

Team Roles

Signal/Electrical: Anish

Leads circuit design and testing

Controls/Software: Bianca

- Leads software development and control planning

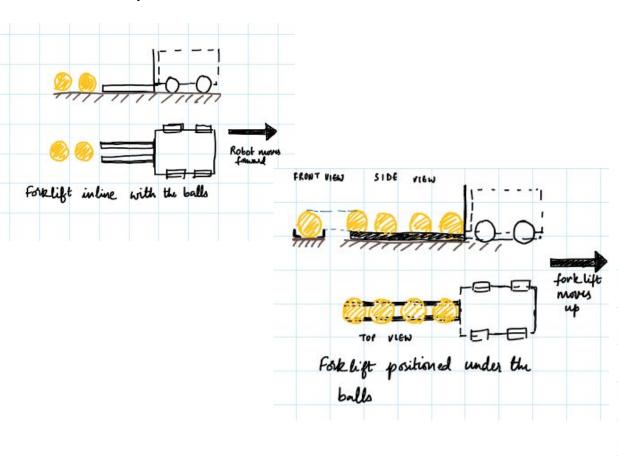
Mechanical: Bennett

- Leads mechanical design and fabrication

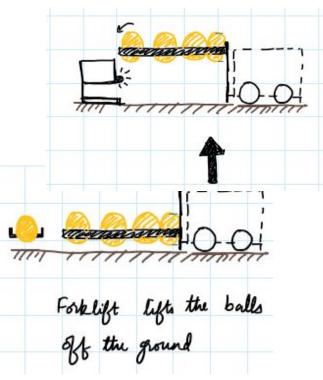
Integration: Sam

- Organizes integration between disciplines and assists all roles

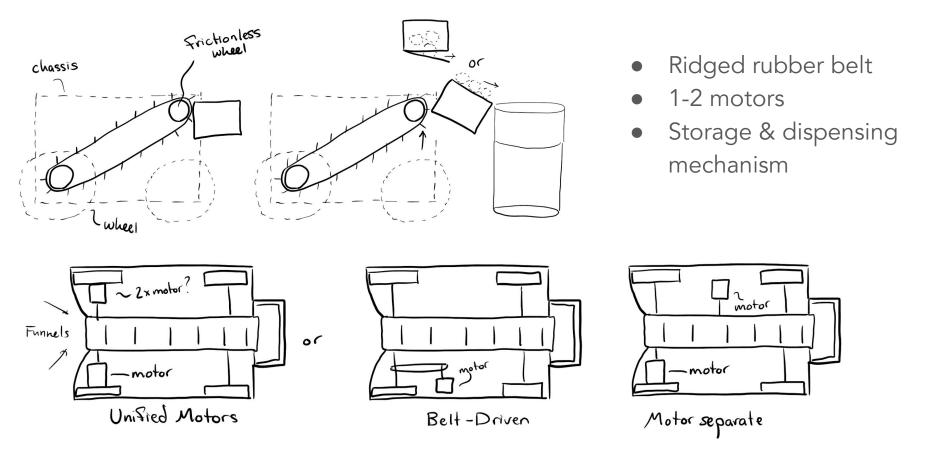
Concept #1: Forklift



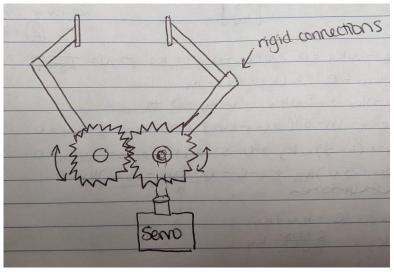
- Ability to handle both the sheep and the megasheep
- Ability to reach the top basket

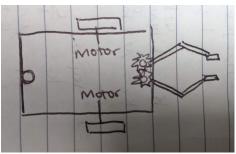


Concept #2: Conveyor

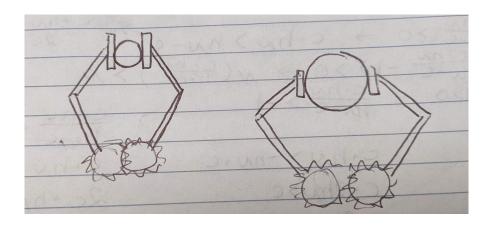


Concept #3: Claw





- Servo motor driving gears for both sides of claw
- 1-2 motors for wheels
- Ability to handle sheep and MegaSheep
- Limitation: can only drop to floor
 - Consider combining with Forklift concept



Needs

1.	Move	
2.	Pick up small balls	
3.	Hold ball	
4.	Drop off ball	
5.	Detect/Follow Lines	
6.	Detect Loading Zone	
7.	Components last 2 minutes	Minimum
8.	Timer to stop everything	
9.	Detect scoring zone	
10.	Beacon/IR Sensor	
11.	Go back to beginning	
12.	Get back on path	
13.	Find mega sheep	Feasibility
14.	Pick up mega ball	
15.	Route prediction	
16.	Shortcut path/avoid holes	
17.	Sense other robots	
18.	Aesthetically pleasing	

Gantt Chart

rask	ASSIGNED To	PROGRE \$\$	START	END	Days
Administrative					
Second Checkpoint	All	0%	Mon 2/14/22	Fri 2/18/22	4
Third Checkpoint	All	0%	Sat 2/19/22	Mon 2/28/22	9
Fourth Checkpoint	All	0%	Tue 3/01/22	Fri 3/04/22	3
Competition	All	0%	Sat 3/05/22	Sun 3/06/22	-1
Project Review	All	0%	Sat 3/05/22	Thu 3/10/22	5
Final Report	All	0%	Sat 3/05/22	Sun 3/13/22	8
Mechanical					
Design Drawings		0%	Mon 2/14/22	Fri 2/18/22	4
Drive Train/Move Prototype		0%	Mon 2/14/22	Sat 2/19/22	5
Sheep Pick-up/Hold Prototype	9	0%	Mon 2/14/22	Sat 2/19/22	5
Sheep Drop Prototype		0%	Sun 2/20/22	Fri 2/25/22	5
Controls/Software					
Finite State Diagram		0%	Mon 2/14/22	Fri 2/18/22	4
Detect/Follow Lines Controls		0%	Mon 2/14/22	Fri 2/25/22	11
Loading/Scoring Zone Detection	n	0%	Sun 2/20/22	Mon 2/28/22	8
Return to Path Logic		0%	Mon 2/28/22	Fri 3/04/22	4
Final Timer		0%	Mon 2/28/22	Fri 3/04/22	4
Electronics					
Motors/Drivers		0%	Mon 2/14/22	Sat 2/19/22	5
Line Detector Circuitry		0%	Sun 2/20/22	Mon 2/28/22	8
Beacon/IR Sensor		0%	Mon 2/28/22	Fri 3/04/22	4