Functional requirements

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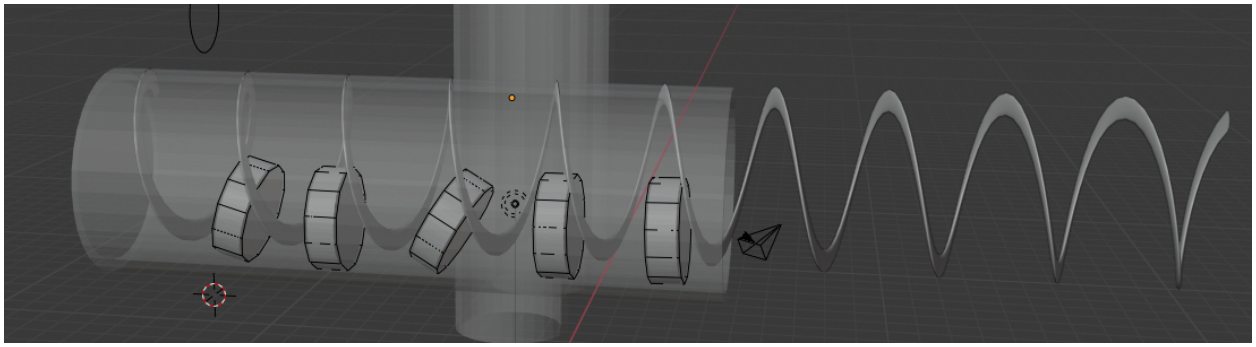
Functional requirements:

- The “robot” should be able to dispense a product using an actuator
- The robot should be powered by connection to normal outlet
- The robot should be connected to the internet and listens for payments and if approved dispense the product (snus)
- The robot should support the use of coins, therefore some sort of computer vision integration to identify coins
- The robot should be able to support dispensability of different types of product (snus)

Most important hardware:
Raspberry Pi is the most crucial hardware for our system. It is used for payment interception, coin detection, actuator and motor control.
Raspberry Pi camera for the coin detection part. Maybe dual purpose to see if the product actually have been dispensed.
Another crucial hardware is the actuator / motor (step motor) to dispense the products to the customers.
Linear rails (if not possible then a simple v slot will do).
Lastly, we need some material to create the container for the actual products, but we are not sure of what type just yet.

At the moment we are experimenting different designs in Blender to see what roads we can pursue. Below is a corkscrew dispensing design, which is much like a tradition vending machine.



We are also experimenting with a three-tube vertical linear design with a carriage that moves between them. Once a payment has been confirmed the product will drop by retracting a piece of thin acrylic or similar.