

Sheep Xpress

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Team Roles

Signal/Electrical: Anish

- Leads circuit design and testing

Controls/Software: Bianca

- Leads software development and control planning

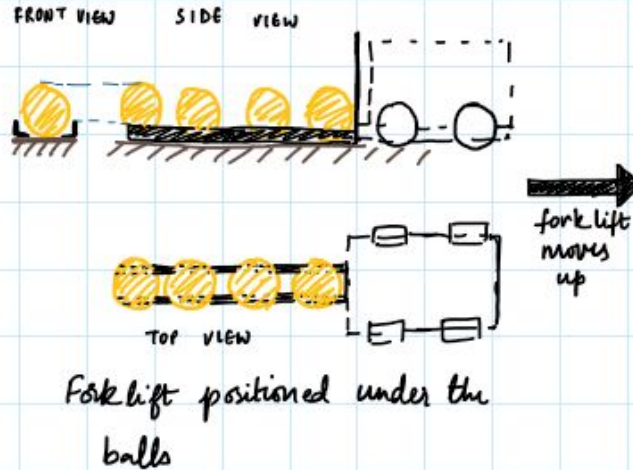
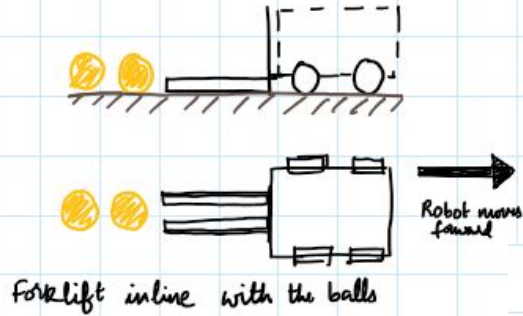
Mechanical: Bennett

- Leads mechanical design and fabrication

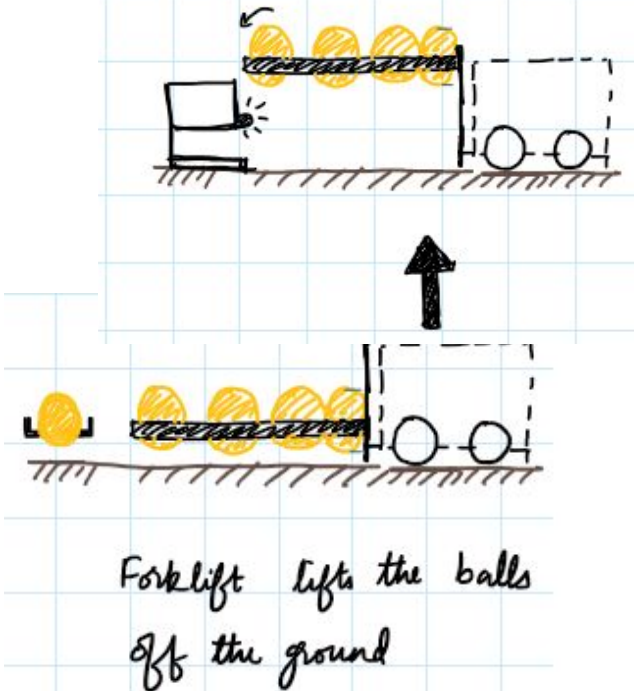
Integration: Sam

- Organizes integration between disciplines and assists all roles

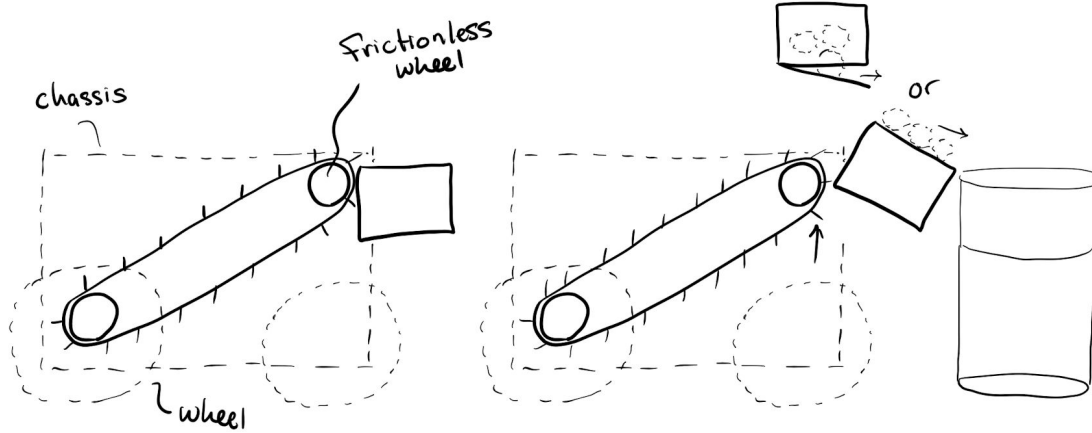
Concept #1: Forklift



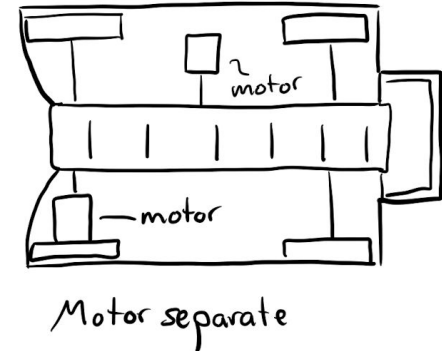
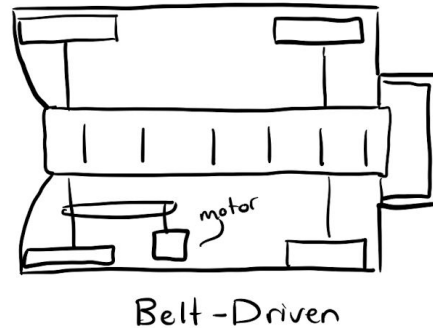
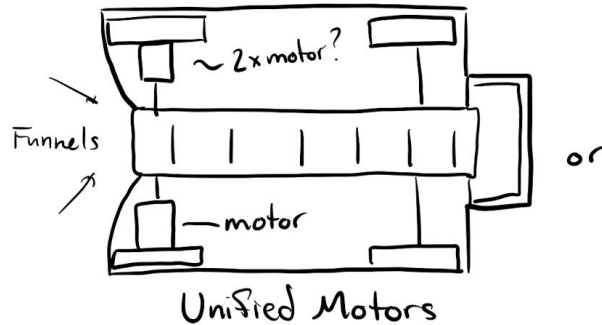
- Ability to handle both the sheep and the megasheep
- Ability to reach the top basket



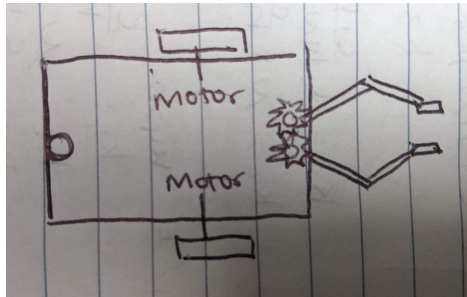
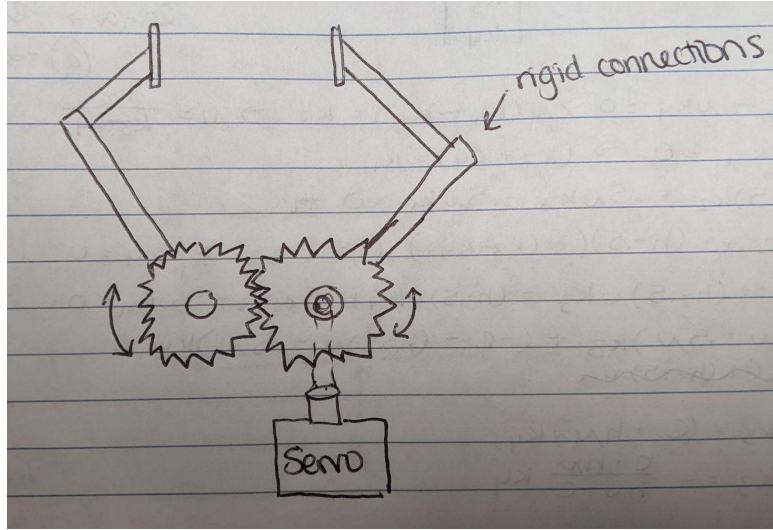
Concept #2: Conveyor



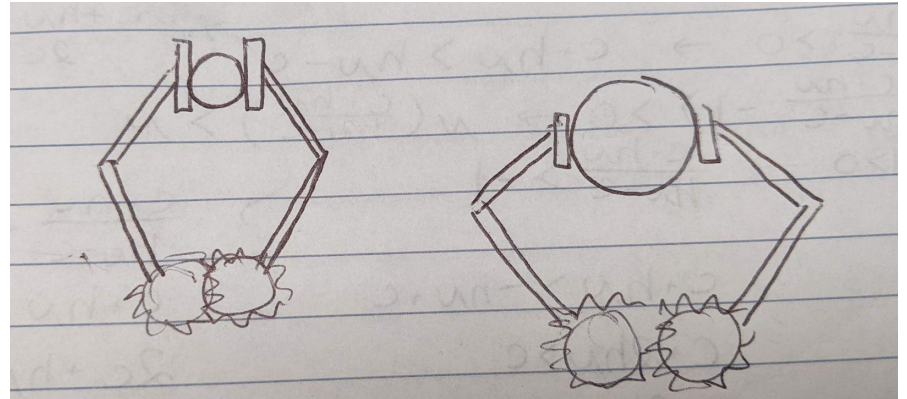
- Ridged rubber belt
- 1-2 motors
- Storage & dispensing mechanism



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

