



ENGG1050 - Engineering Design

Group A11 - WEEK 7 Presentation

1. Introduction



- Vision: To deliver a functioning RGM and showcase our collaborative and creative capabilities
- AGILE Project management; effective leadership and product design (positive values, curiosity, communication, decision making, experimentation and purpose)
- 'A11 Attitude!' Never Give Up, be responsible for all members, always give everyone a go
- (Perseverance, Responsibility and Trust)
- Result: SYNERGY!

2. Our Client and Timeline

THEME > Problem definition > Client:

Working University Student, struggling with finances. Not enough time to make affordable and nutritious meals. Can't hire a cook and doesn't have the space. Loses unnecessary funds on food outside.

SOLUTION: RGM designed for making food (in this case it's BREAKFAST)



Snapshot of our Timeline

		Week 1-6						
Start	Finish	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Feb 26th		Initiative		Project time line chart Decide on machine theme	Perform measurements for constructions	Prepare presentation detailing preliminary design	Complete SparkPlus assessment Finish the presentation	Present the preliminary design Complete the peer- and self-assessment

TIMELINE: Linear, following the AGILE principle of prioritizing tasks and working on one at a time.

Easy to read and follow

Efforts were better focused on one task at a time



3. Designing Process

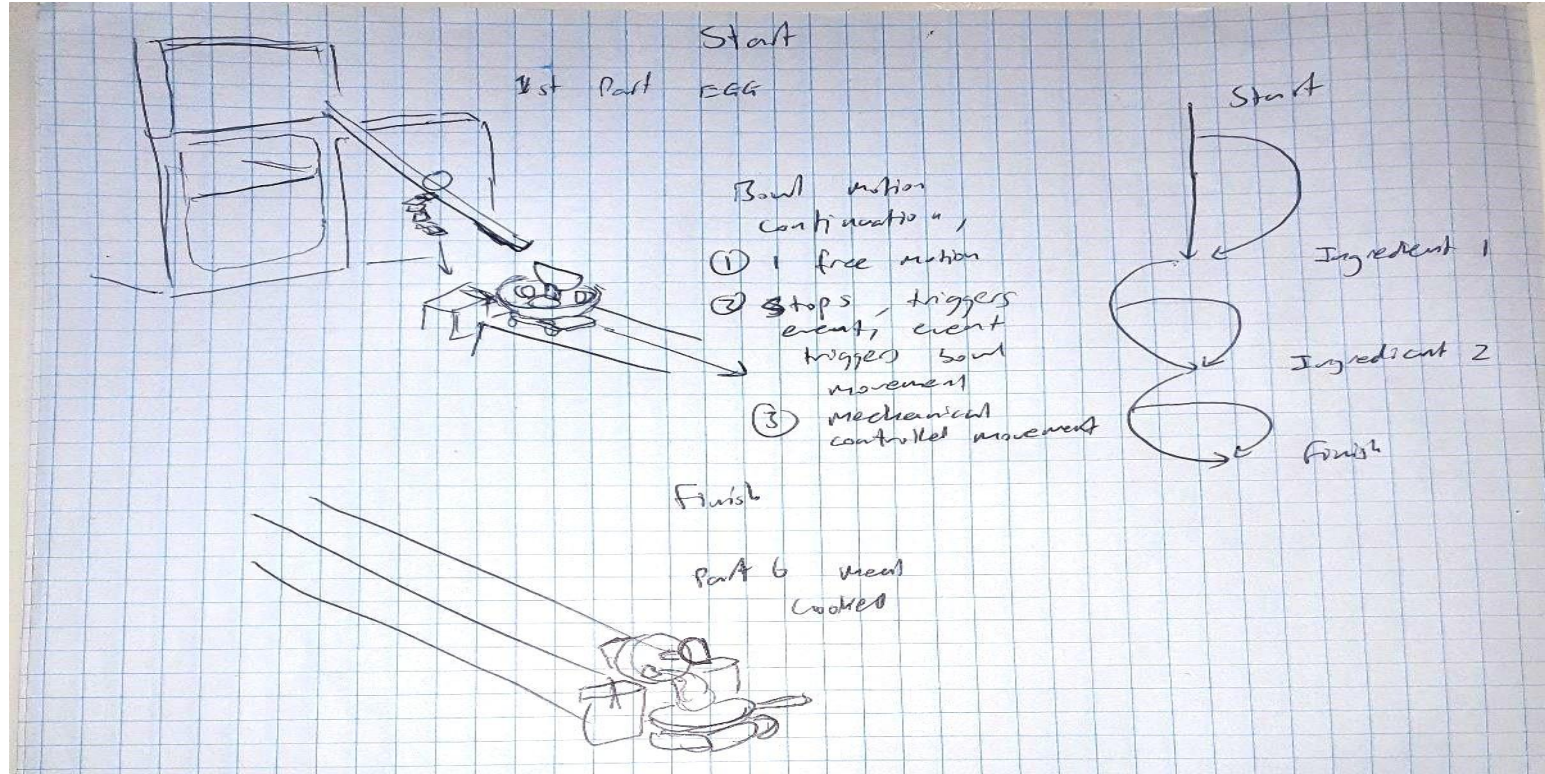
Tahsin Bin Sohail

3.1 Brainstorming

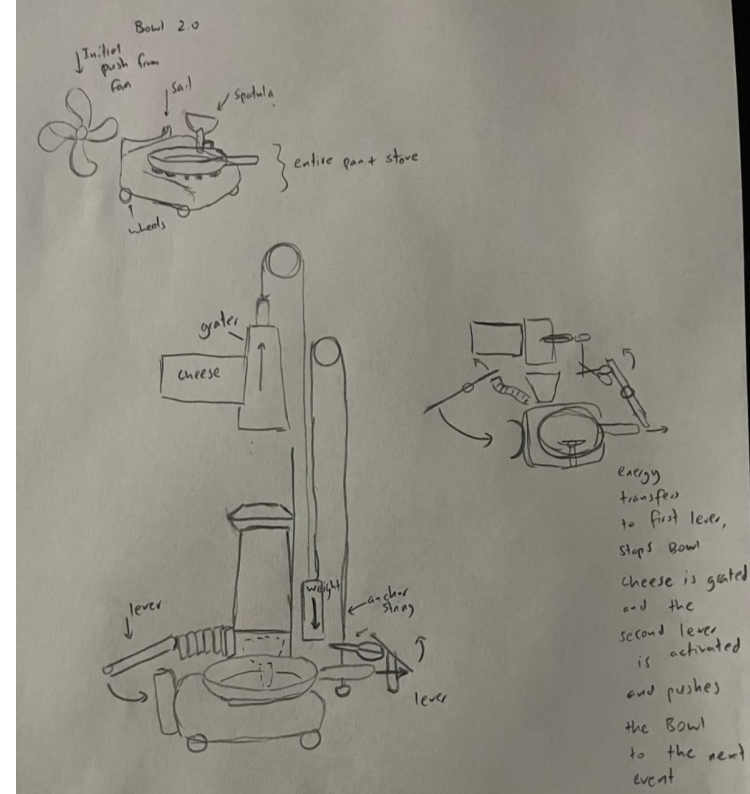
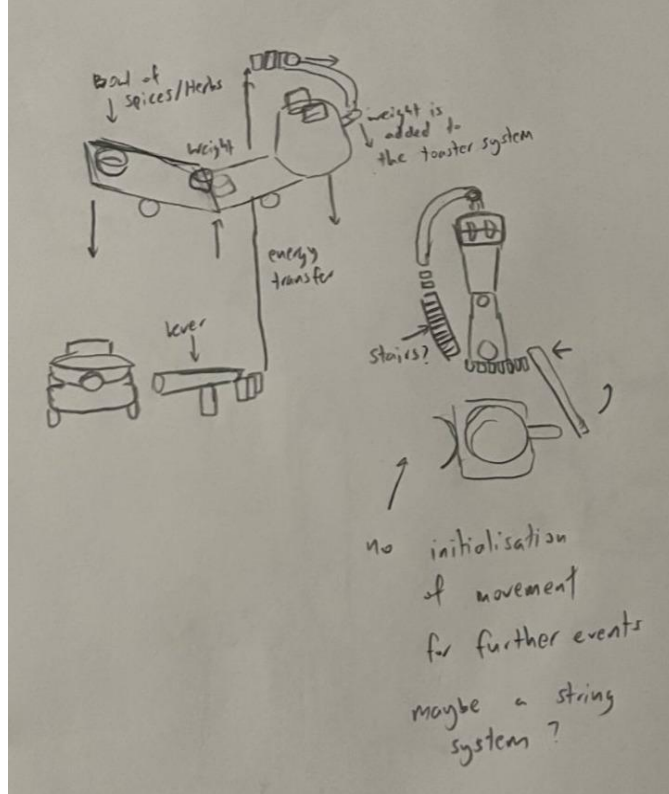


<p>Hot Wheels Tracks</p> <p>We can use these tracks to move small objects around with very easy setup</p>	<p>Marbles</p> <p>can be used as a trigger for an event, or as a cumulative item for a greater process</p>	<p>Levers</p> <p>Can be used to initiate and conclude actions</p>	<p>Springs</p> <p>can be used as timed triggers and as force dampeners and taking loads uniform direction</p>	<p>Fan</p> <p>Turned on, turns around blows something forward</p>	<p>Pulleys</p> <p>If we want to incorporate and change in height</p>
<p>Heat</p> <p>can burn things to trigger events, and induce chemical reactions</p>	<p>Gears</p> <p>Can operate complex motions in 3D space and can control timing</p>	<p>Scissors</p> <p>Cut a string tied to something</p>	<p>Counterweights</p> <p>Good for operating levers, triggering events, balancing objects and timing</p>	<p>Pressure (Hydraulics, Numatics)</p> <p>good for dampening forces, taking loads, exploding Omnidirectional</p>	

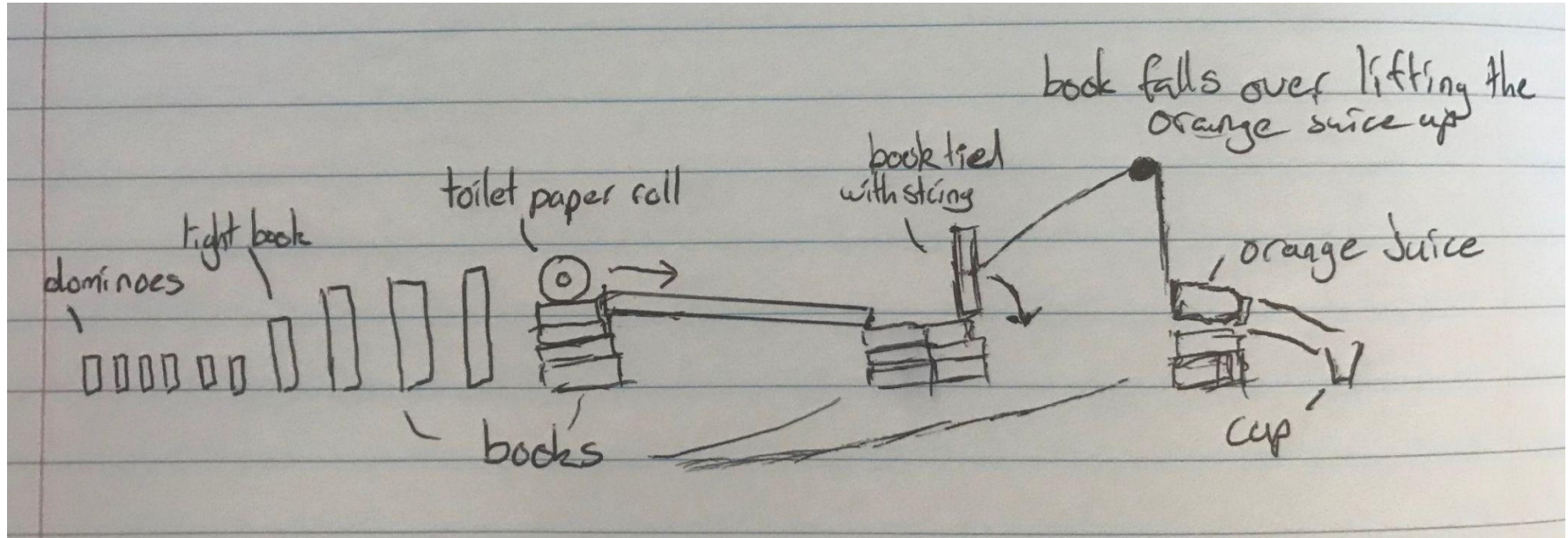
3.2 Conceptual Design



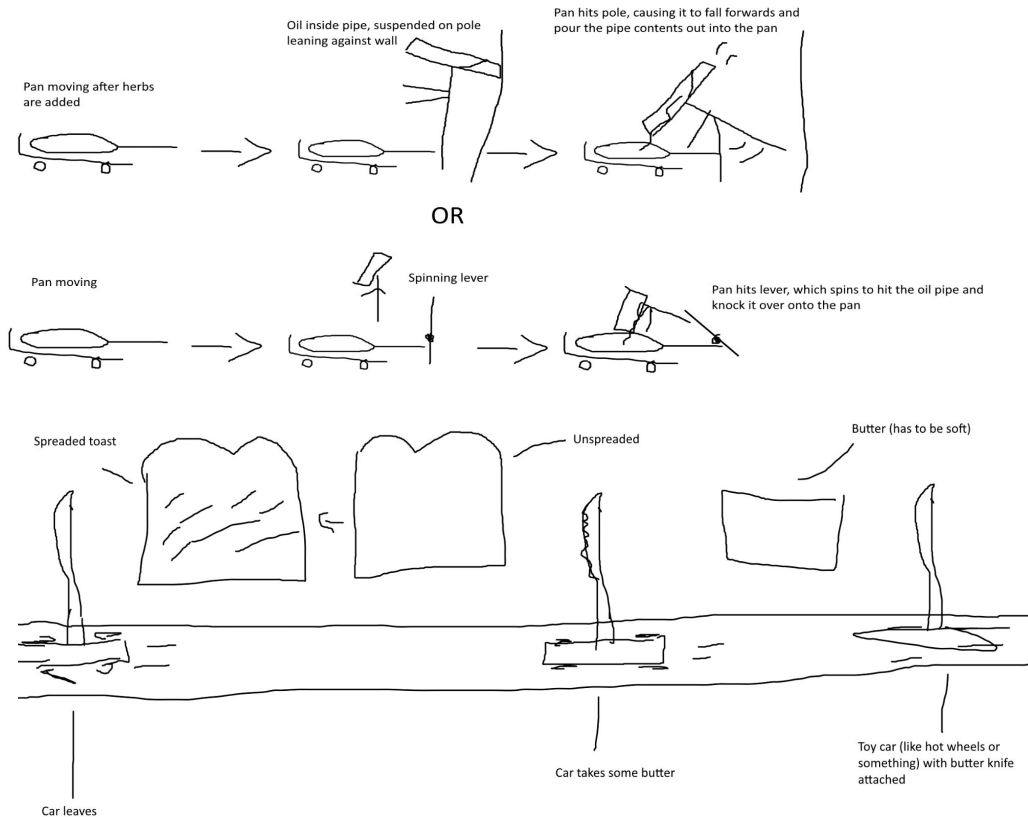
Preliminary Design



Preliminary Design

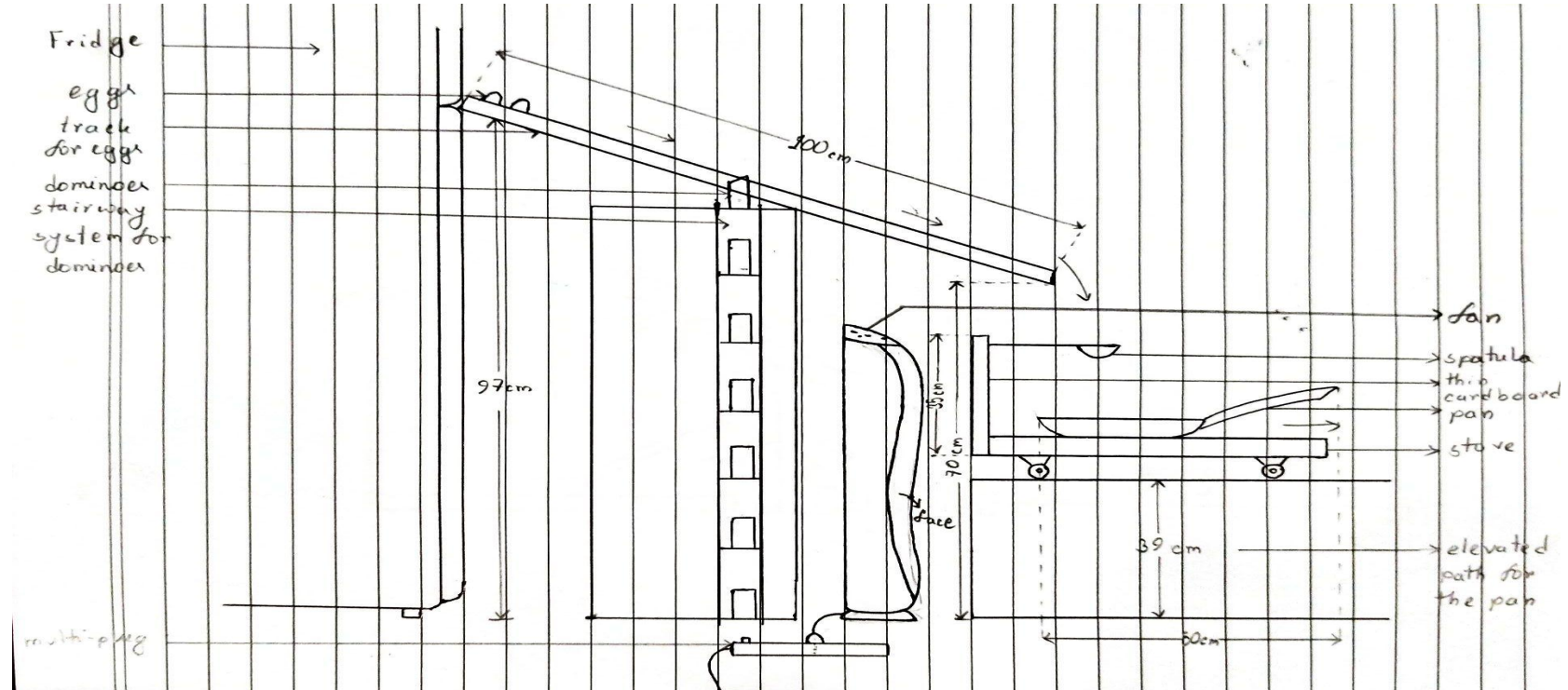


Preliminary Design

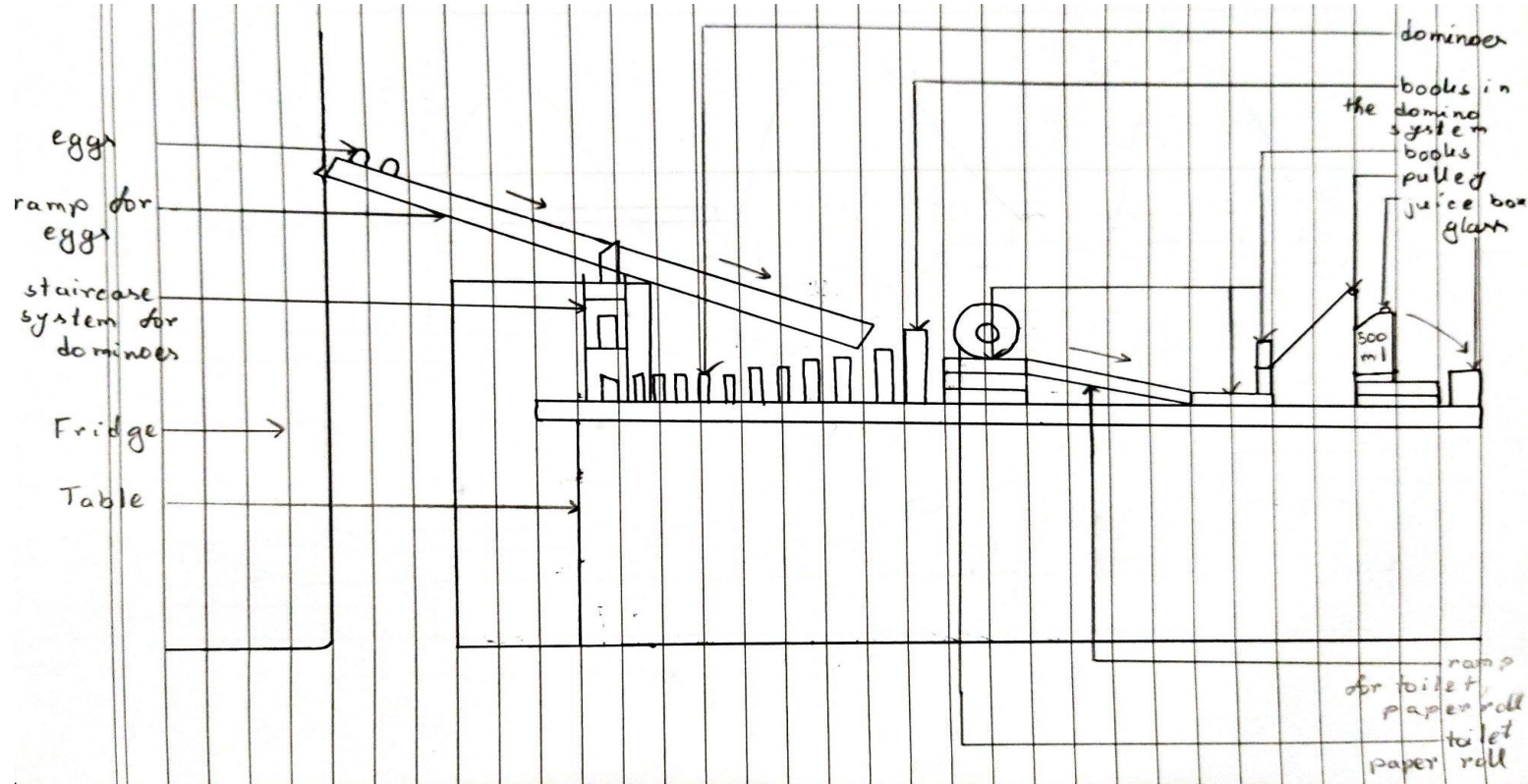


Depends on how the toast is gonna be moved once done...

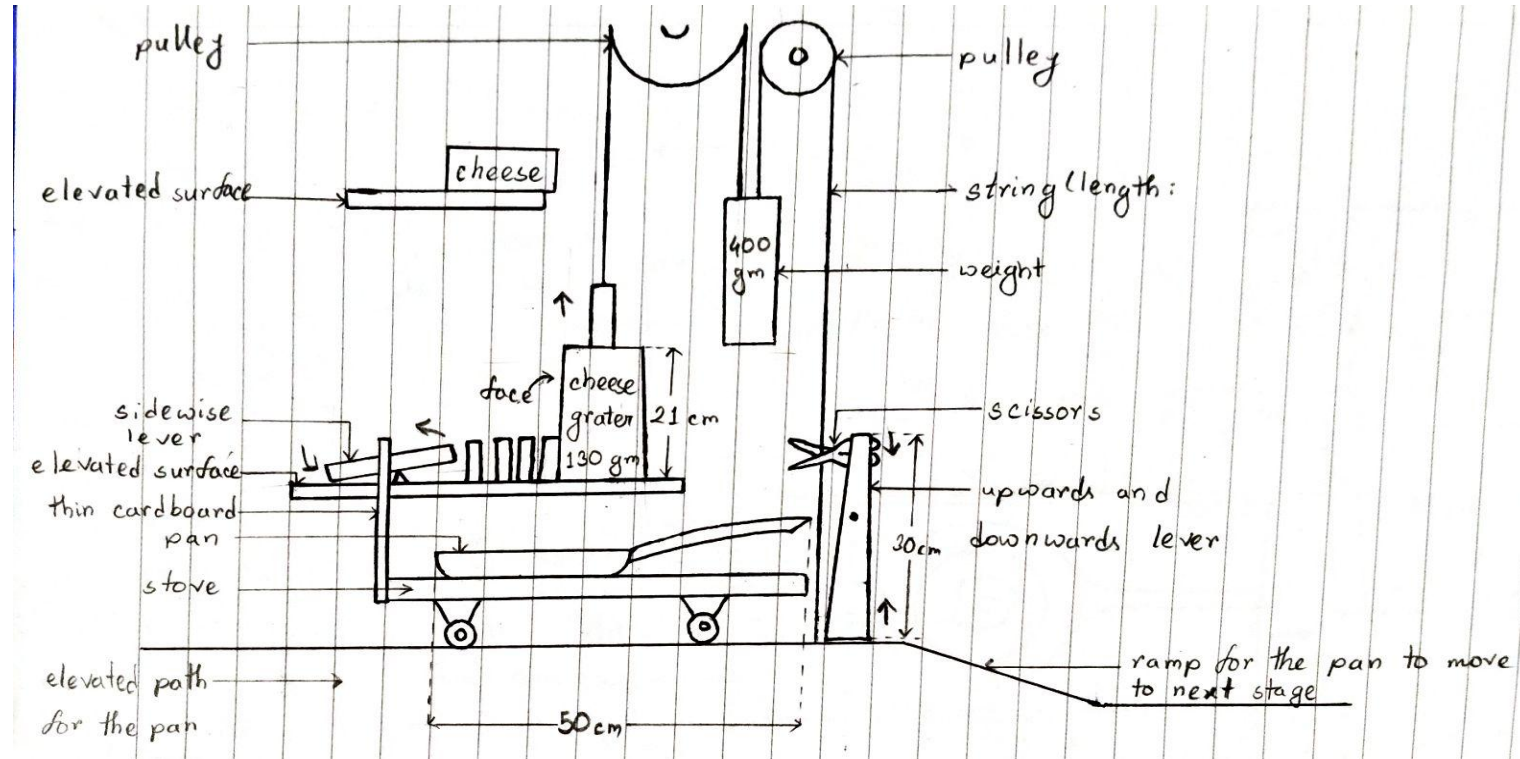
Detailed Design (Events 1-2)



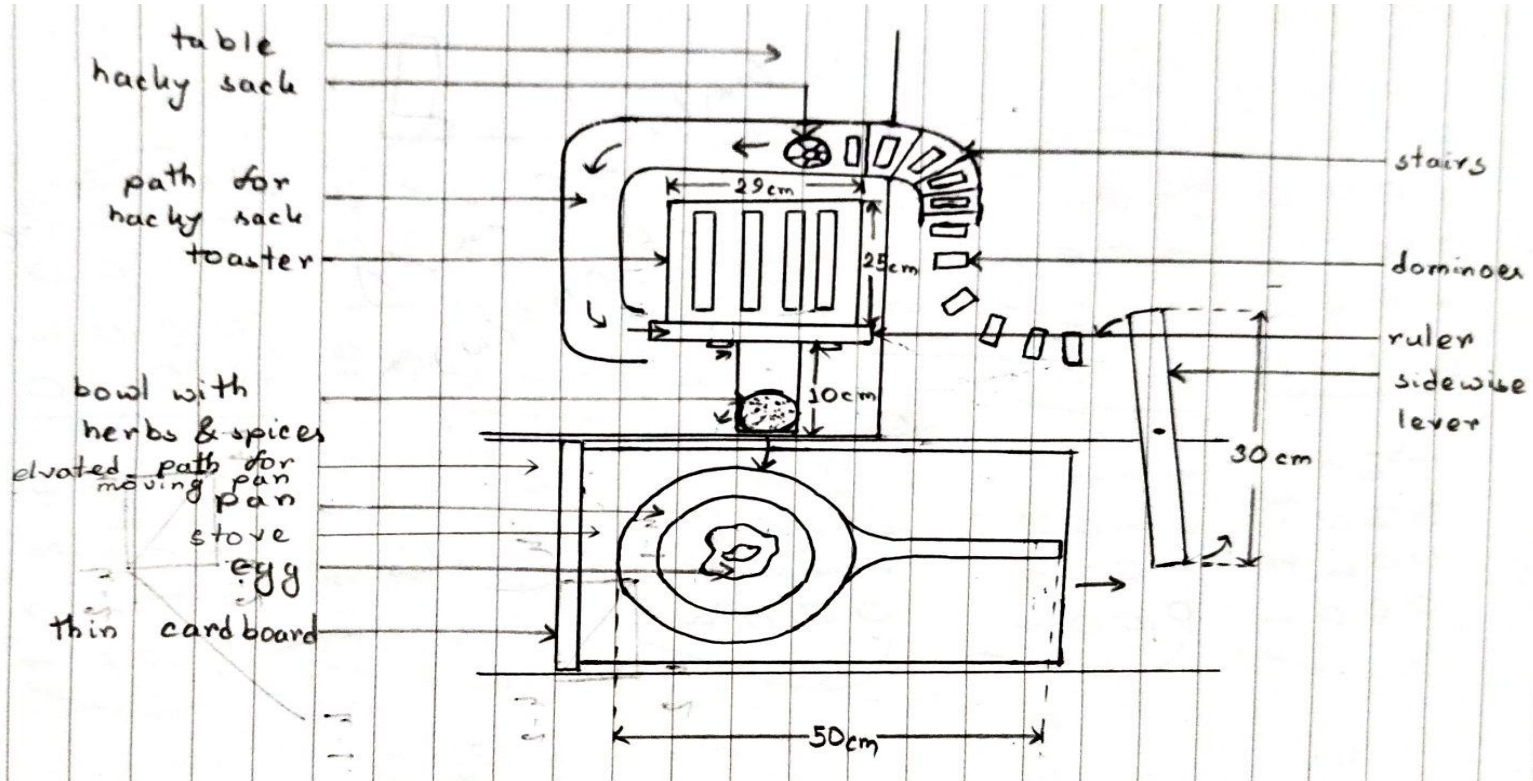
Detailed Design (Events 3-4)



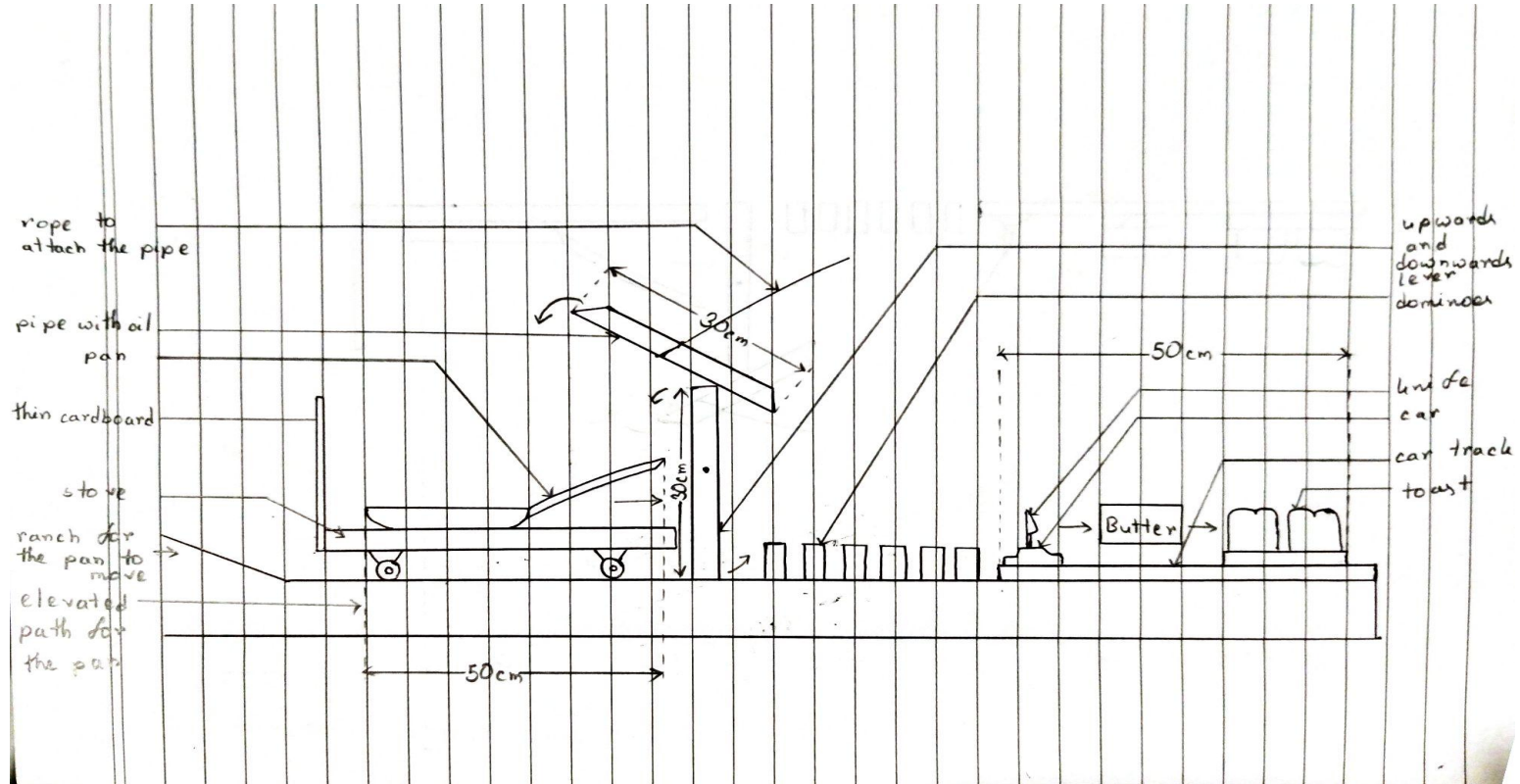
Detailed Design (Events 5-6)



Detailed Design (Events 7-8)



Detailed Design (Events 9-10)





Test, risk and Reflection

Lewis Reeves

Testing - Peter



Testing - Anthony





**Thank you for
Listening**