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CS3813- Robotic

**Homework 1**

1. What intelligent behavior would be desirable for a robot to perform services in health care? Specify the health care services you have in mind?

The health care service that I have in mind is to have a robot which can assist people in physical therapy. In order for the robot to perform this task perfectly, the robot has to know how to do different types of exercises and different speed for each exercise to make it ideal for different people. This robot should also have the feature demonstrate and correct patients if they have performed the exercise wrong.

1. What sensors would be useful to facilitate human robot interaction?

For this particular robot, we will need a sensor to record the motion that the patient is currently doing in order to tell if the patient is actually doing it correctly. If the patient is doing the exercise incorrectly, the robot will demonstrate the exercise and ask if the patient understands. We will also need an external sensor to record the pulse and time for the patient to determine if the patient can continue to do the exercise.

1. What is your wish list if you are to build a wearable computing device to interact with the robot performing the health care services described in (1)?

I will need an external sensor, and a motion sensor for my robot to perform the health care service described above. The external sensor is to record the pulse and time rate that the patient has been doing for each exercise and determine if they can continue to do the exercise. The Motion sensor for the robot is to record the exercise that the patient is doing and determine if the patient is doing it correctly or not. If not, the robot will demonstrate the correct way for the exercise.