

Design Day Presentation

TeamTampons — GNG2101

Client Introduction + Project Overview

uOttawa Sustainability Office Period Project

- * Pilot project on providing free menstrual products in women's and gender-neutral bathrooms across uOttawa's campus
- * Launched in Fall 2021, currently 7 dispensers active
 - * LOTS of room for expansion
- * Some issues with current dispensers
 - * Durability / Capacity



Problem Statement:

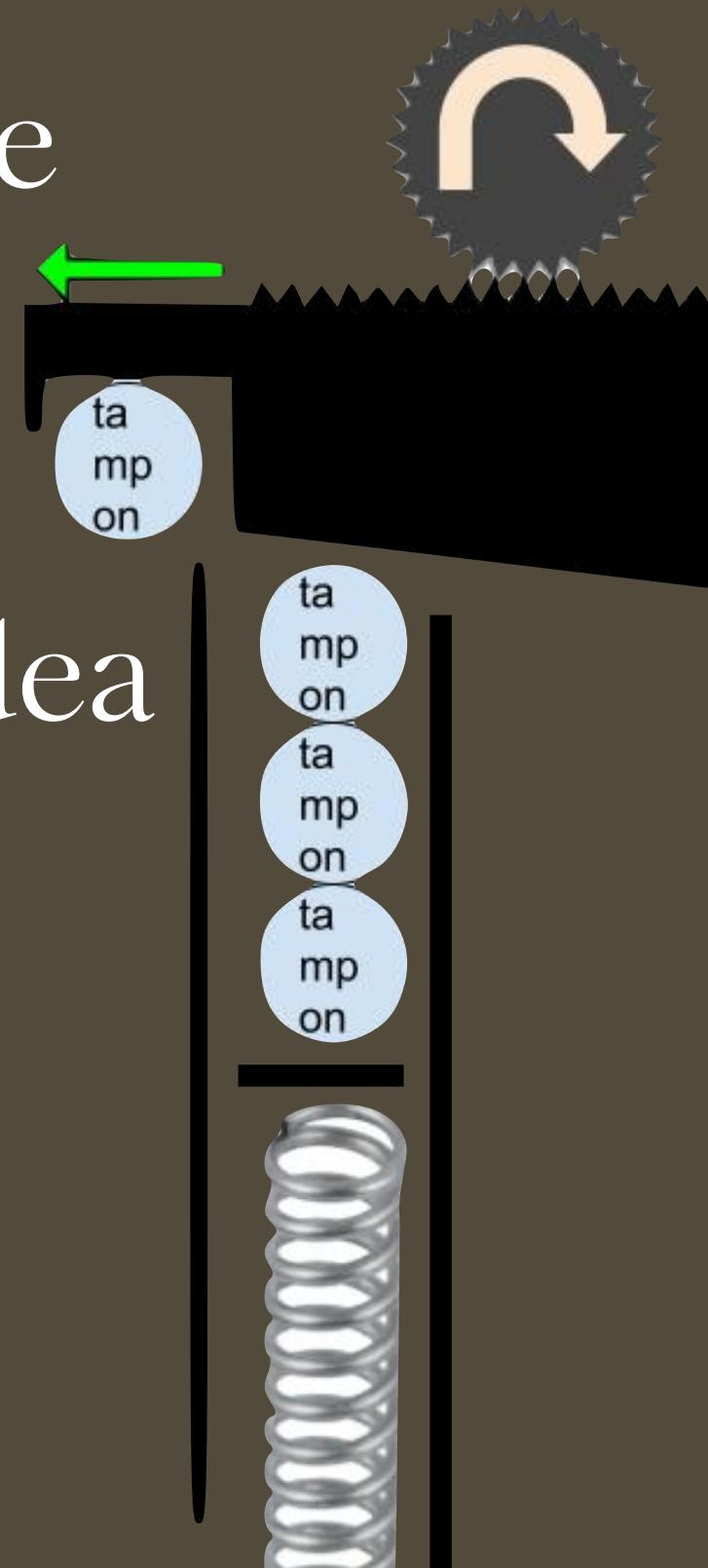
A need exists for the uOttawa Office of Campus Sustainability Period Project to implement improved menstrual product dispensers which are easy to restock, and dispense reliably.

Concepts

Modified based on Feedback

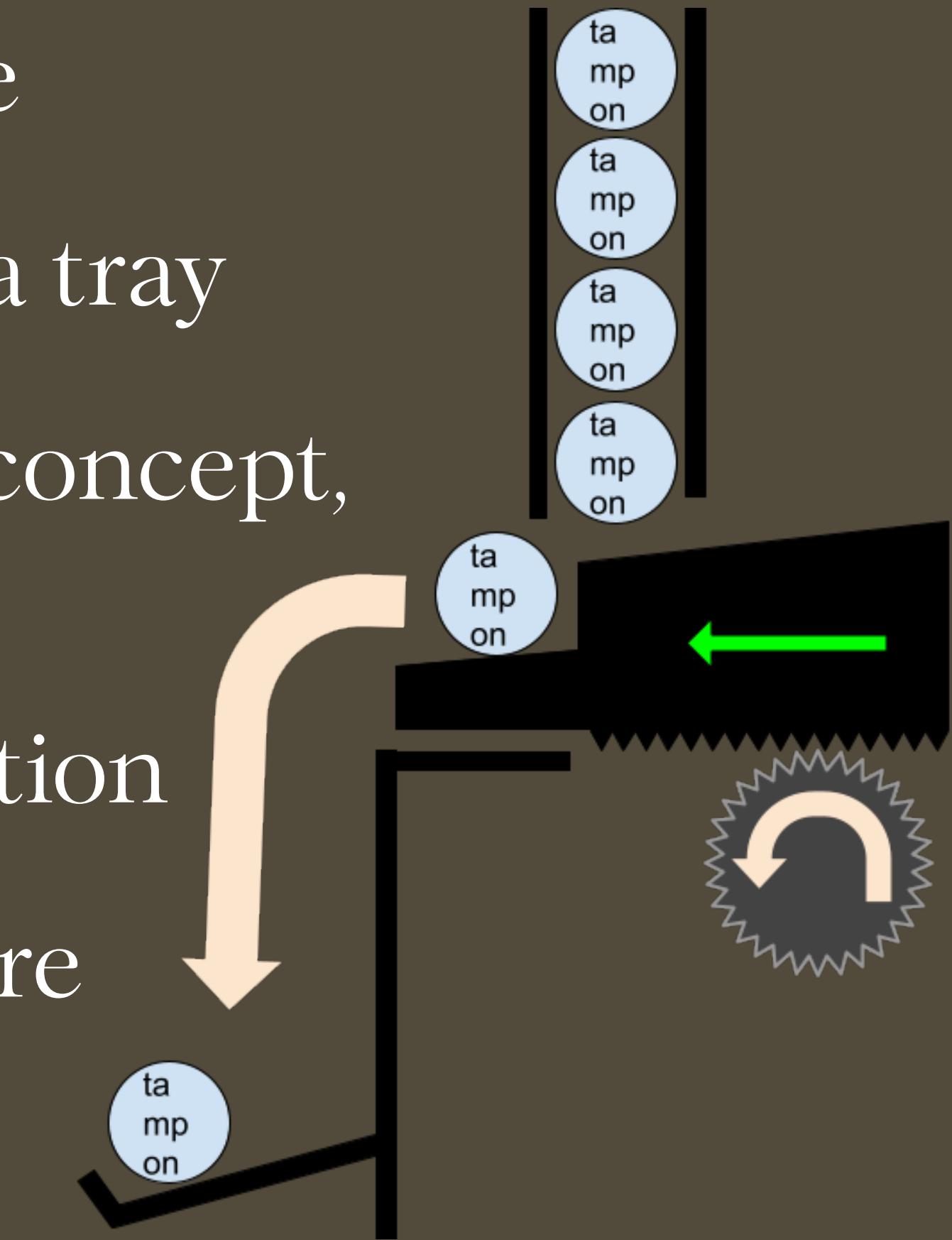
Concept 1

- * Loads from the bottom
- * Spring-loaded cartridge
- * Motor spins gear
- * Spring wasn't a good idea
(safety concern)



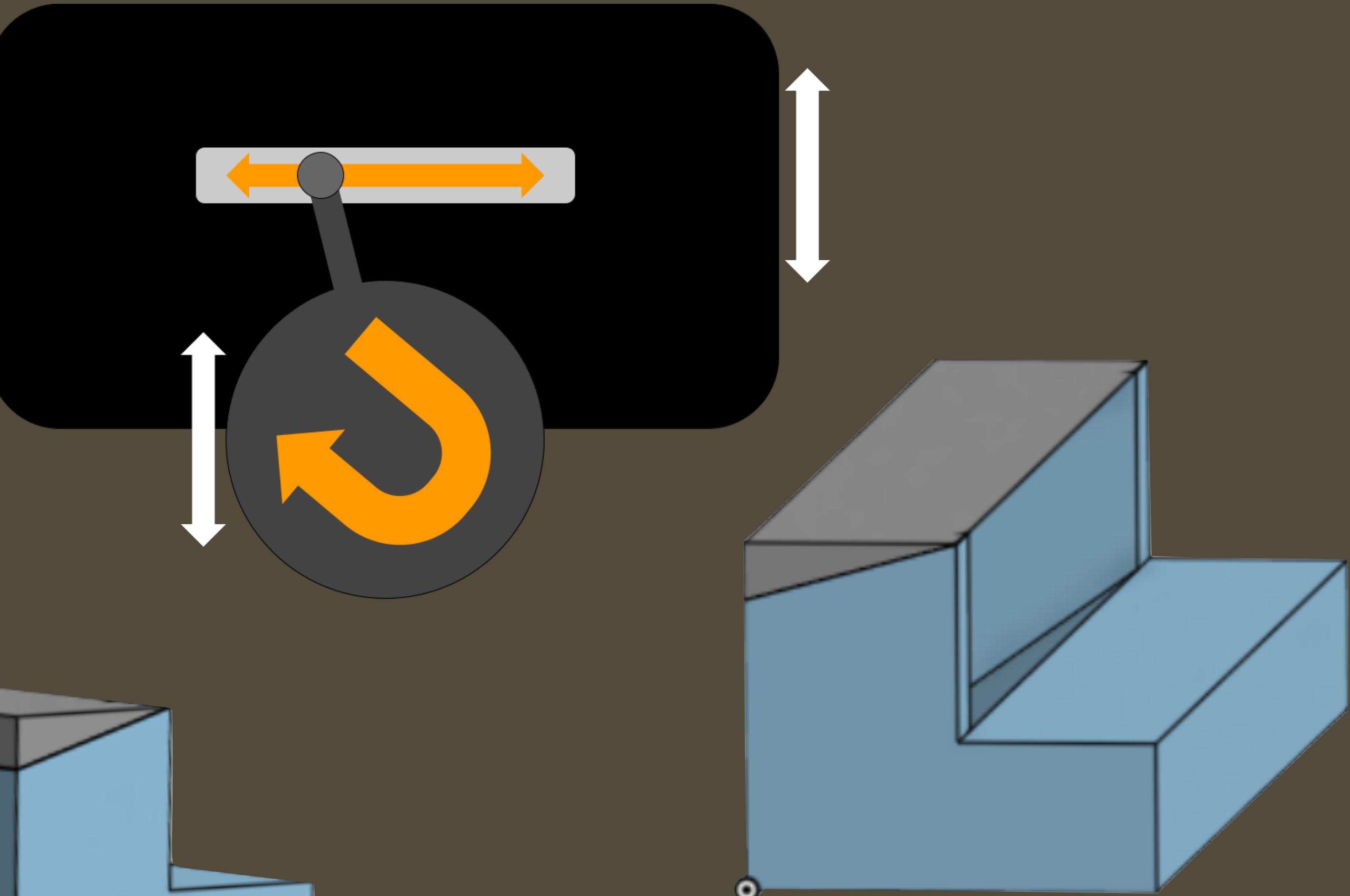
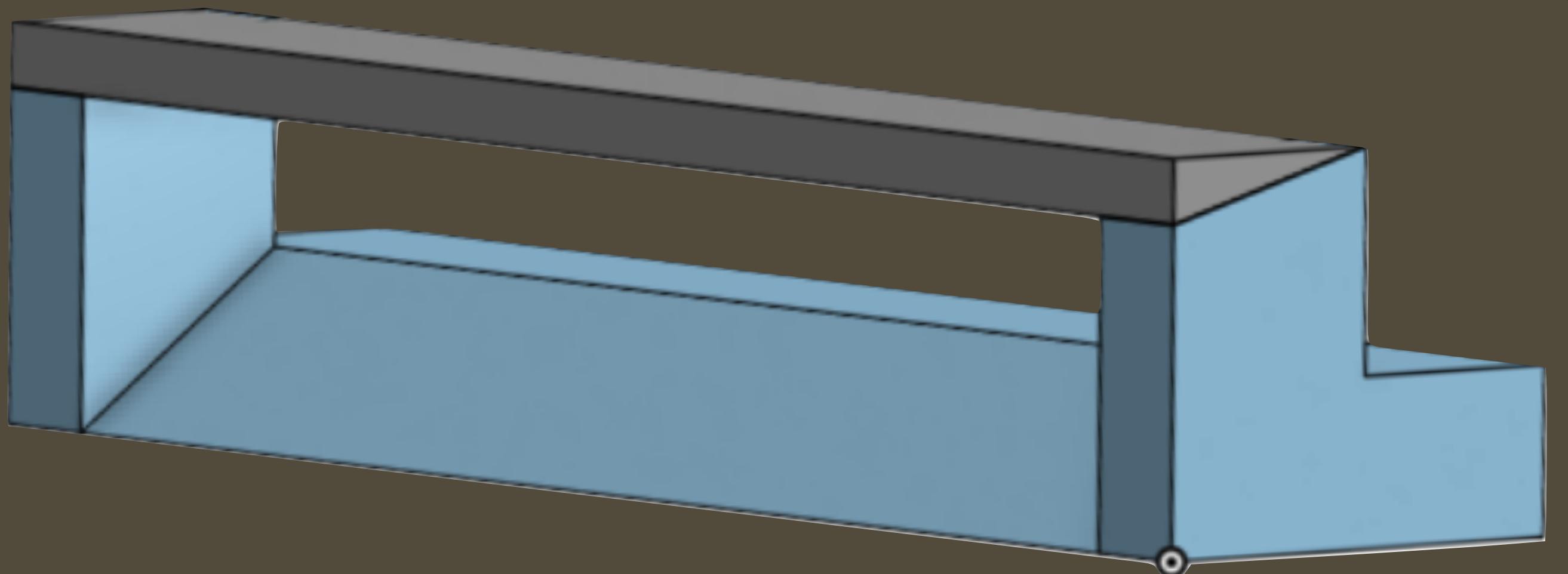
Concept 2

- * Loads from above
- * Product lands in a tray
- * Similar to initial concept, upside-down
- * Rests in “out”-position
- * No spring anymore



Final Design

- * Mechanism + Electronics
 - * Tray slides on rails
- * Product Storage
- * Unit Casing

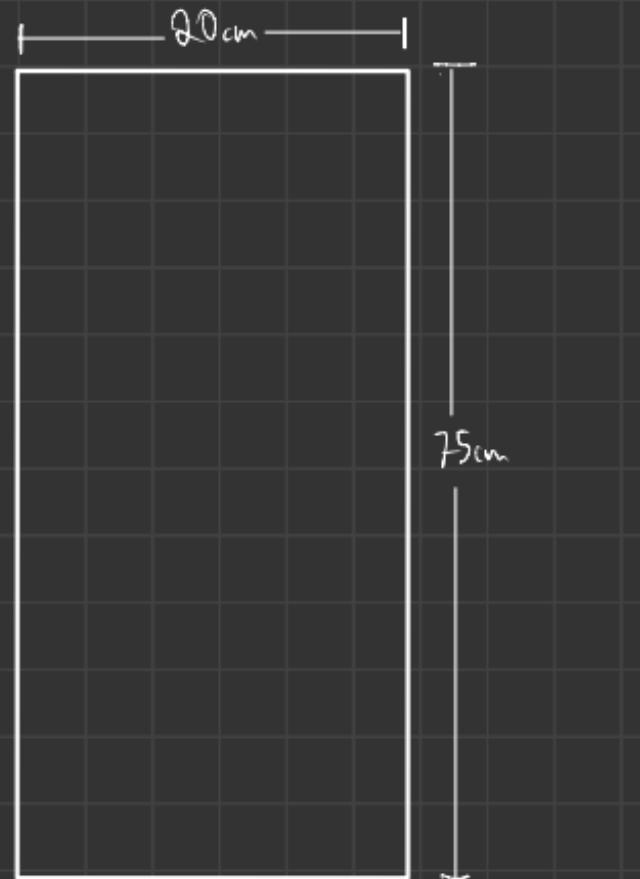
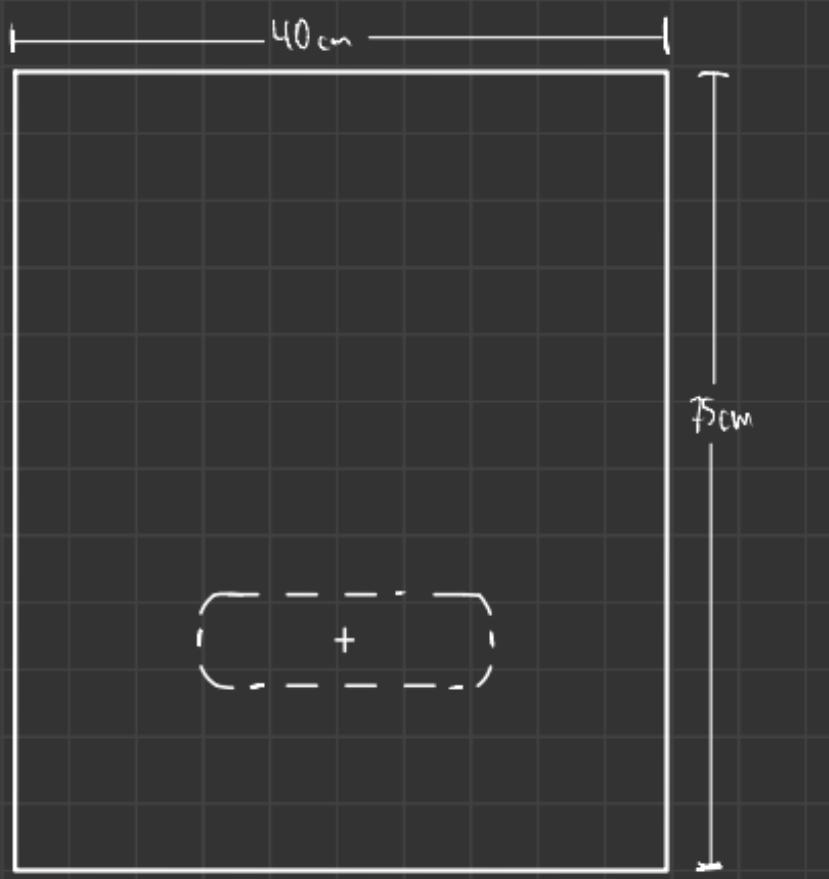
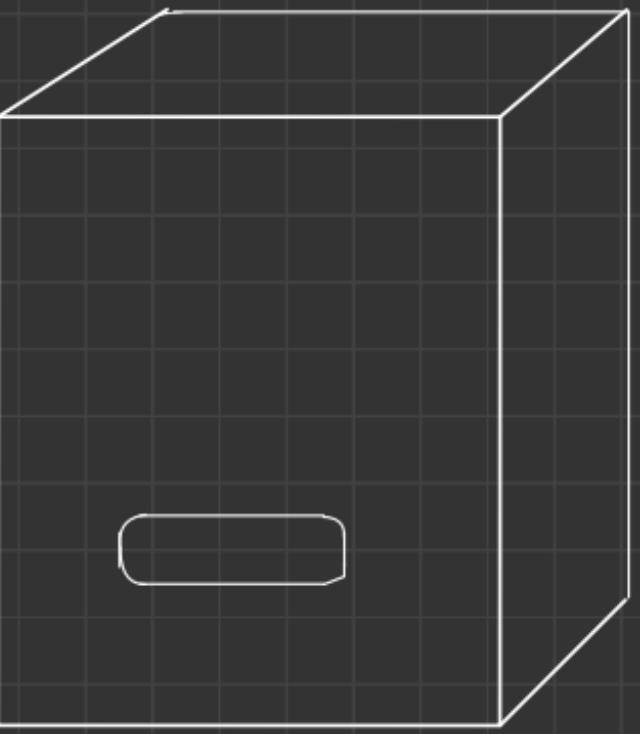
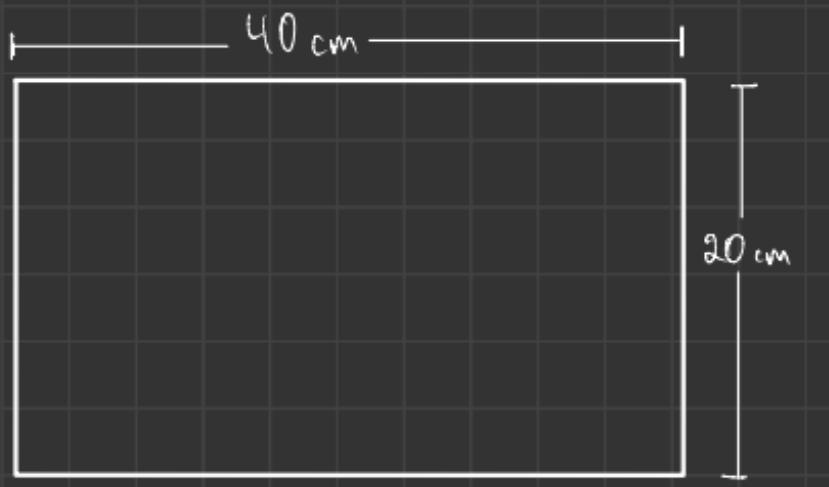


Key Specifications

Satisfied by Final Design

- * Meets ADA Guidelines
- * Delay to prevent overuse
- * Stores 50 products
- * Reliably dispenses one at a time
- * Light / Easy to install
(Aluminum body)

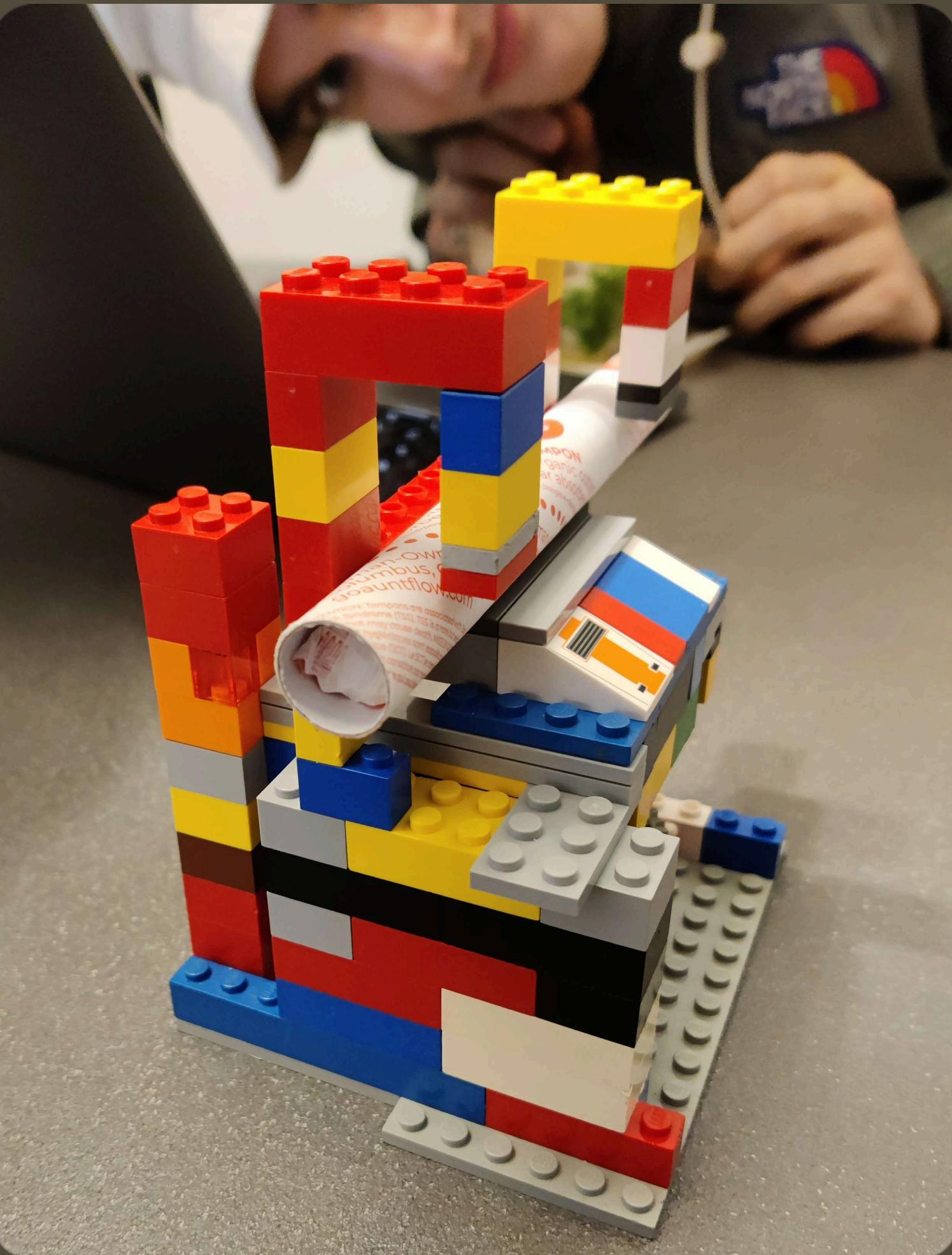
- This drawing shows a detailed view of the case that will house the tampon storage container and its dispensing mechanism. The slot at the front is where tampons will come out from.



Prototype 1

LEGO Mechanism

- * Mockup of mechanism
- * Hand-powered with LEGO
- * Purpose was to test functionality and performance of tray mechanism



Final Prototype

It's on the table

- * High-fidelity
- * Purpose
- * To communicate the design
- * To test a higher-fidelity iteration of the mechanism
- * Reflects 3 aspects of the final design