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| **Student: Xinran Li** | | | **Project: using gestures control a robot** | |
| **LEARNING OBJECTIVES**  (what do you want to achieve from doing the Project? [Programming / Sensing / Control])    Expand my knowledge of robotic related Python and C++ programming language  Demonstrate capability of understanding communications (topics/services in ROS.)  Learn how to use the Leap motion in ROS system | **RESOURCES & STRATEGIES**  (how are you going to achieve your objectives?)    Using the Leap motion controller  Simulation software of Fetch Mobile Manipulator (Gazebo) | **WHAT IS TO BE ASSESSED**  (Outline the deliverables – what are you going to produce?)  The objective of the project is using the Leap motion to get the palm gestures to control the car movement  Using the leap motion to detect the palm gestures(open palms, clench fists, move palms to the right or left)  .  Then write c++ code to get the data from the leap motion and control the robot movement depending on the different gestures  Finally, the robot will be moved by palm gestures | | **CRITERIA FOR ASSESSMENT** (Assign grades/marks for different levels of accomplishment )  Use the leap motion to detect hands  Use the leap motion to detect the gesture of hands  Determine which gestures control which robot movement  Control the robot by the gestures |
| **PEER TEACHING** (Outline what concept you will teach others and how your knowledge transfer will be measured) | |  | | |