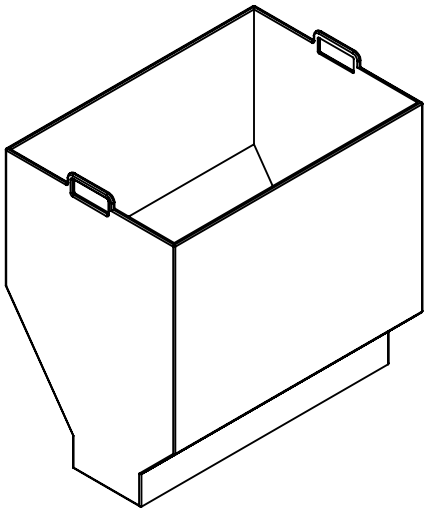
DETAIL G
SCALE 1 : 1

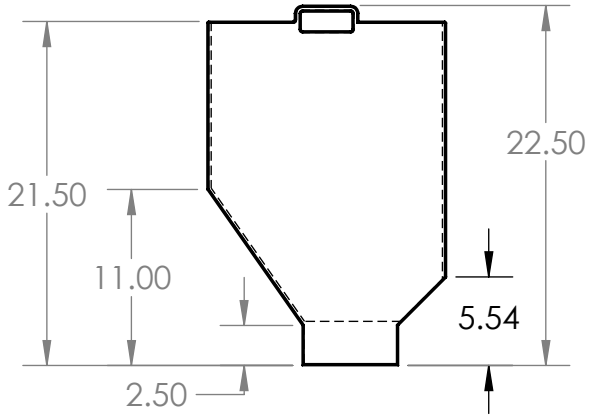
Georgia Institute of Technology	TITLE **Belt**		DATE **5/5/2026**	NAME Austin Song			
	COURSE **ME 1670**	SEMESTER **SPRING 2026**	SECTION **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:8 SHEET 7 OF 9	SIZE **A**

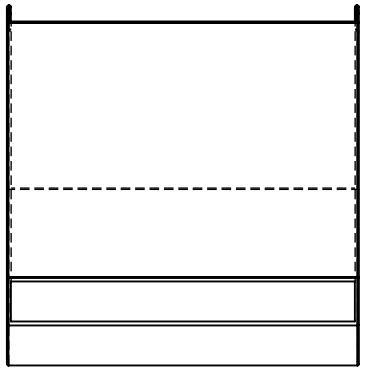
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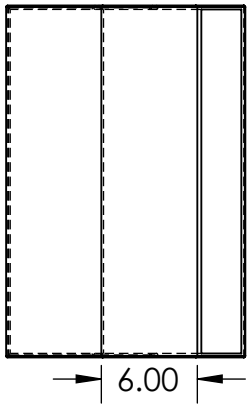
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ALL FILLETS HAVE R 0.1 in UNLESS OTHERWISE SPECIFIED

UNIFORM WALL THICKNESS .25 in UNLESS OTHERWISE SPECIFIED

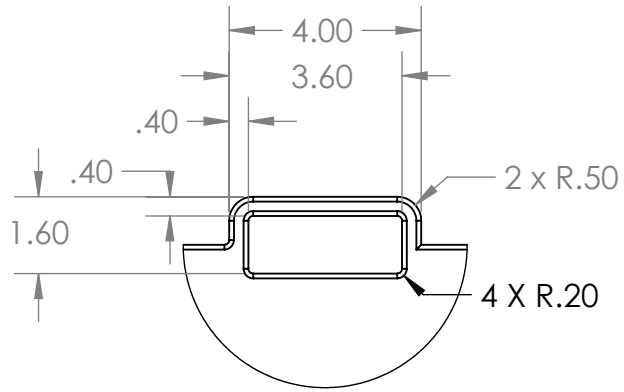
Georgia Institute of Technology	TITLE: Salt Box		DATE: **5/5/2026**	NAME: Austin Song			
	COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:12 SHEET 8 OF 9	SIZE: **A**

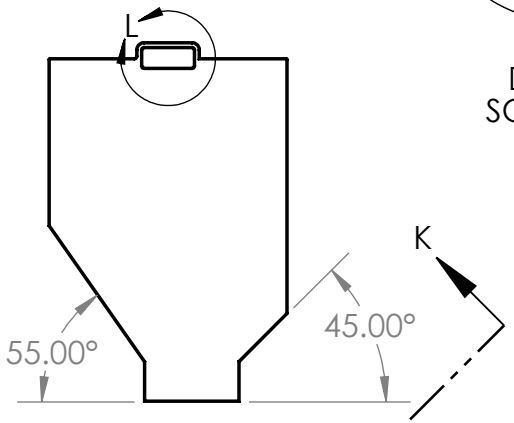
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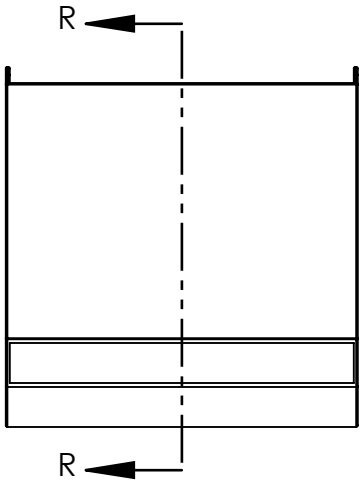
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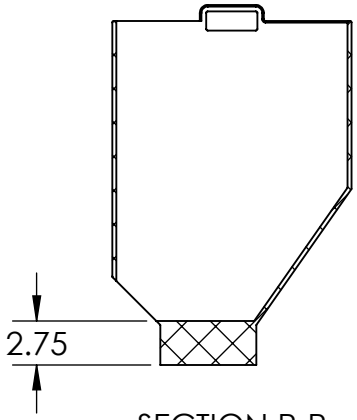
UNIFORM WALL THICKNESS .25 in UNLESS OTHERWISE SPECIFIED



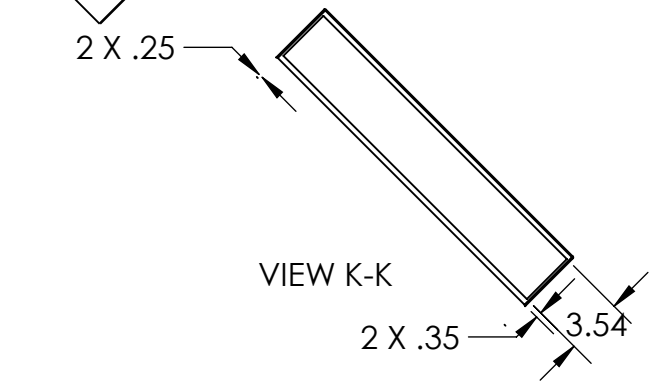


DETAIL L
SCALE 1 : 4





SECTION R-R

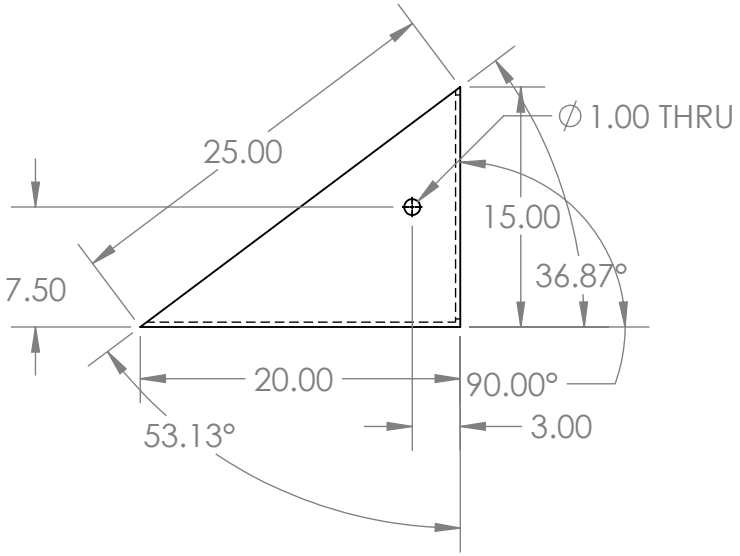


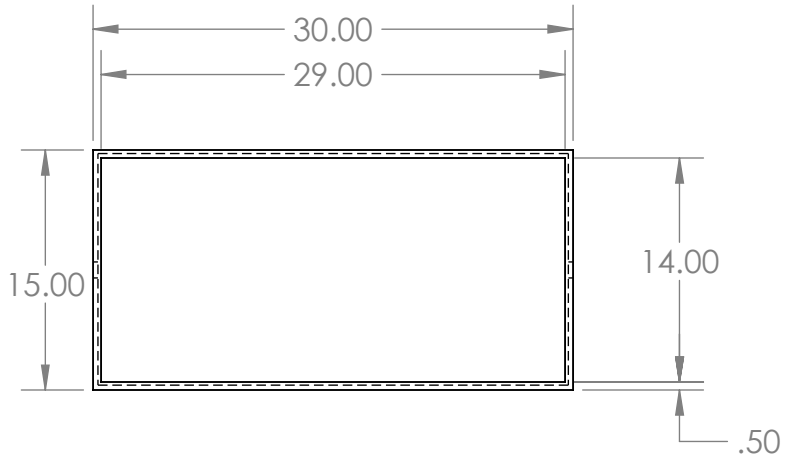
VIEW K-K

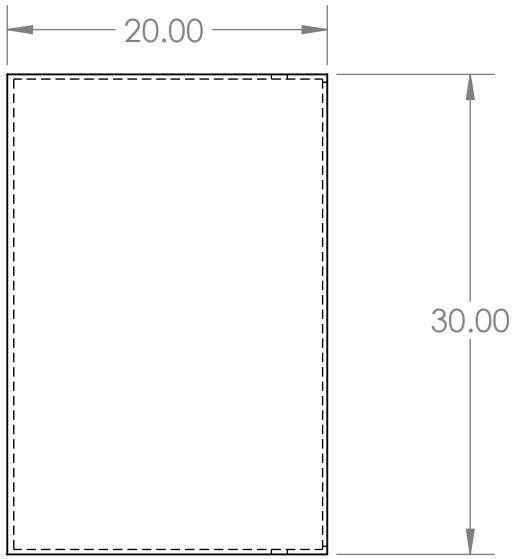
Georgia Institute of Technology	TITLE: Salt Box Cont.		DATE: 5/5/2026	NAME: Austin Song		
COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
					SCALE 1:12 SHEET 9 OF 9	

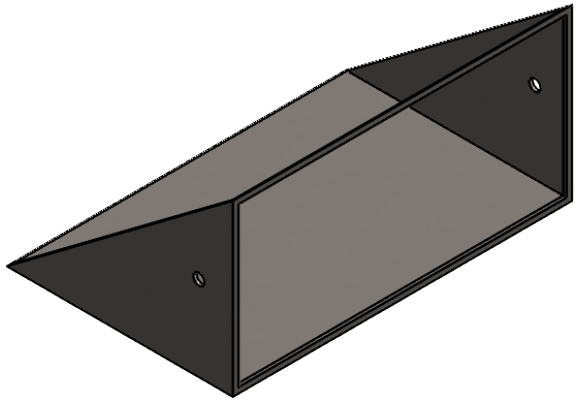
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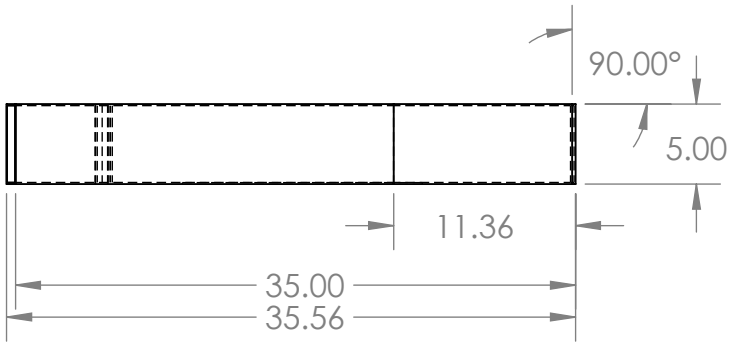


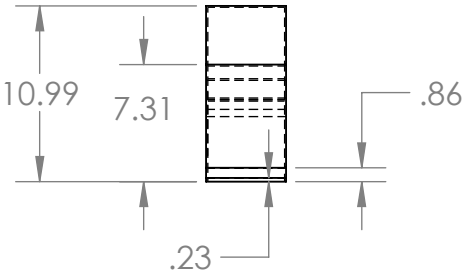


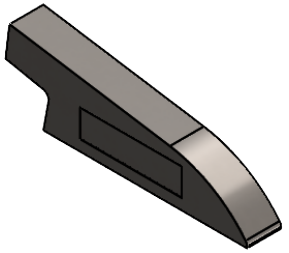
Georgia Tech College of Engineering	TITLE: **Snow Intake Opening**		DATE: **5/3/2026**	NAME: **Harsith Rajesh**			
	COURSE: **ME 1670**	SEMESTER: **Spring 2026**	SECTION: **I**	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES		SIZE: **A**
					SCALE 1:12	SHEET 1 OF 1	

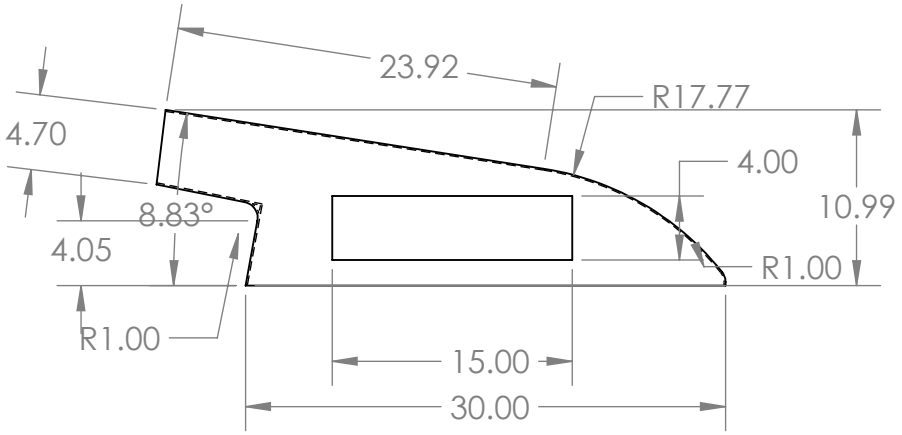
5 4 3 2 1

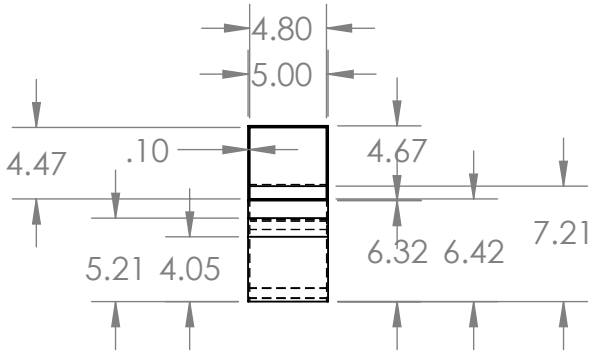
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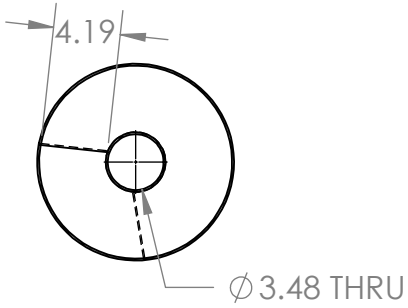


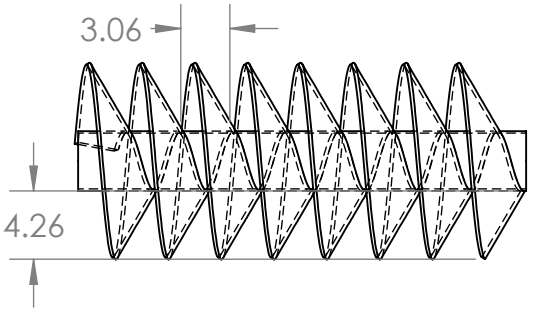


Georgia Tech College of Engineering	TITLE: **Snow Ejection Chute**		DATE: **5/3/2026**	NAME: **Harsith Rajesh**		
	COURSE: **ME 1670**	SEMESTER: **Spring 2026**	SECTION: **I**	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:12 SHEET 1 OF 1	SIZE: **A**

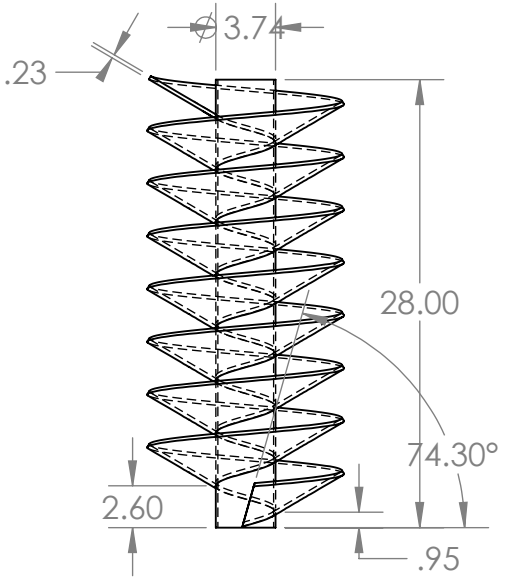
5 4 3 2 1

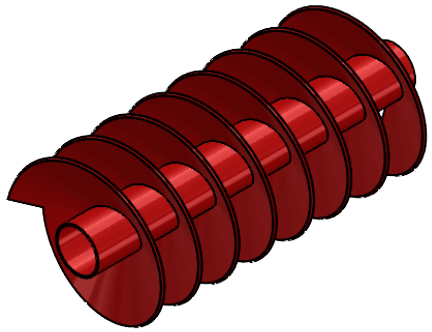
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8 Turns



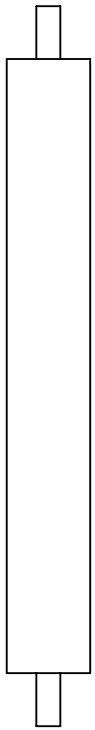


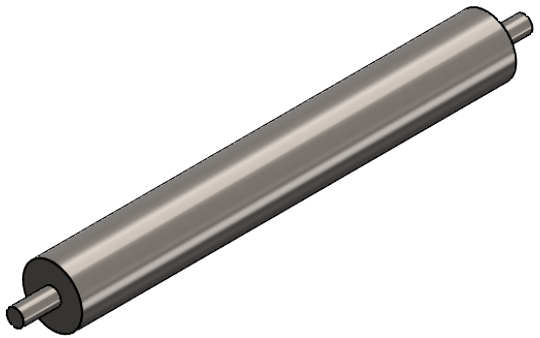
Georgia Tech College of Engineering	TITLE: **Auger**		DATE: **5/3/2026**	NAME: **Harsith Rajesh**			
	COURSE: **ME 1670**	SEMESTER: **Spring 2026**	SECTION: **I**	LAB		DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:12 SHEET 1 OF 1	SIZE: **A**

5 4 3 2 1

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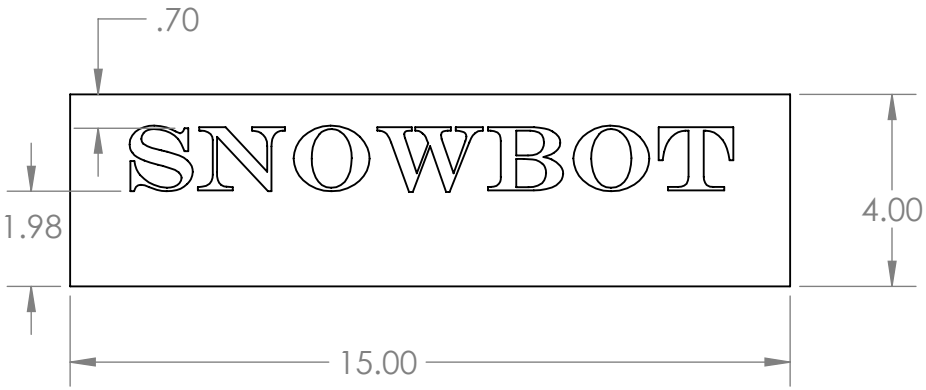


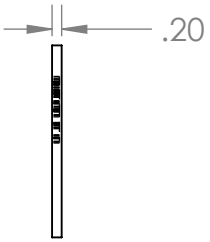


Georgia Tech College of Engineering	TITLE: **Auger Mount**		DATE: **5/3/2026**	NAME: **Harsith Rajesh**		
	COURSE: **ME 1670**	SEMESTER: **Spring 2026**	SECTION: **I**	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:8 | SHEET 1 OF 1	SIZE: **A**

5 4 3 2 1

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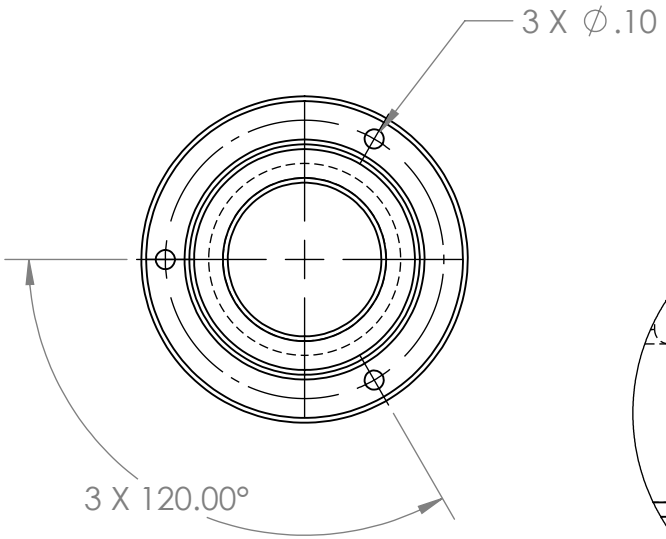


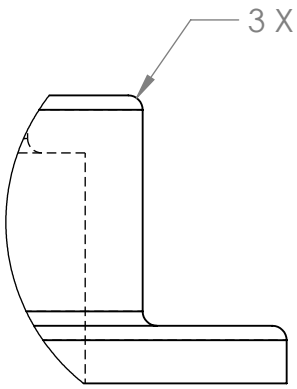
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Georgia Tech College of Engineering	TITLE: **SnowBot Title Card**		DATE: **5/3/2026**	NAME: **Harsith Rajesh**		
COURSE: **ME 1670**	SEMESTER: **Spring 2026**	SECTION: **I**	LAB	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SCALE 1:4	SHEET 1 OF 1	SIZE: **A**

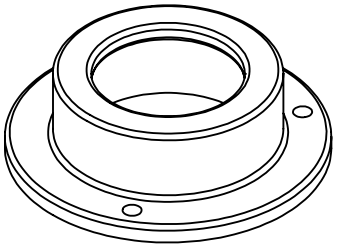
5 4 3 2 1

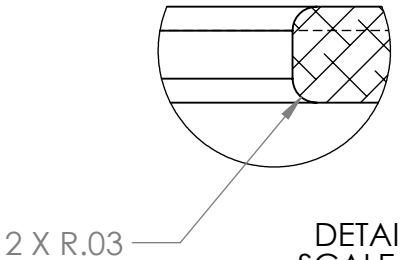
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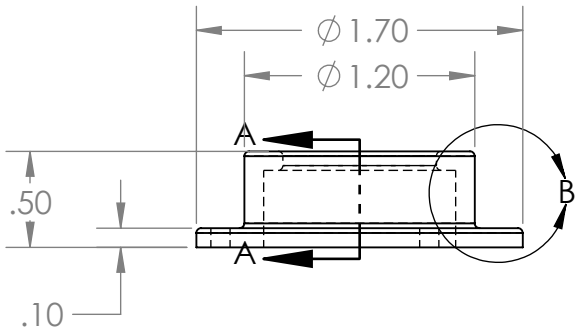


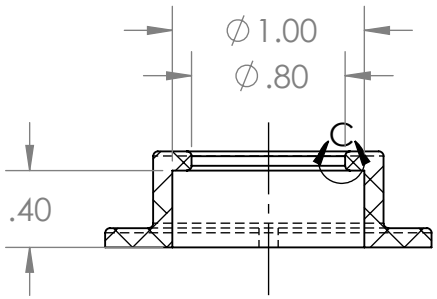
DETAIL B
SCALE 3 : 1





DETAIL C
SCALE 5 : 1





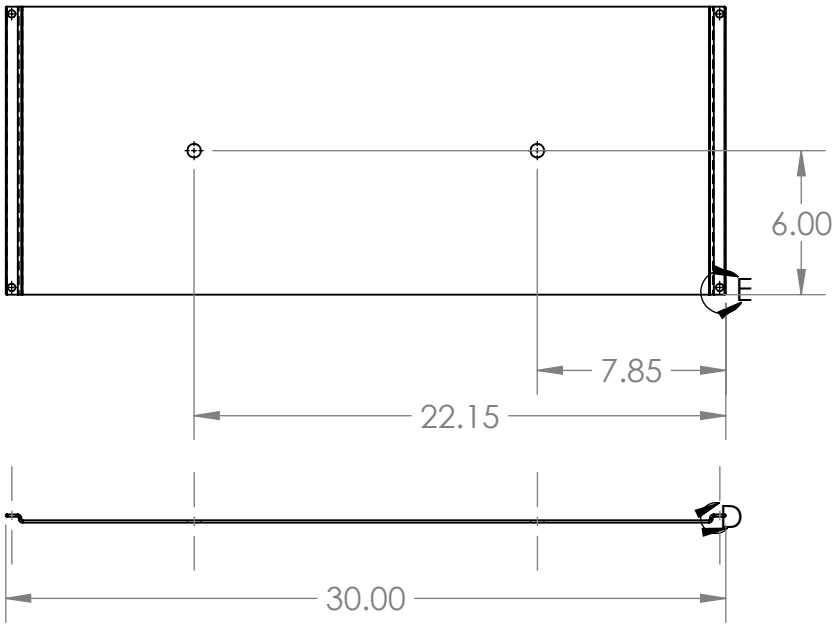
SECTION A-A

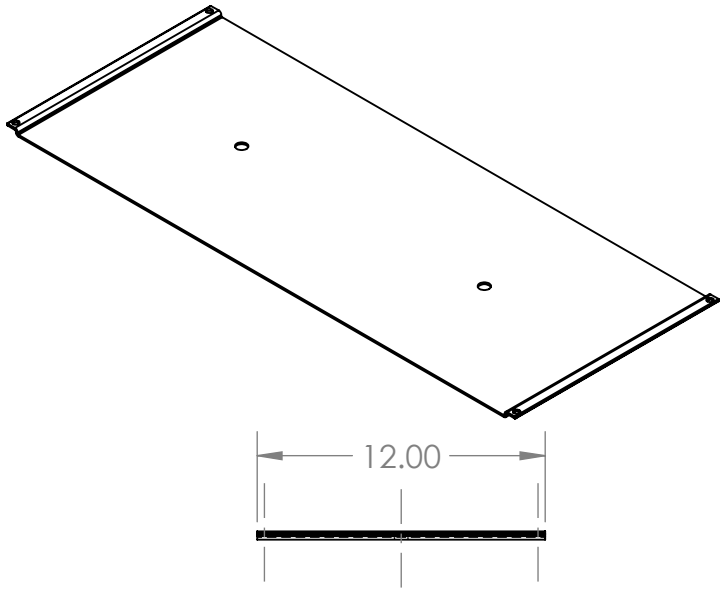
Georgia Institute of Technology	TITLE: CAMERA MOUNT		DATE: 5/4/2026	NAME: ELLA CAMACHO			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY: TEAM PROJECT	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:1 / SHEET 1 OF 3	SIZE: A

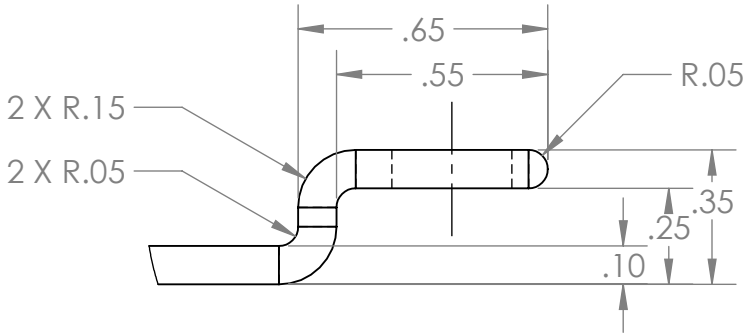
5 4 3 2 1

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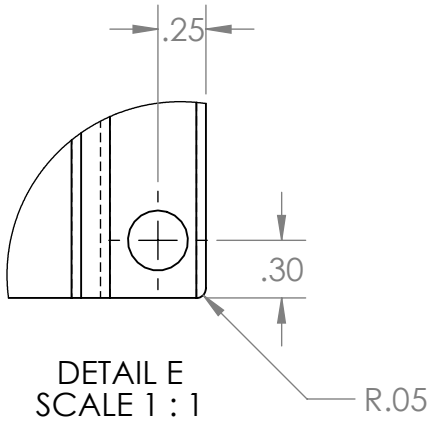
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DETAIL D
SCALE 2 : 1

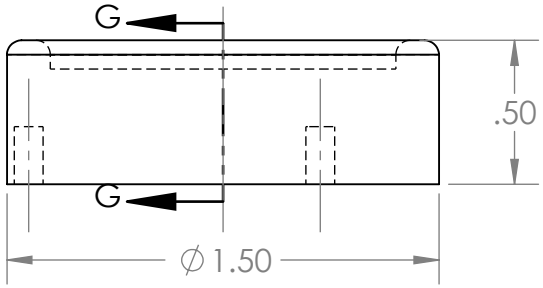


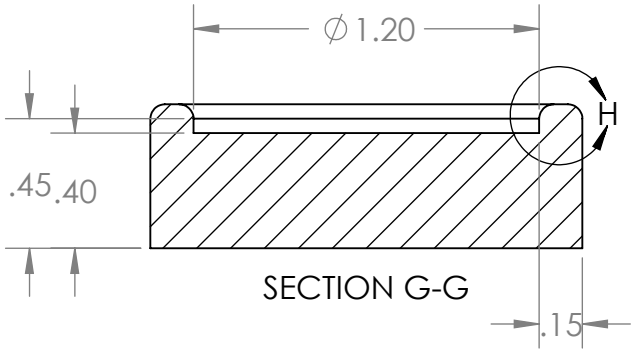
DETAIL E
SCALE 1 : 1

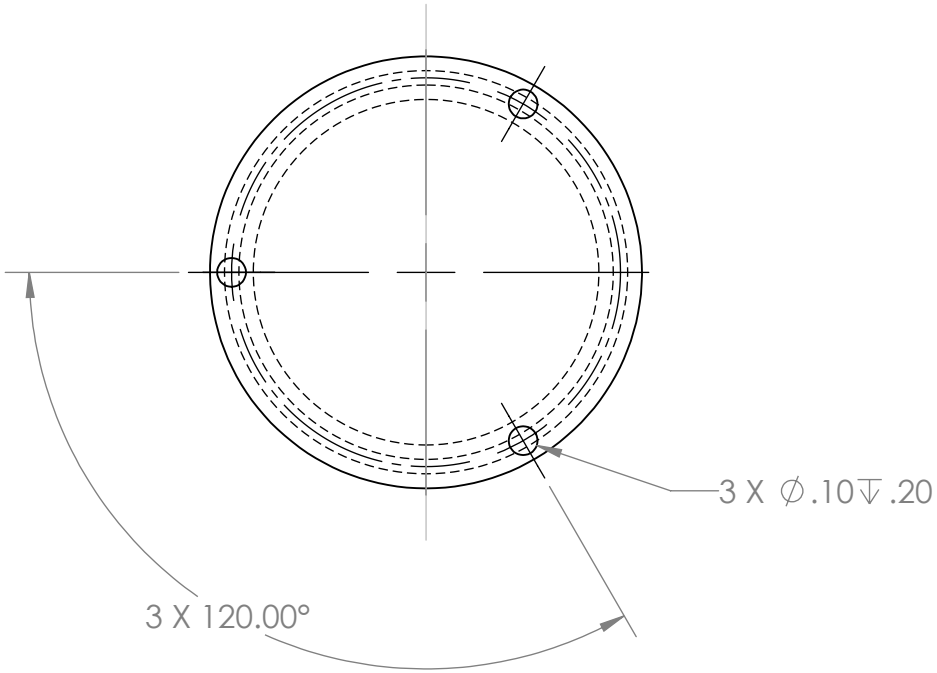
Georgia Institute of Technology	TITLE: SCRAPER MOUNT		DATE: 5/4/2026	NAME: ELLA CAMACHO			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY: TEAM PROJECT	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:8 | SHEET 2 OF 3	SIZE: A

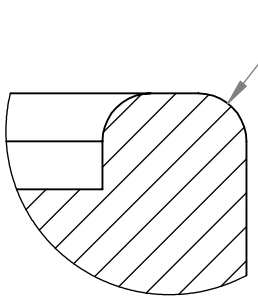
5 4 3 2 1

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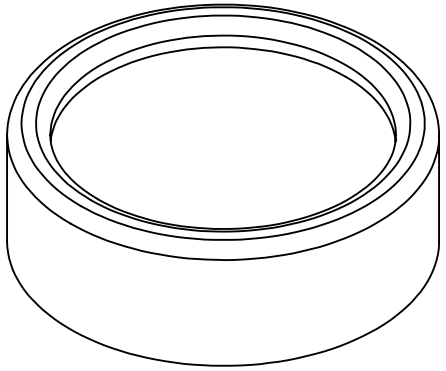








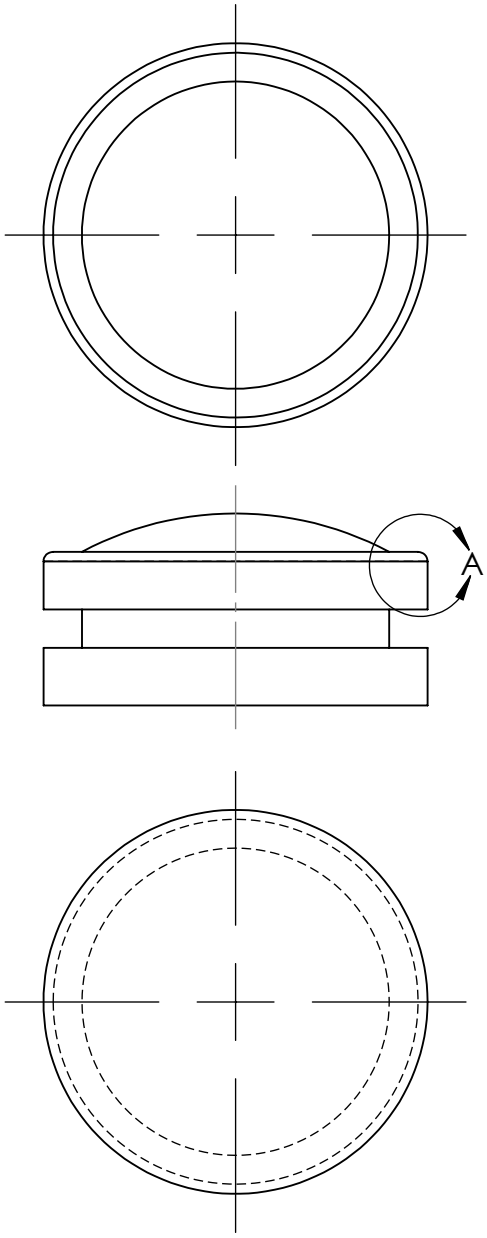
DETAIL H
SCALE 5 : 1

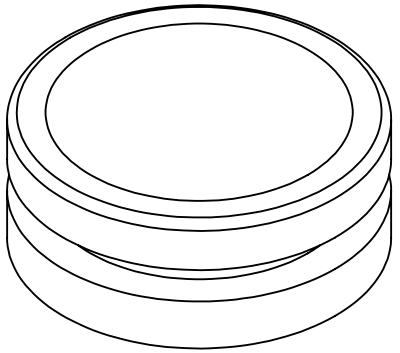


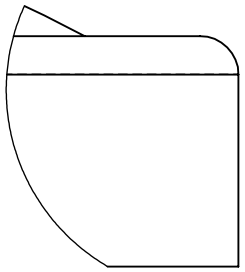
Georgia Institute of Technology	TITLE: LIGHT		DATE: 5/4/2026	NAME: ELLA CAMACHO			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY: TEAM PROJECT	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1.5:1 SHEET 3 OF 3	SIZE: A

5 4 3 2 1

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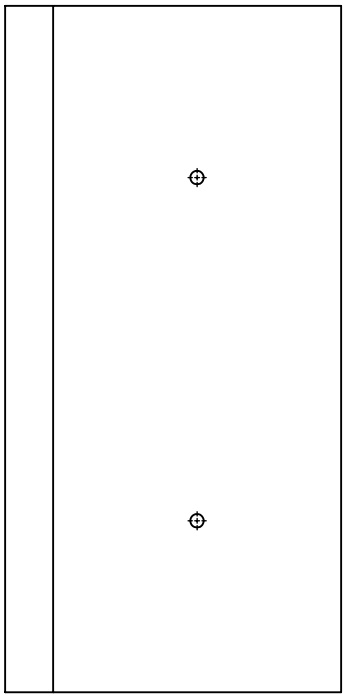


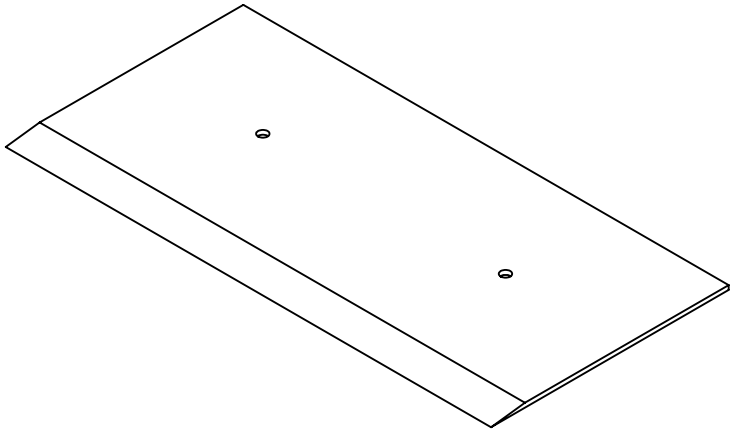
DETAIL A
SCALE 8 : 1

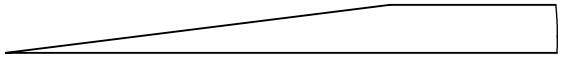
Georgia Institute of Technology	TITLE: CAMERA		DATE: 5/4/2026	NAME: ELLA CAMACHO			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY: TEAM PROJECT	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 2:1 | SHEET 1 OF 2	SIZE: A

5 4 3 2 1

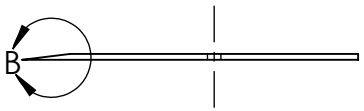
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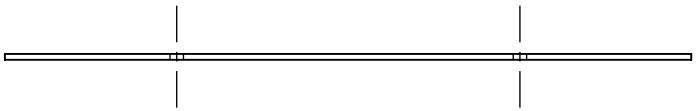






DETAIL B
SCALE 1 : 1



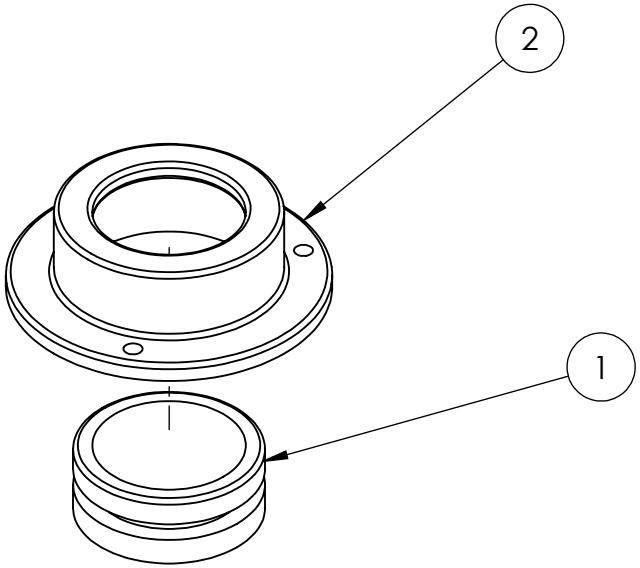


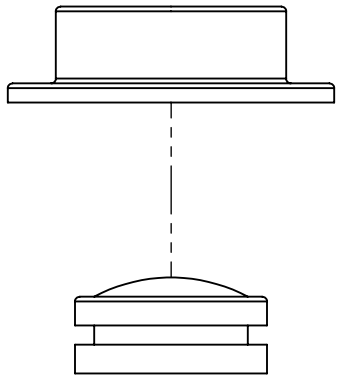
Georgia Institute of Technology	TITLE: SCRAPER		DATE: 5/4/2026	NAME: ELLA CAMACHO			
COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY: TEAM PROJECT	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SCALE 1:8	SIZE: A
						SHEET 2 OF 2	

5 4 3 2 1

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	CameraLens		1
2	CameraMount		1



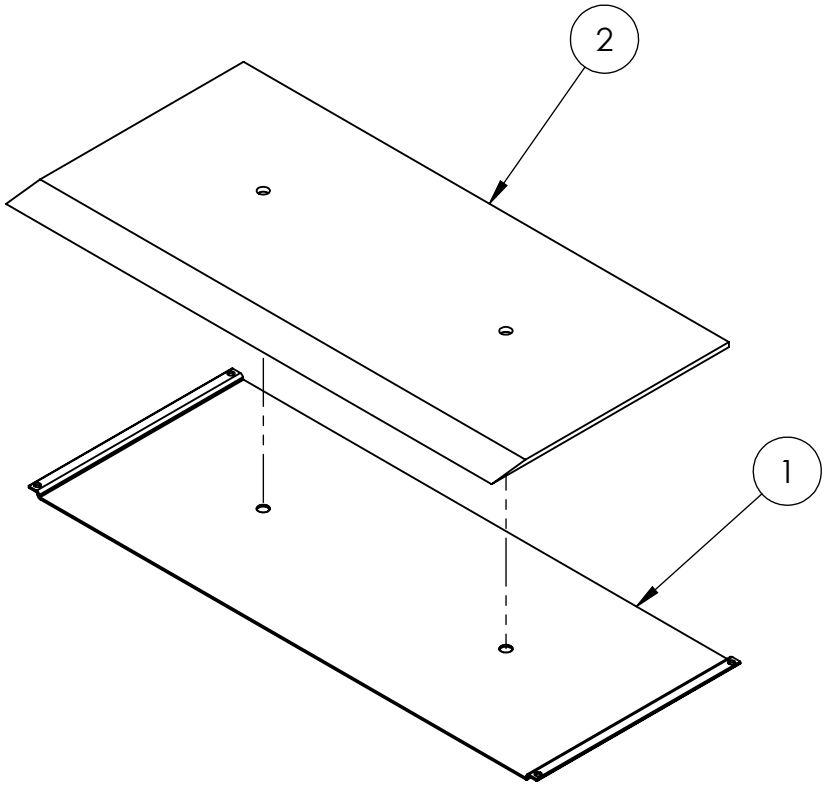


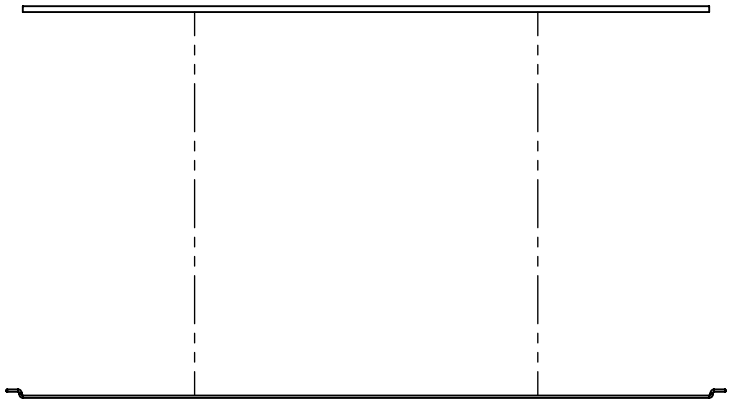
Georgia Institute of Technology	TITLE: CAMERA SUBASSEMBLY		DATE: 5/4/2026	NAME: ELLA CAMACHO			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:4 | SHEET 1 OF 3	SIZE: A

5 4 3 2 1

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ScraperMount		1
2	ScraperPlate		1



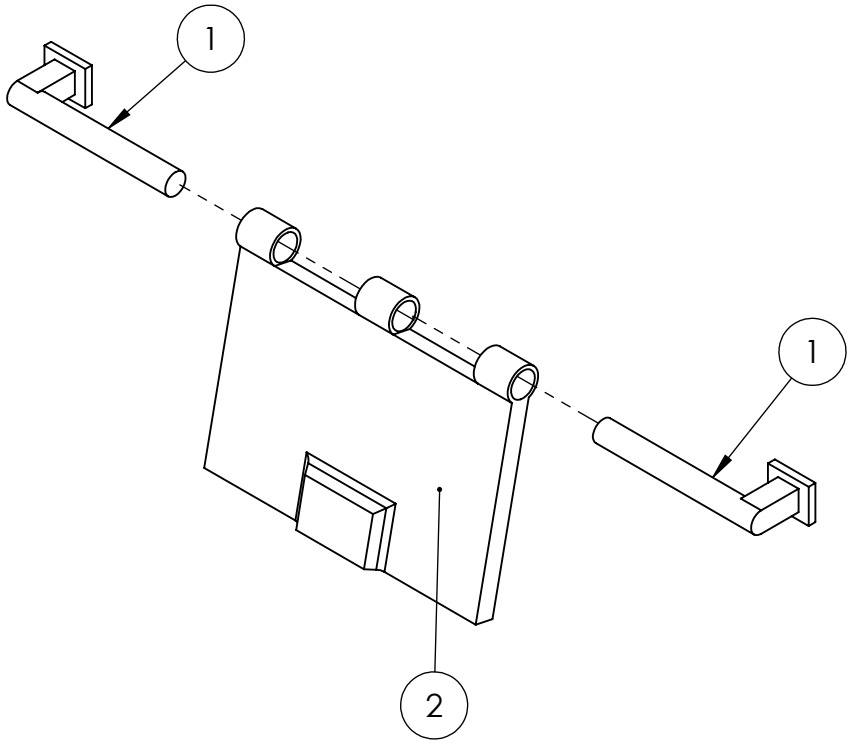


Georgia Institute of Technology	TITLE: SCRAPER SUBASSEMBLY		DATE: 5/4/2026	NAME: ELLA CAMACHO			
	COURSE: ME 1670	SEMESTER: SPRING 2026	SECTION: I	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE: A
						SCALE 1:8 SHEET 1 OF 3	

5 4 3 2 1

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ITEM NO.	PART NUMBER	MATERIAL	QTY.
1	Hinge	201 Annealed Stainless Steel	2
2	Hinge Cover	201 Annealed Stainless Steel	1



Georgia Institute of Technology

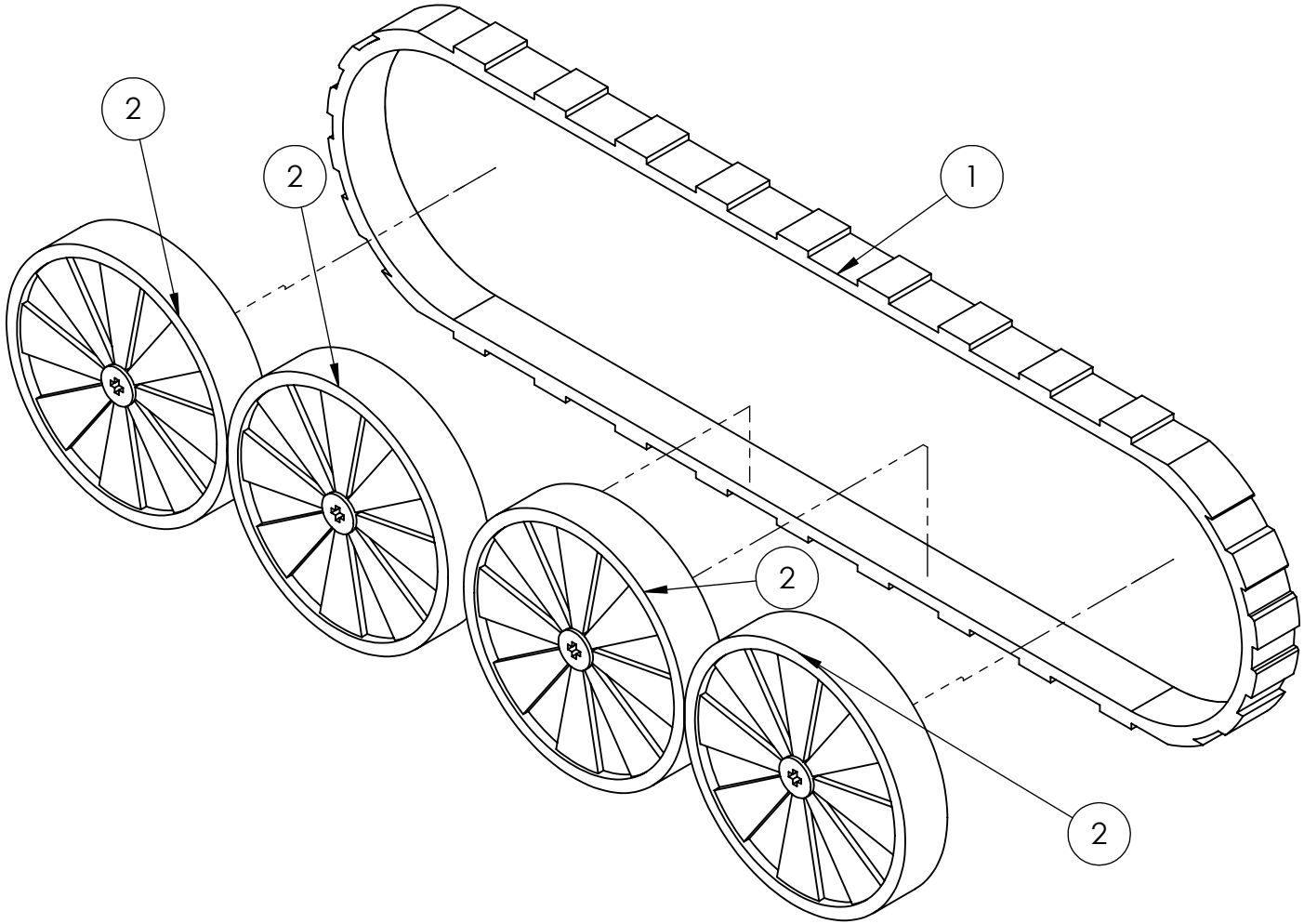
TITLE	DATE	NAME
Hinge-Cover Exploded	**4/29/2026**	**Shyam Sivan**

COURSE	SEMESTER	SECTION	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	**SPRING 2026**	**I**			SCALE 1:2 SHEET 1 OF 3	**A**

5 4 3 2 1

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ITEM NO.	PART NUMBER	MATERIAL	QTY.
1	Tread	RUBBER	1
2	Wheel	201 ANNEALED STAINLESS STEEL	4



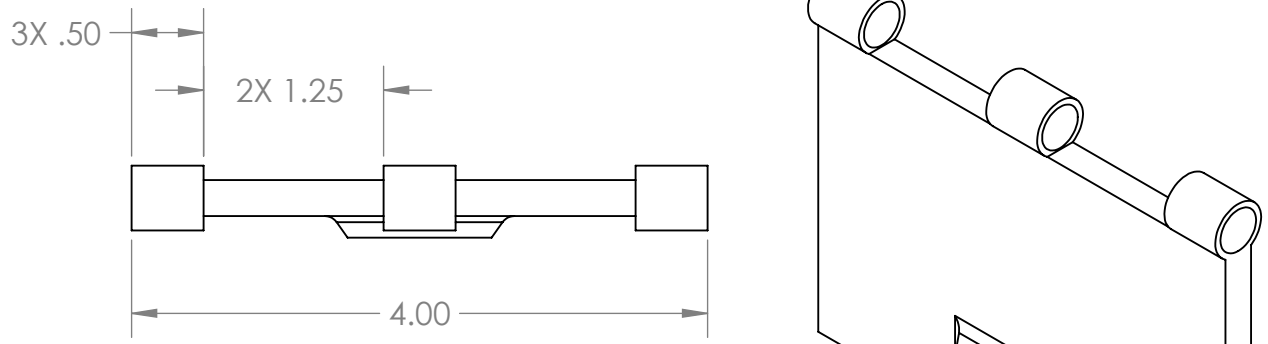
Georgia Institute of Technology

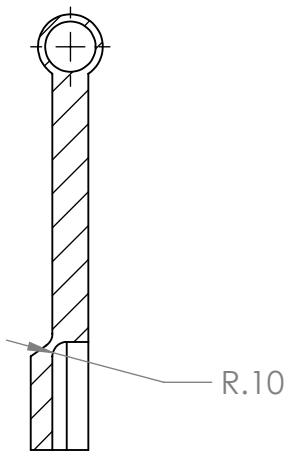
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	5/4/2026	

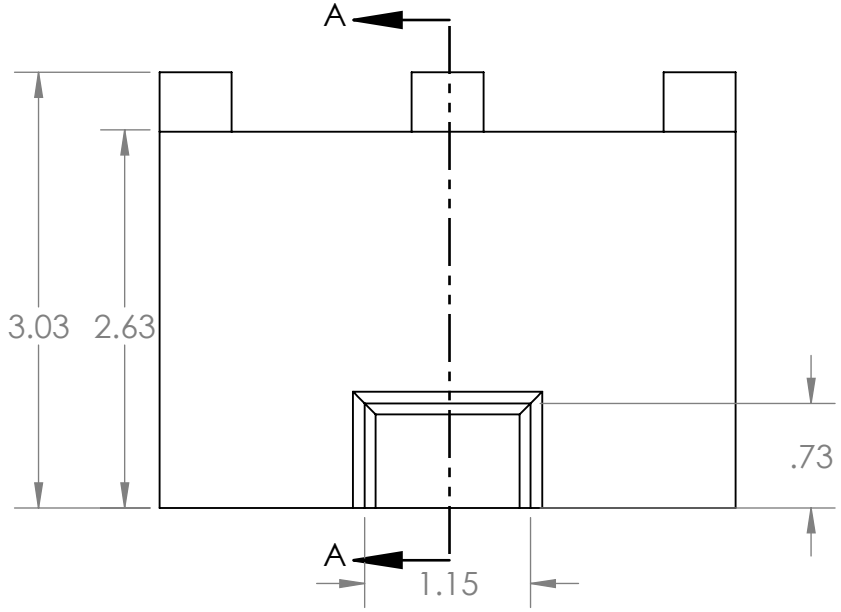
COURSE	SEMESTER	SECTION	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE
ME 1670	SPRING 2015	D			SCALE 1:12 SHEET 1 OF 3	A

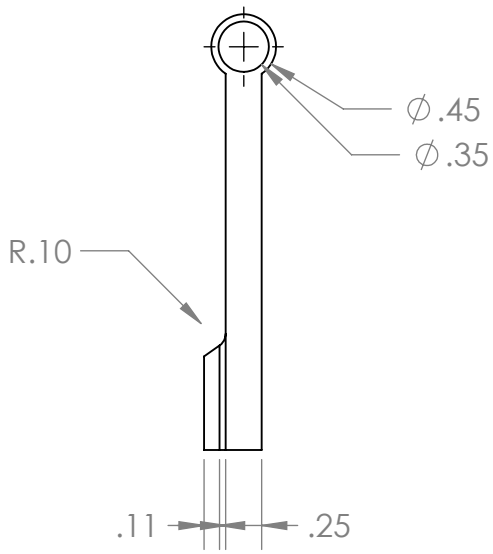
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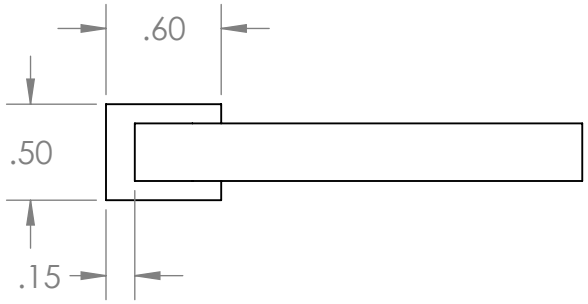


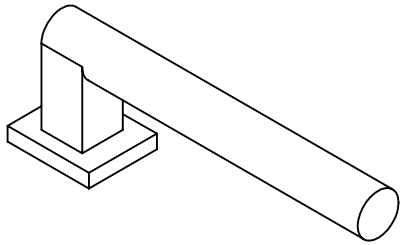
SECTION A-A
SCALE 3 : 4

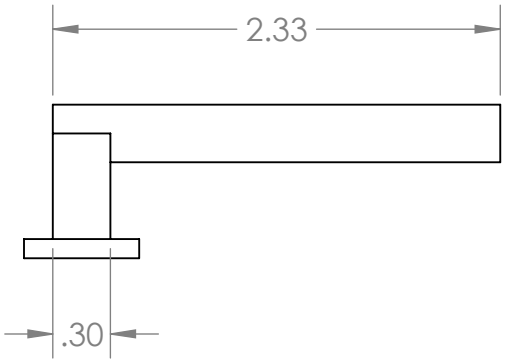
Georgia Institute of Technology	TITLE: **Hinge Cover**		DATE: **5/4/2026**	NAME: **Shyam Sivan**			
	COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:1 | SHEET 1 OF 3	SIZE: **A**

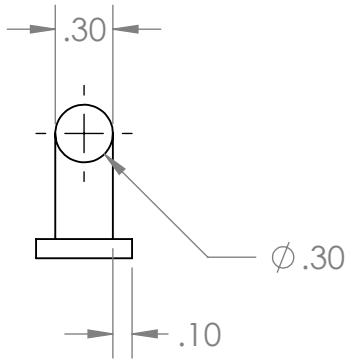
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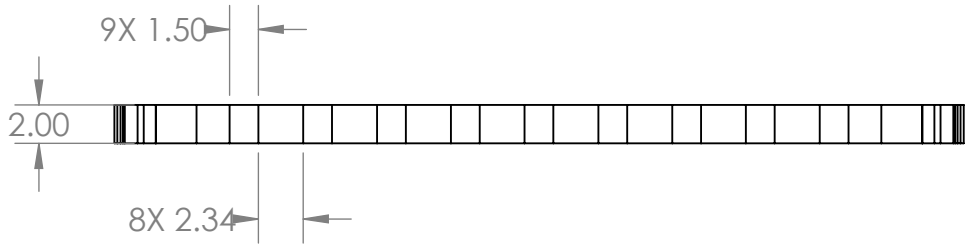


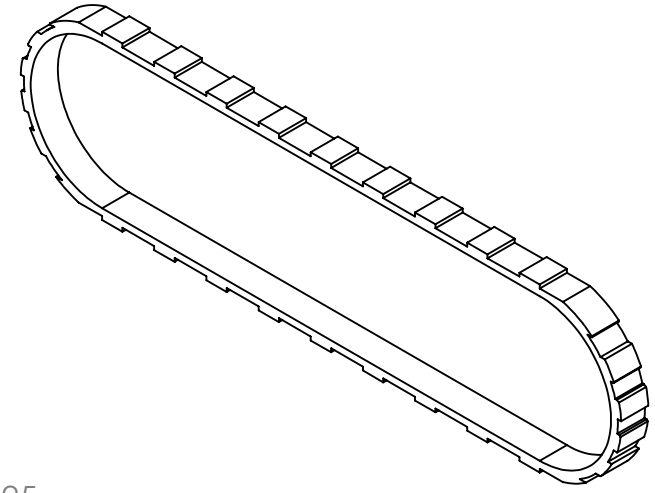


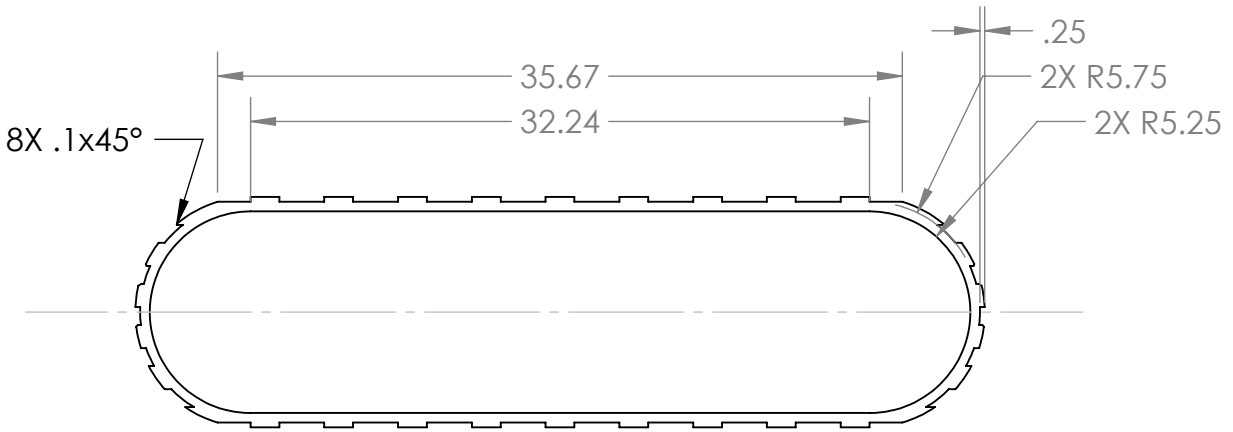
Georgia Institute of Technology	TITLE **Hinge**		DATE **5/4/2026**	NAME **Shyam Sivan**			
	COURSE **ME 1670**	SEMESTER **SPRING 2026**	SECTION **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:1 SHEET 1 OF 3	SIZE **A**

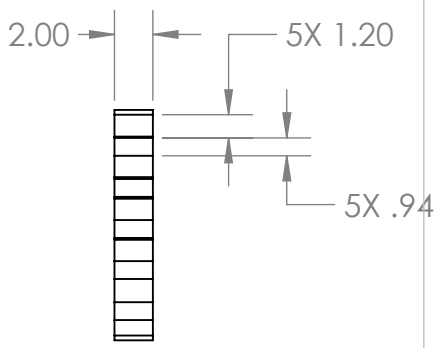
5 4 3 2 1

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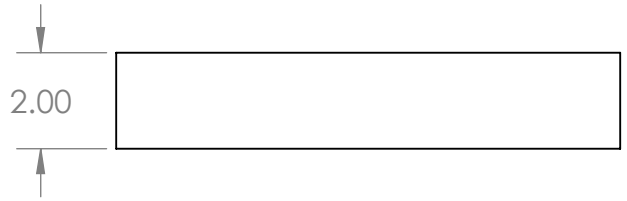


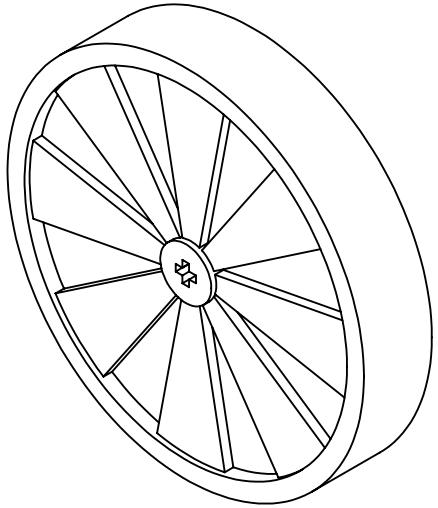


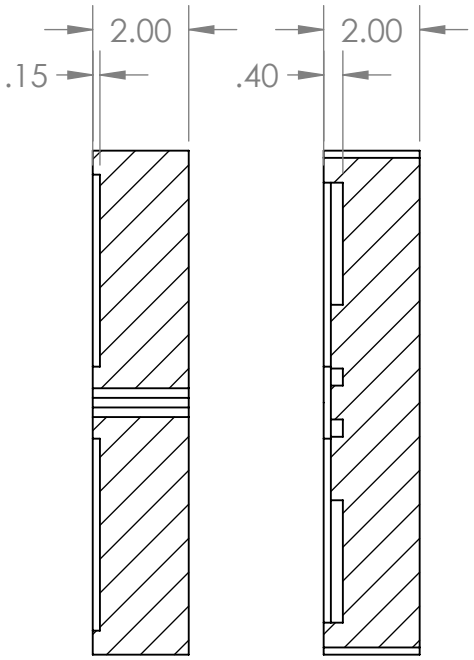
Georgia Institute of Technology	TITLE: **Tread**		DATE: **5/4/2026**	NAME: **Shyam Sivan**			
	COURSE: **ME 1670**	SEMESTER: **SPRING 2026**	SECTION: **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:8 | SHEET 1 OF 3	SIZE: **A**

5 4 3 2 1

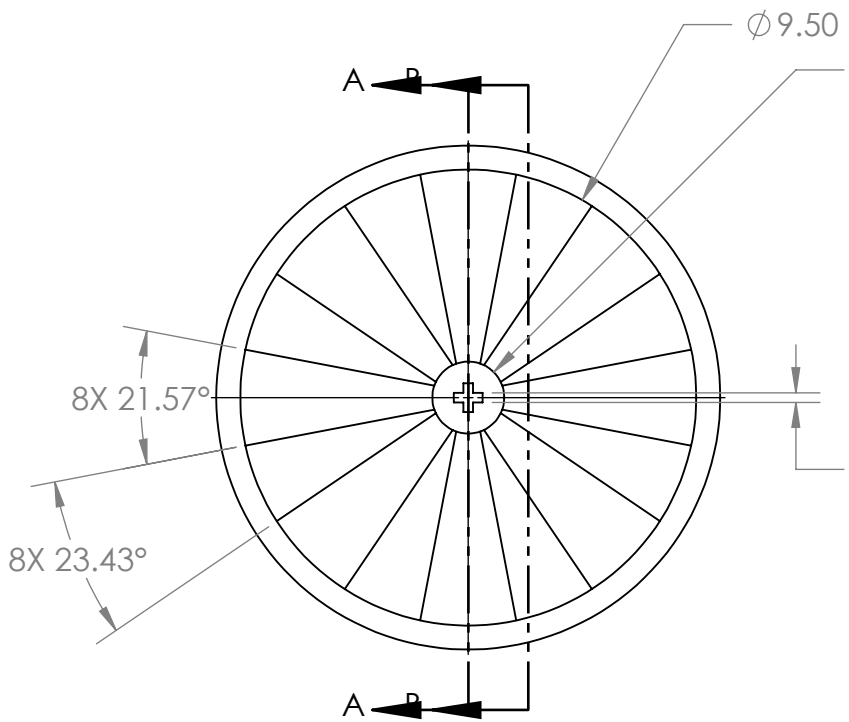
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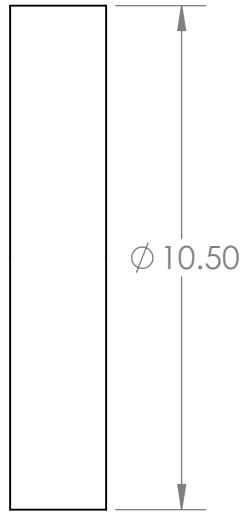






SECTION A-A SECTION B-B

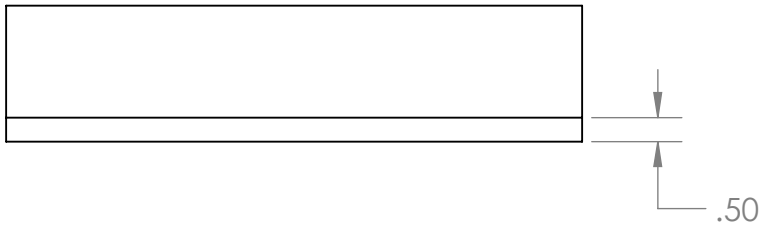


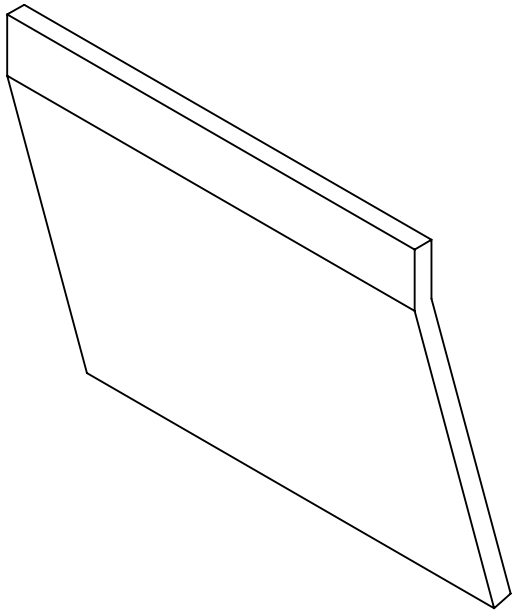


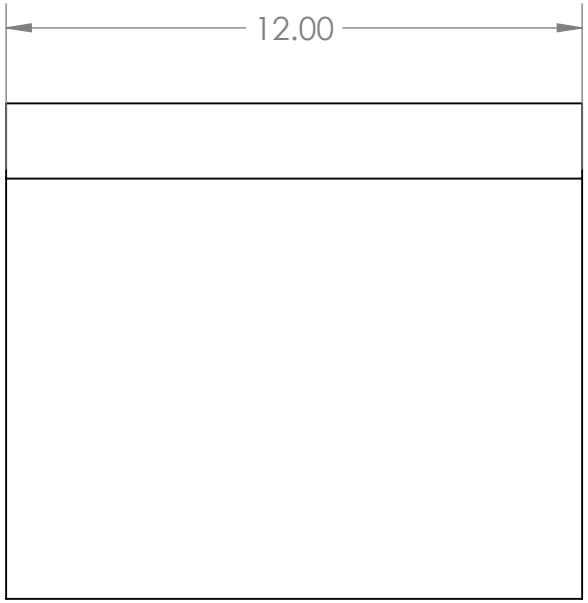
Georgia Institute of Technology	TITLE **Wheel**		DATE **5/4/2026**	NAME **Shyam Sivan**			
COURSE **ME 1670**	SEMESTER **SPRING 2026**	SECTION **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES	SIZE **A**	
					SCALE 1:4	SHEET 1 OF 3	

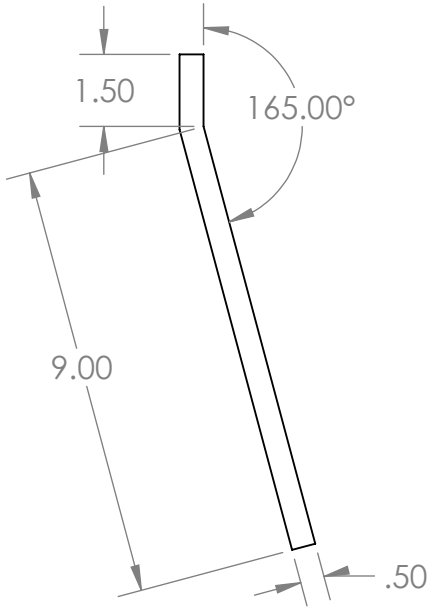
5 4 3 2 1

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Georgia Institute of Technology	TITLE **Flap**		DATE **5/4/2026**	NAME **Shyam Sivan**			
	COURSE **ME 1670**	SEMESTER **SPRING 2026**	SECTION **I**	LAB	ACTIVITY	DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES SCALE 1:4 SHEET 1 OF 3	SIZE **A**

5 4 3 2 1

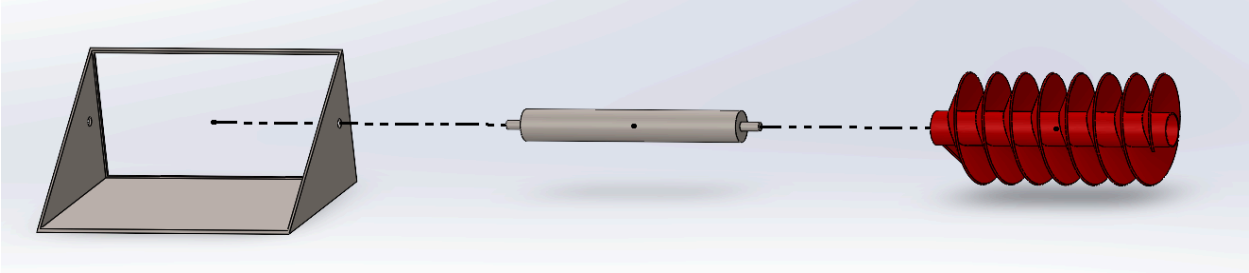
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Assembly Instructions

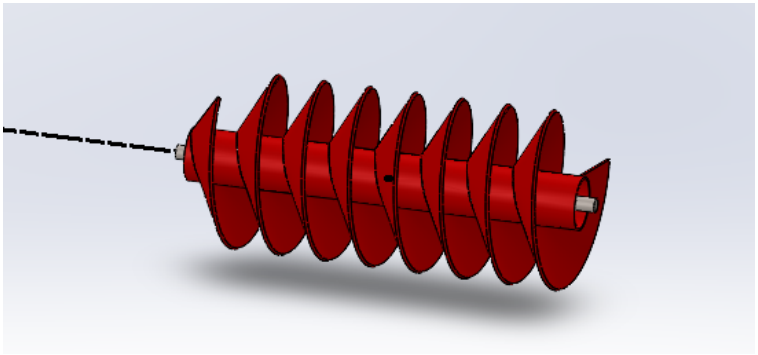
Component 1 - Snow Intake

Materials

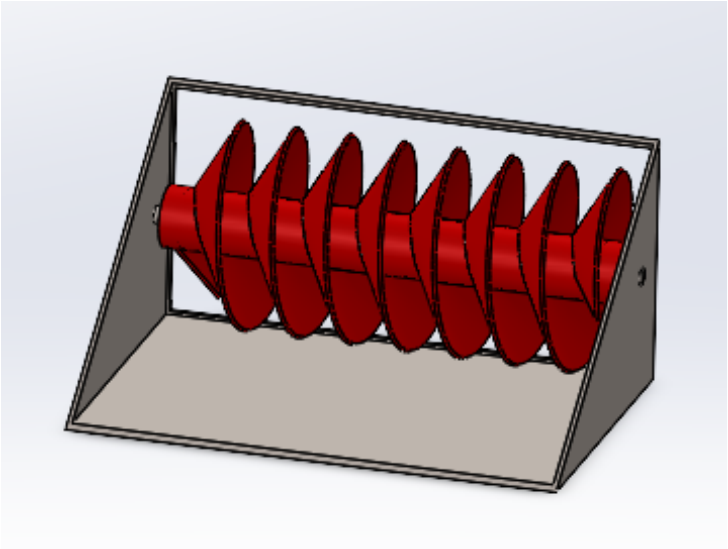
- Auger (1)
- Auger Mount (1)
- Snow Intake Opening (1)
- Scraper (1)
- Scraper Mount (1)



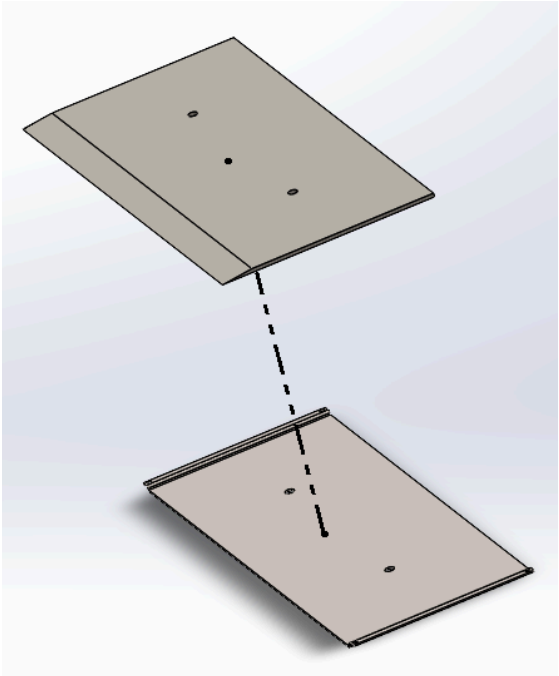
1. **Align the parts**
    - Place the snow intake opening, auger mount, and auger in a straight line. Make sure the auger mount and auger shaft are aligned with the holes on both sides of the snow intake opening.



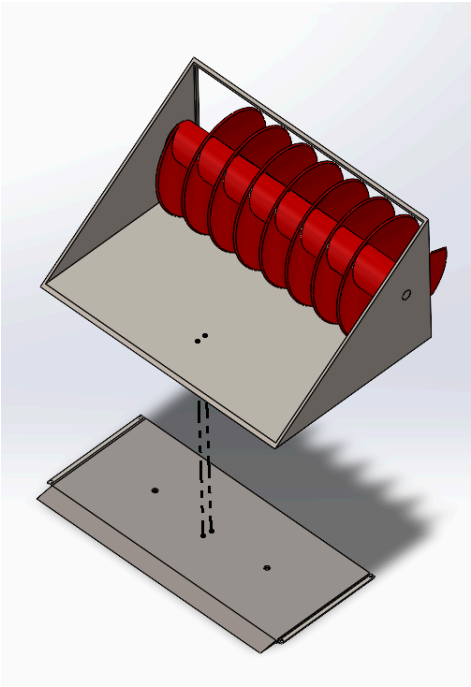
2. **Attach the auger**
    - Place the auger onto the auger mount. Make sure the auger is centered on the auger mount to ensure rotation.



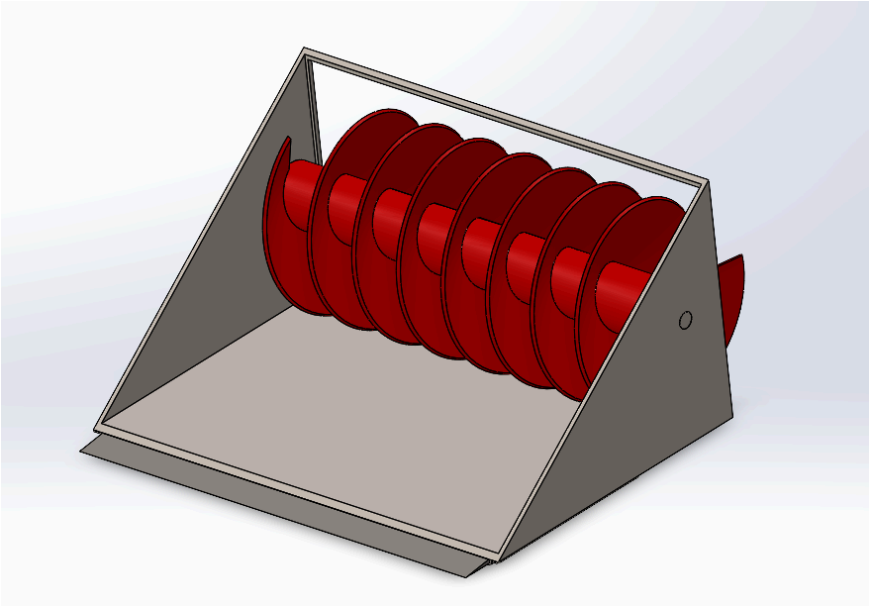
3. **Insert the auger mount**
    - Slide the auger mount into the snow intake opening. The mount should fit between the two side panels and line up with the side holes.



4. **Attach scraper onto scraper mount**
    - Place the scraper on top of the scraper mount, making sure the scraping edge extends past the mount and the holes are aligned.



5. **Attach scraper assembly onto auger assembly**
    - Position the scraper mount under the snow intake, align it with the middle two holes, and secure it with screws.

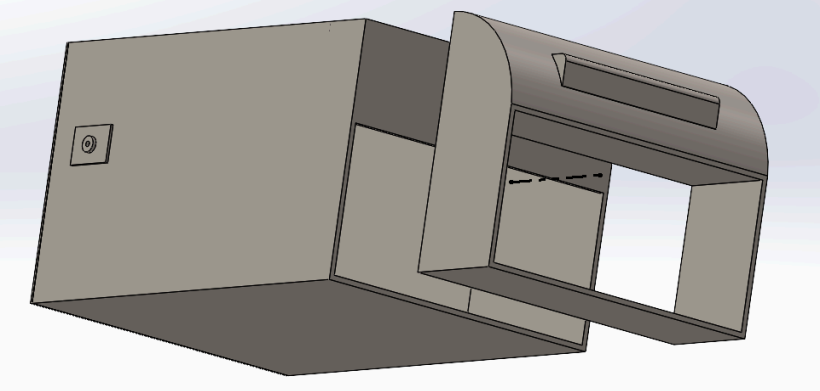


6. **Snow Intake assembly complete**

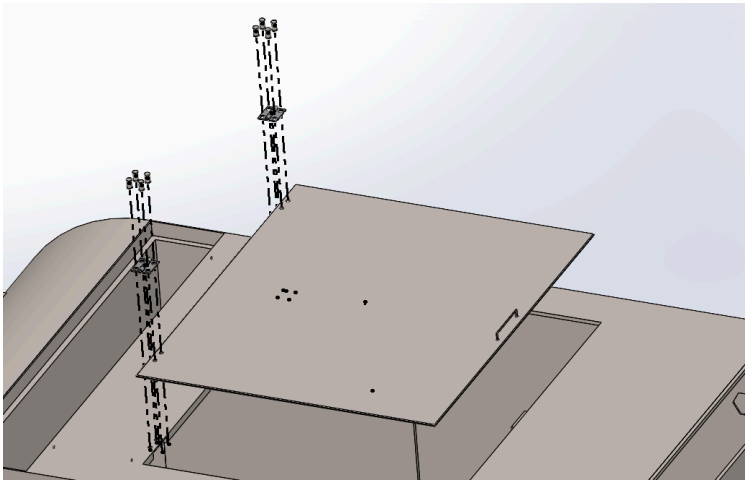
Component 2 - Central Body

Materials

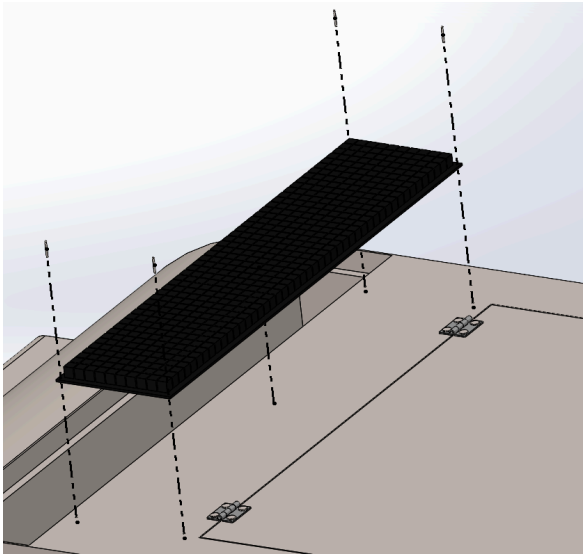
- Central Body (1)
- Rounded Front Face (1)
- Salt Lid (1)
- Salt Lid Hinge (2)
- Salt Lid Hinge Pin (8)
- Solar Panel (1)
- Solar Panel Pin (4)



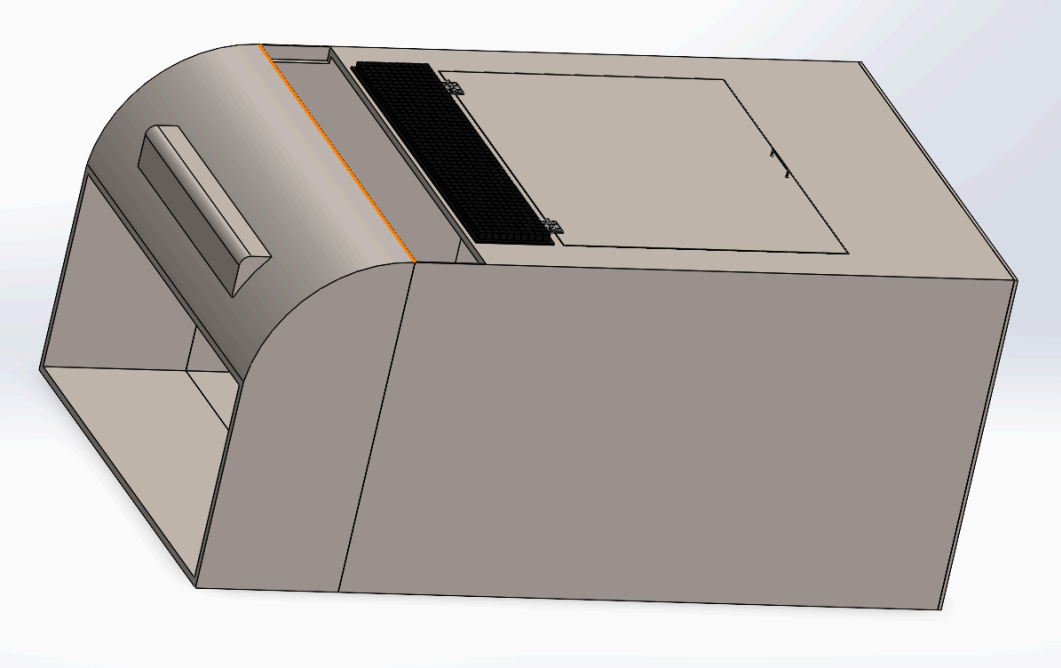
1. **Attach Front Rounded Face to Central Body**
    - Weld the front rounded face to the central body, making sure the parts are properly aligned.



2. **Attach Hinge onto Salt Lid and Central Body**
    - Align each hinge with the holes on the salt lid, then secure both hinges with pins.
    - Align the hinges with the holes near the middle of the central body, then secure them with pins so the salt lid can open and close.



3. **Attach Solar Panel onto Central Body**
    - Align the solar panel with the holes closest to the front rounded face, then secure it with pins.

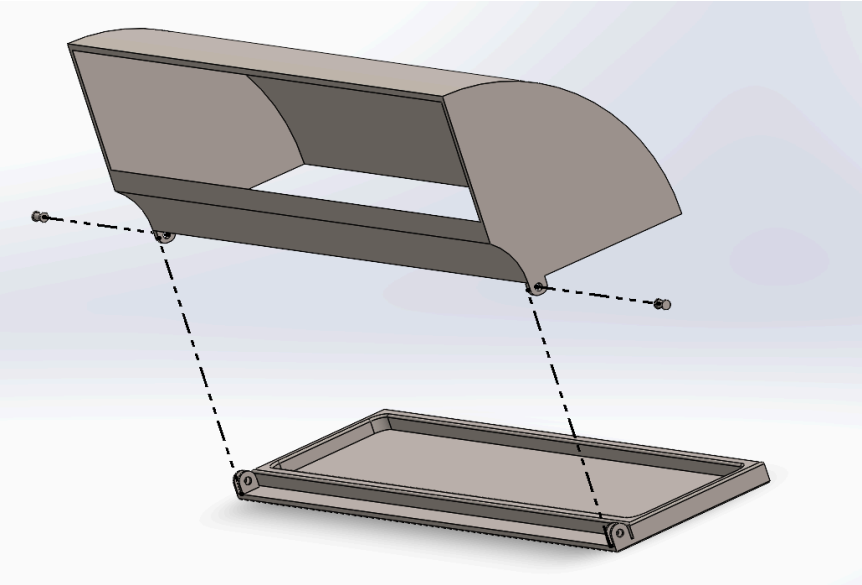


4. **Body Assembly Complete**

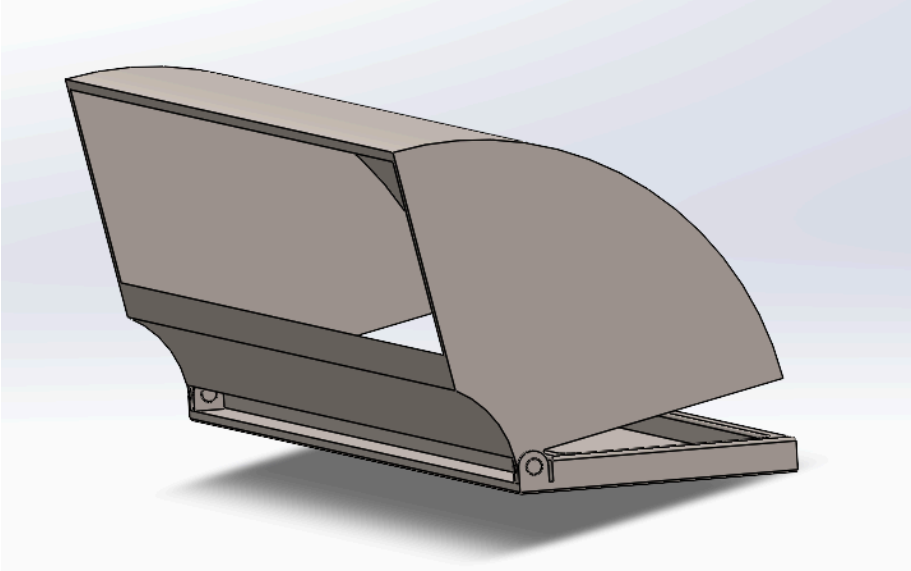
Component 3 - Salt Chute

Materials

- Salt Chute (1)
- Chute Flap (1)
- Hinge Pin (2)



1. **Attach Salt Chute with Chute Flap**
    - Align the chute flap with the salt chute, then secure it with pins so the flap can move freely.

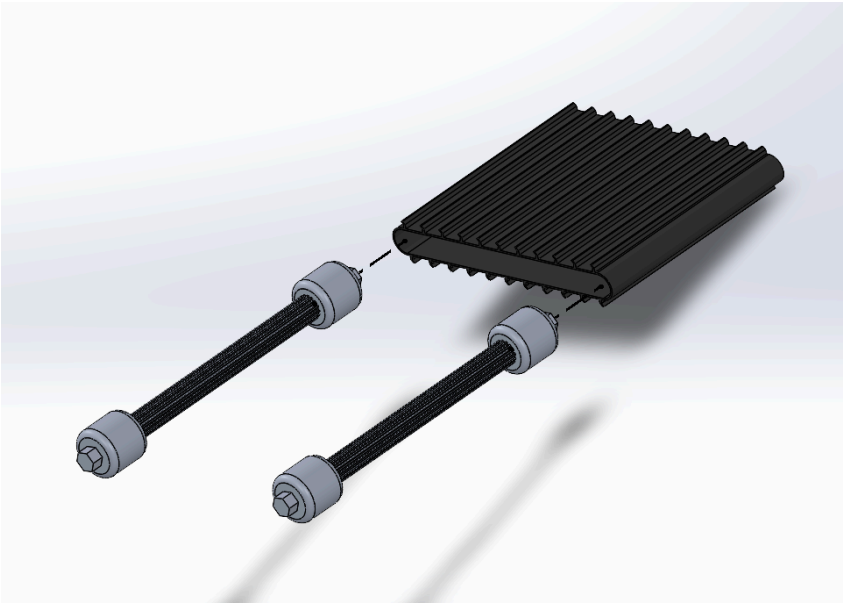


2. **Salt Chute Assembly Complete**

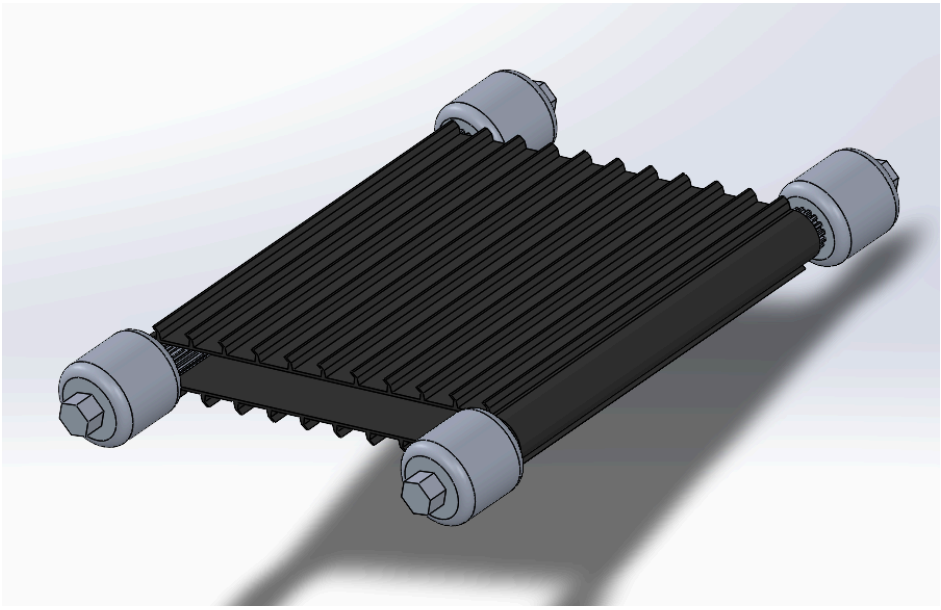
Component 4 - Salt Conveyor

Materials

- Belt (1)
- Conveyor Rod (2)



1. **Attach Conveyor Rods into Belt**
    - Align the rods with the ends of the belt, then slide them into place so the belt fits securely around the rods.

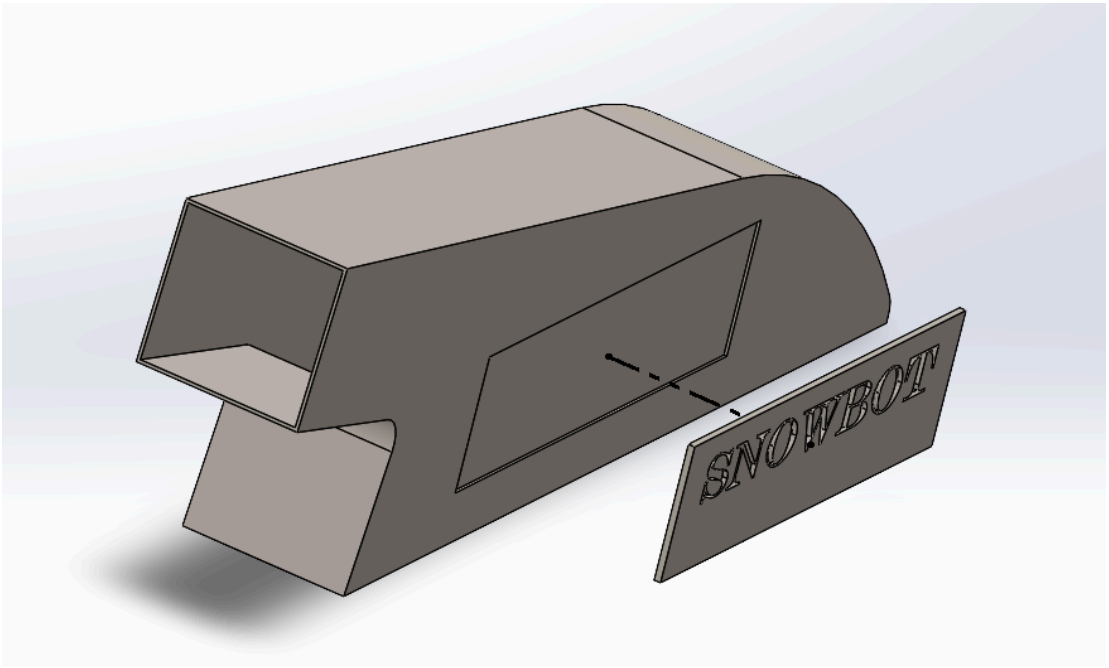


2. **Salt Conveyor Assembly Complete**

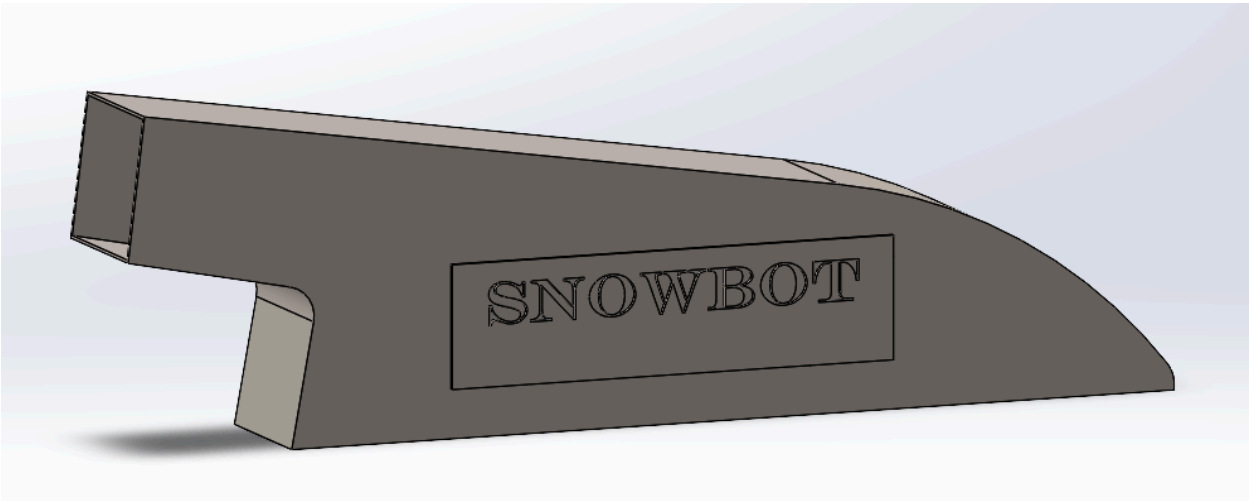
Component 5 - Snow Exhaust

Materials

- Snow Ejection Chute (1)
- Title Card (1)



1. **Attach Title Card onto Snow Ejection Chute**
    - Align the title card with the side of the snow ejection chute, then press it into place until the magnets click securely.

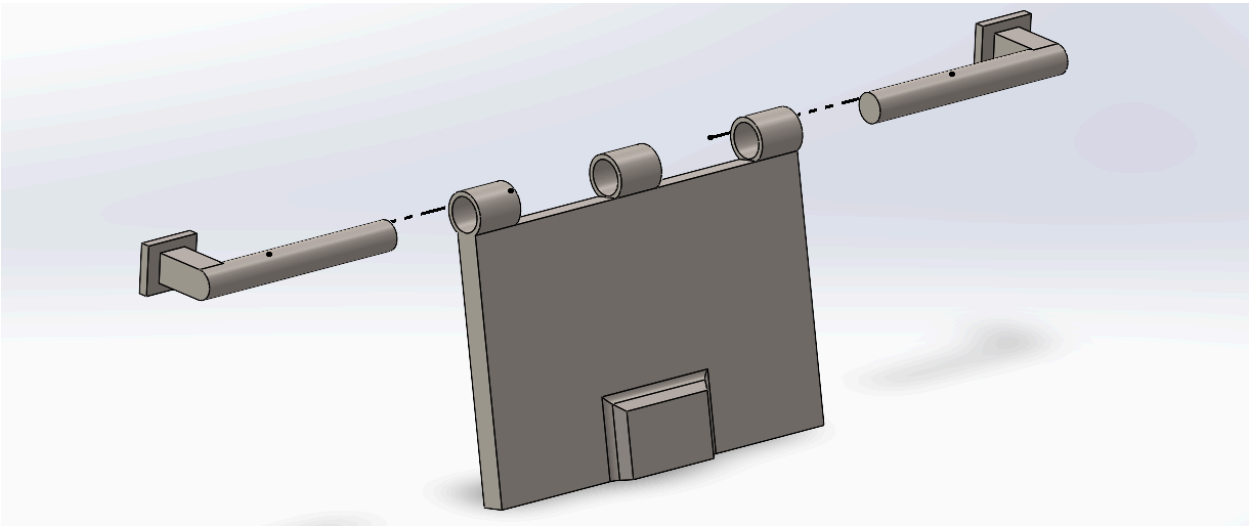


2. **Snow Exhaust Assembly Complete**

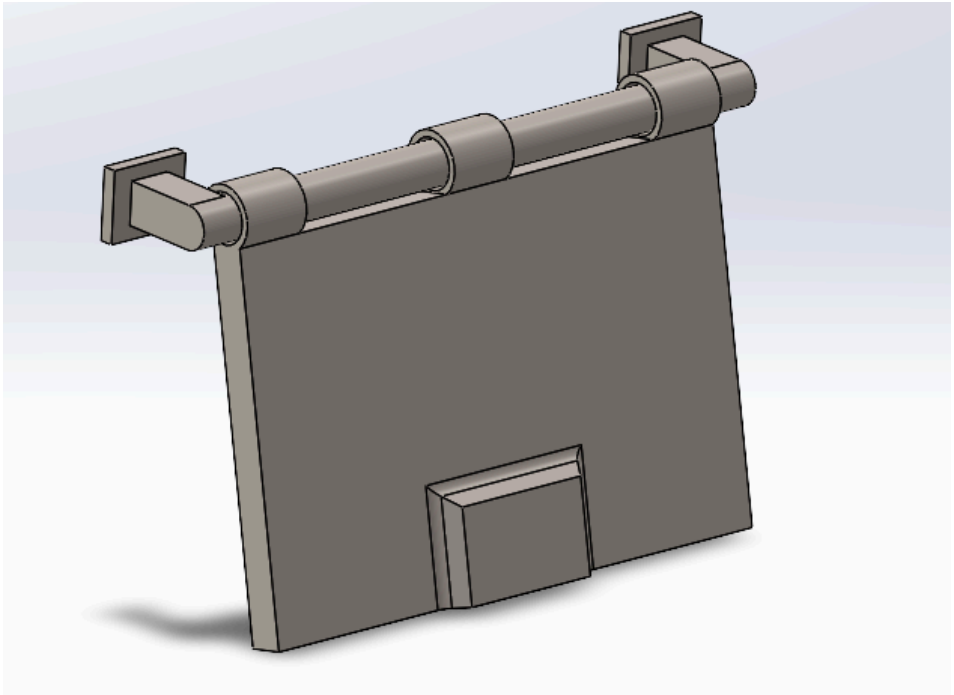
Component 6 - Hinge Cover

Materials

- Hinge (2)
- Hinge Cover (1)



1. **Attach Hinge Cover to Hinges**
    - Slide hinge cover onto one hinge, and then slide the other hinge into the hinge cover to close it off. It should snap automatically with magnets

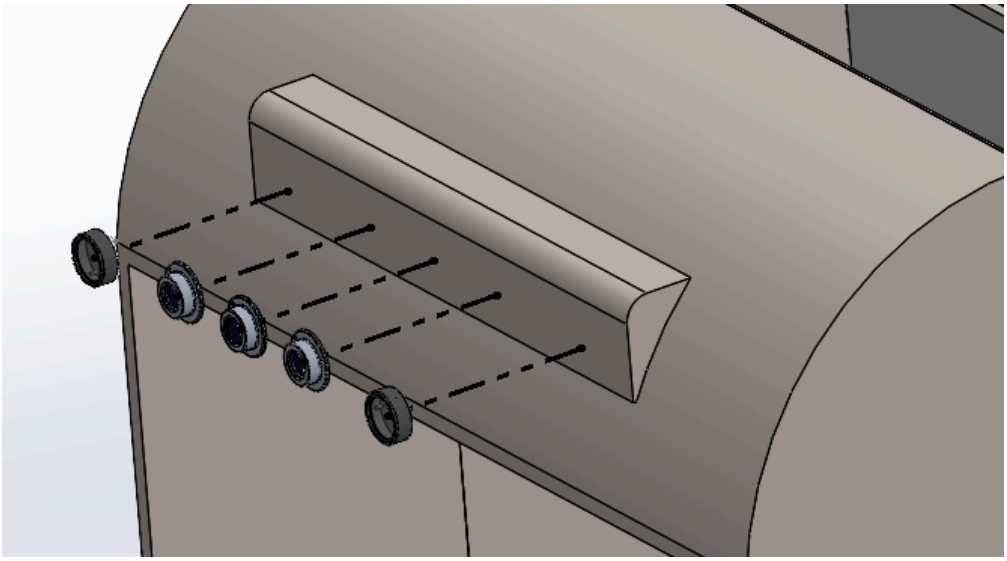


2. **Hinge Cover Assembly Complete**

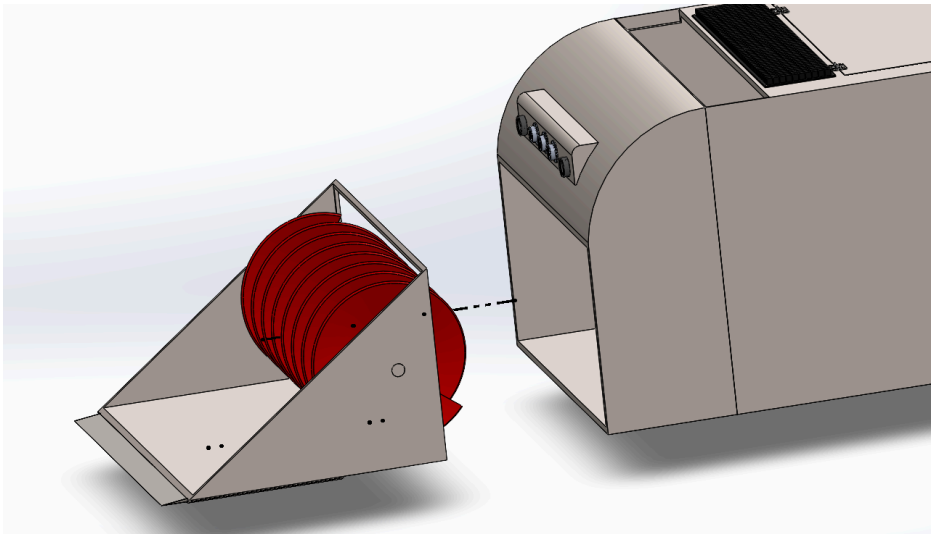
Full Assembly

Materials

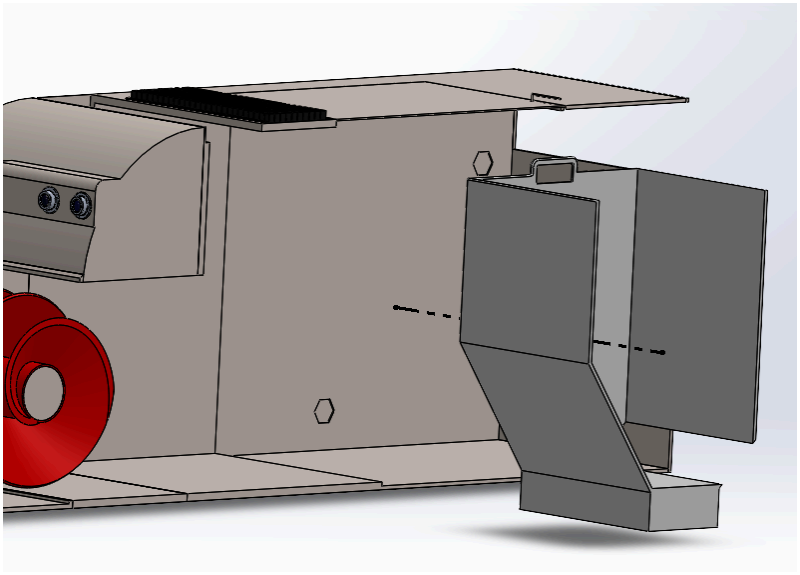
- Snow Intake Assembly (1)
- Central Body Assembly (1)
- Salt Chute Assembly (1)
- Salt Conveyor Assembly (1)
- Snow Exhaust Assembly (1)
- Hinge Cover Assembly (1)
- Light (2)
- Camera (3)
- Salt Box (1)
- Back Plate (1)
- Threaded Wheel System (2)
- Flap (2)



1. **Attach Lights and Cameras to Front Rounded Face**
    - Align the wirelessly powered lights and cameras with the marked positions on the front rounded face, then press them onto the face. Magnetic clicks indicate that they are secure and mounted in the correct place.

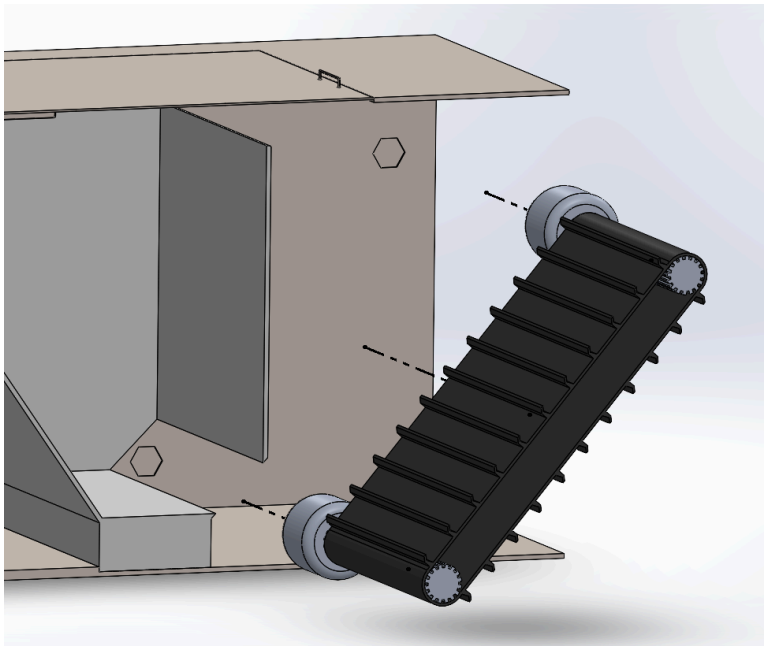


2. **Attach Snow Intake Assembly to Front Rounded Face**
    - Align the snow intake assembly with the rectangular opening below the front rounded face, then weld it securely in place.



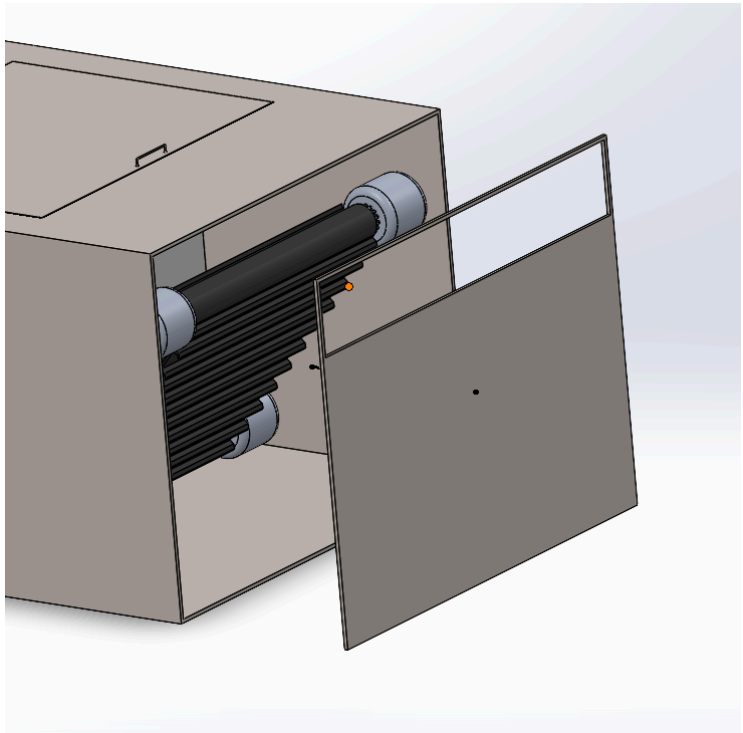
Interval View of Central Body

3. **Attach Salt Box into Central Body**
    - Slide the salt box through the rear opening of the central body, making sure it fits securely underneath the salt lid.

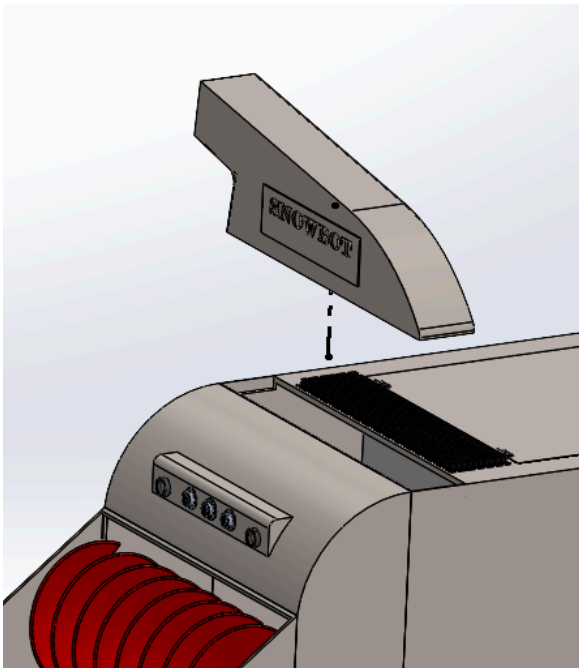


Internal View of Central Body

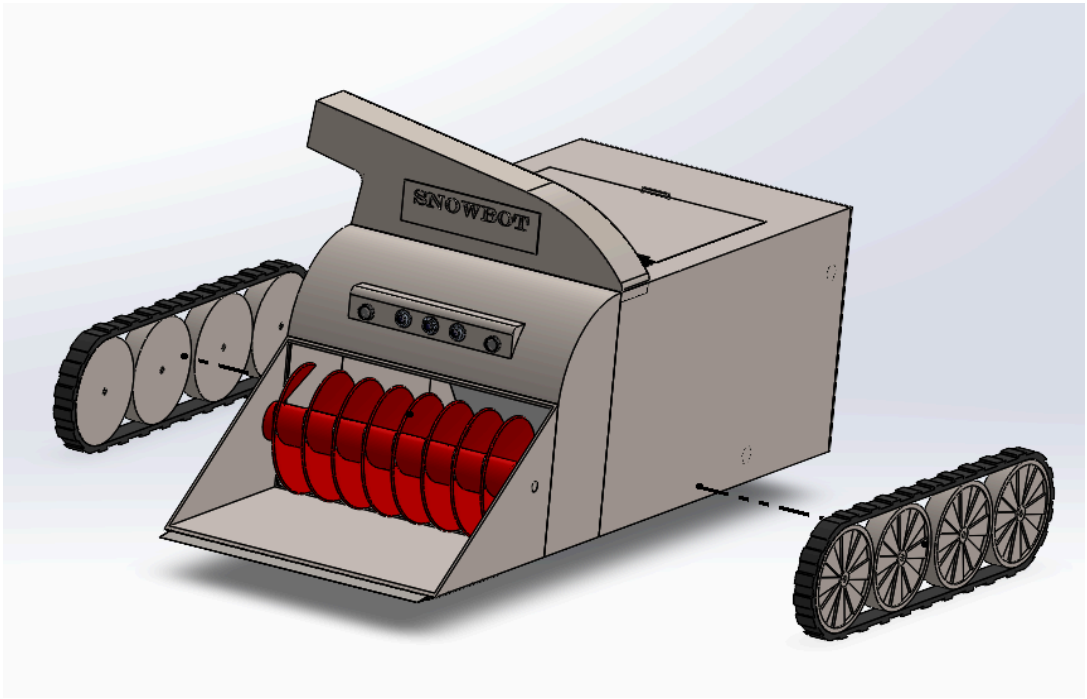
4. **Attach Salt Conveyor Assembly into Central Body**
    - Align the conveyor rods with the hexagonal cutouts inside the central body, then press the assembly into place until the magnets hold it securely.



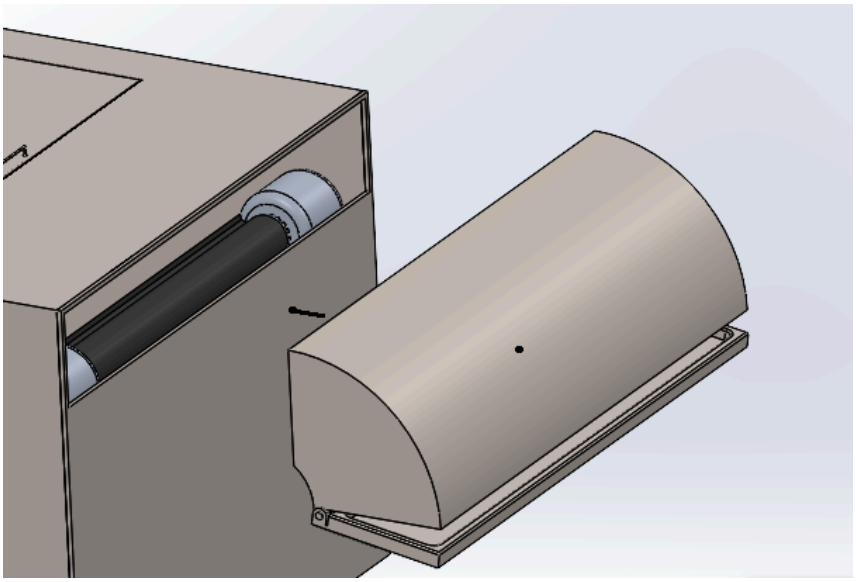
5. **Attach Back Plate to Central Body**
    - Align the back plate with the rear of the central body, then weld it securely in place.



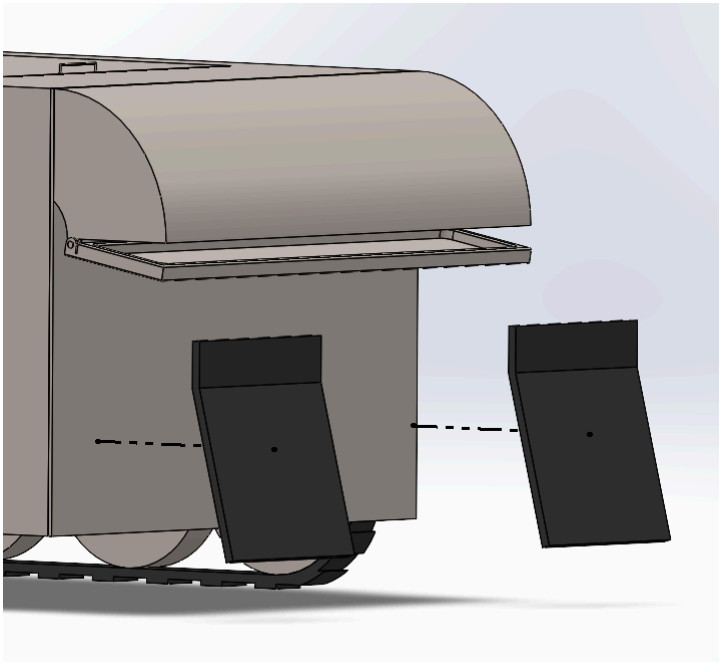
6. **Attach Snow Exhaust onto Central Body**
    - Align the snow exhaust in front of the solar panel, then weld it securely in place.



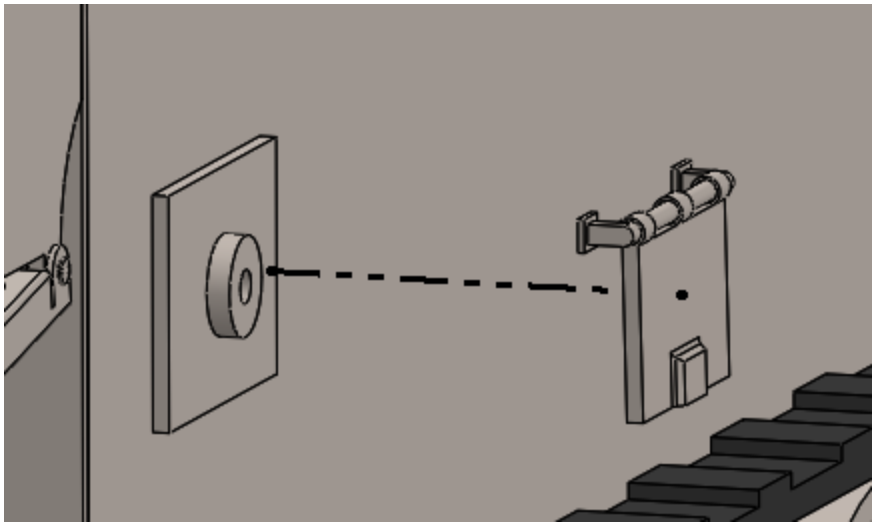
7. **Attach Threaded Wheel System onto Central Body**
    - Align the magnetic drive treads with the sides of the central body, a click indicates a solid connection to the body and successful pairing to the internal magnetic drive interface.



8. **Attach Salt Chute Assembly to Back Plate**
    - Align the rectangular back opening of the salt chute with the opening on the back plate, then weld it securely in place.

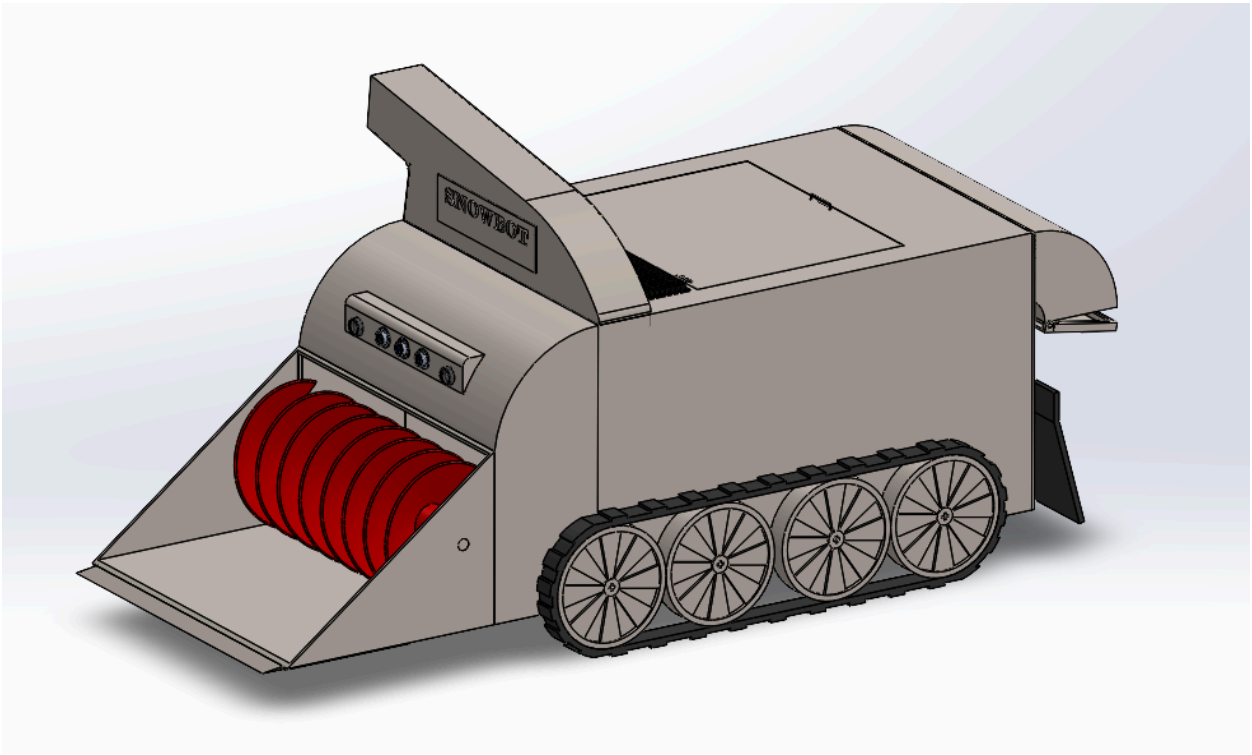


9. **Attach Flaps to Back Plate**
    - Align the flaps below the salt chute, then press them onto the back end of the body. Correct alignment is determined when a magnetic click is heard and you can feel a secure connection between the flap and the body.



10. Attach Hinge Cover Assembly onto Central Body

- Align the hinge cover feet with the upper edge of the rectangular outlet base, and make sure the cover is centered over the middle of the outlet base. Once it is aligned, weld the feet onto the outlet base.

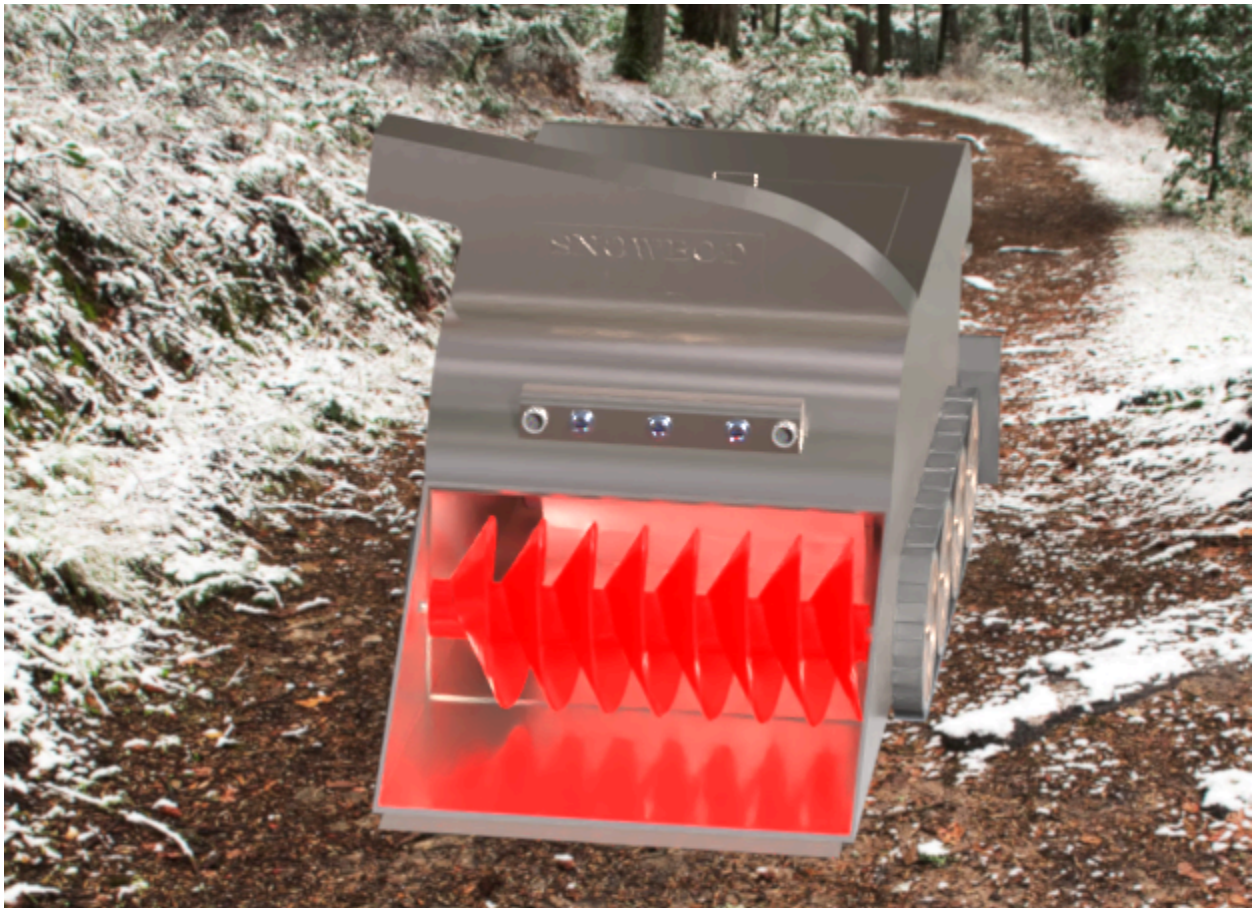


11. Full Assembly Complete

Renderings







Meeting Minutes

1. 02/17/26:
    a. Met at the Georgia Tech School of Mechanical Engineering. This is where we all met up to talk about different ideas on what our team project should be about. This is where we used a mix of Austin and Ella's sketches and came up with the snowbot. We discussed what parts we individually need and are required to make, assigned roles to each of us, and drew how the final product is going to look like.
    b. Members P: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh
2. 03/09/26:
    a. Met at the Clough Undergraduate Commons. It was set up to talk about each individual part in a more detailed perspective and give each teammate more understanding on how to draw it on paper. We talked about how each part was going together and the main dimensions so the assembly was successful.
    b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh
3. 03/24/26:
    a. This meeting took place at the Georgia Tech School of Mechanical Engineering. The purpose of this was to see if we were all up to track with the parts and see if the CAD models were on the right track. We discovered many problems and talked about various different solutions on how we could improve to make the future individual subassemblies more efficient.
    b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh
4. 04/09/26:
    a. We met up at Georgia Tech School of Mechanical Engineering for this meeting. We went more in depth with the dimensions of the parts and wanted to see if it aligned with the other parts. If there were any problems, we made changes. By the next meeting we made it clear to finish all our subassemblies now that all our dimensions are accurate.
    b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh
5. 04/16/26:
    a. For this meeting we met up at the Georgia Tech School of Mechanical Engineering. This was to see the individual subassemblies and the functionalities they give out. We also

discussed ways on how we were going to attach all these subassemblies together. This definitely helped towards putting the final assembly all together.

   b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh

6. 04/21/26:

   a. This meeting took place at the Georgia Tech School of Mechanical Engineering. This is where we started putting the parts and subassemblies together. There were a lot of mates that had a lot of problems but we eventually got over it.

   b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh

7. 04/23/26:

   a. We met up at the Georgia Tech School of Mechanical Engineering to continue with the assembly. We had to change a lot of the dimensions so the parts mate together properly and aligned. We also changed the materials for each part so we could make it realistic. This took us quite a bit of time as there were a lot of mates but we finished at the end. We also made it clear that we should start the individual part drawings and the exploded views for each of our subassemblies.

   b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh

8. 04/28/26:

   a. We met up at the Georgia Tech School of Mechanical Engineering. This was to work on the presentation, putting all our part and assembly views into the presentations. We also added the exploded views of each member's subassemblies showing how the parts fit together. Additionally, we also worked on the full assembly renderings so we could see how our final design looks in the real world which was eventually added into the presentation.

   b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh

9. 04/30/26:

   a. This meeting took place at Clough Undergraduate Commons where we rehearsed our presentation and made sure it fit within the time limit. We also wanted to see if we all finished our part drawings for the report, and came up with how we are going to split the report. We made it clear that we wanted to finish everything 5 hrs before the deadline so we could do a final check.

b. Attendance: Austin Song, Adarsh Narayanan, Ella Camacho, Shyam Sivan, Harsith Rajesh