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Project Title: Mobile Manipulator for Automating Delivery of Essentials in Hospitals

Objective:

In this project, the purpose is to build a mobile manipulator to collect food and medicines from the dispatch center and deliver them to the hospital cabins. The robot model will be demonstrated in a simulated hospital environment inside the CoppeliaSim software and controlled via a remote API on MATLAB.

My Contribution:

My task is to first write a script that interfaces MATLAB with the VREP simulation environment. The target is to use that script to control which room the robot will go to from the reference point and to make it return to the reference point after dispatching the delivery. My second task is to implement obstacle avoidance with the help of proximity sensors so when the robot sees a human or any other obstacle it can stop and wait for the obstacle to pass and avoid a collision.