Midterm Presentation: Helpless Helper

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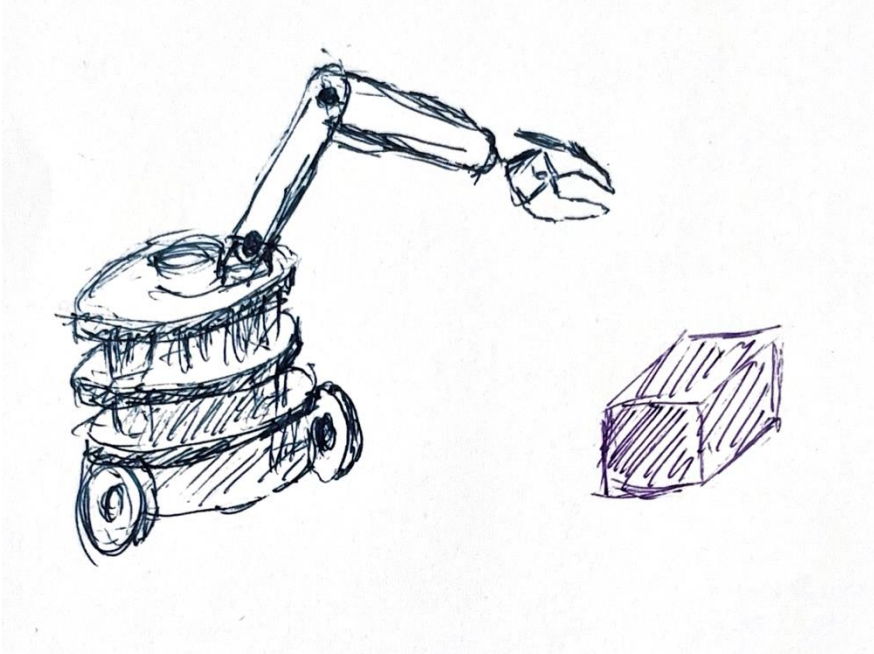
Our Project

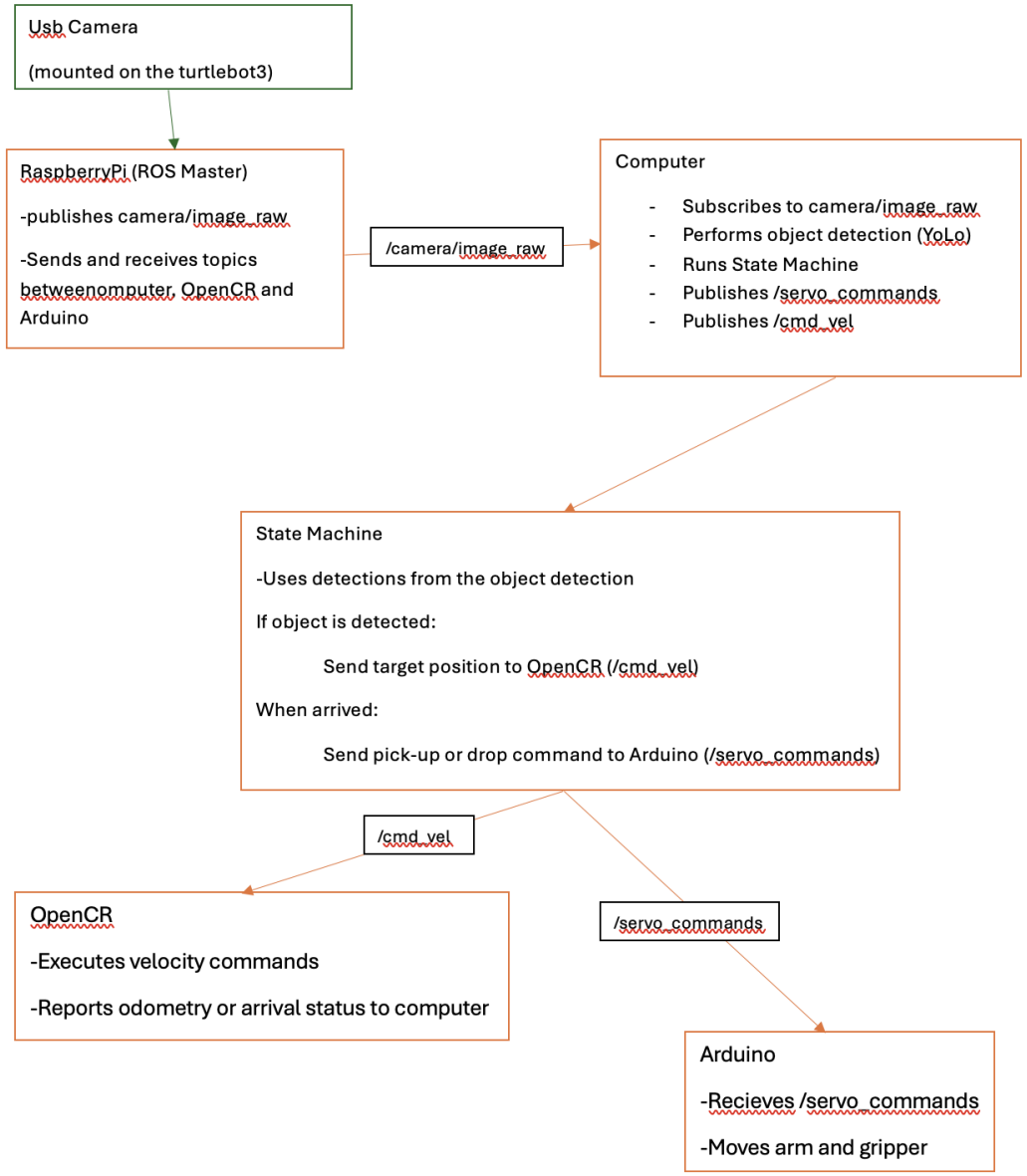
- **Motivation & Concept**
- The robot notices the actress and tries to help (by bringing medicine or random objects)
- But no matter how much it tries, it cannot truly “free” the person.
- The only person who can help is themselves.



System Components

Camera > Captures live feed of the environment
Object Detection > Identifies relevant objects such as medicine
TurtleBot3 > Navigates towards the object
Robotic Arm > Picks up the object and carries it

System Architecture Diagram



Challenges

- The scene can be too dark for our object detection system to perform well
  - (For now, we are working on a proof of concept)
- Synchronization between navigation and the arm
- Physical balance while picking objects

Progress

- Design of arm prototype
- Designs of medicine bottles
- Object detection functional

Medicine Bottles