

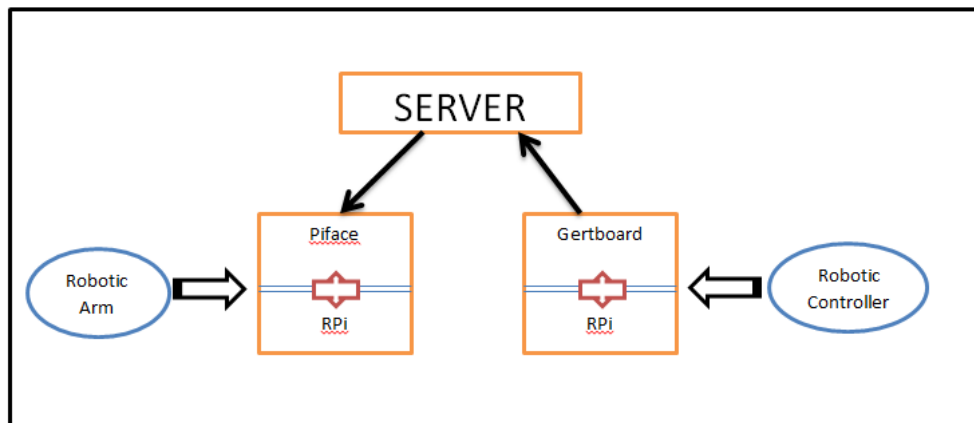
Term Project Proposal

Remote Control Robotic Arm over Internet



The idea of this project will be adding a robotic arm to a network where it will be controlled by other nodes. The robotic arm has five motors providing five degrees of freedom and a separate LED light. Currently the robotic arm is controlled by a controller which is directly connected to the robotic arm.

To achieve the goal of this project, it will require to replace the controller by a Raspberry Pi with PiFace which receives signal from the server. The controller is then connected with a different Raspberry Pi with Gertboard and sends signals to the server to control the robotic arm remotely. Since the robotic arm is connected remotely, the controller is not only the way to control the robotic arm. It can be controlled by software buttons shown on the server GUI. The server GUI will provide these control buttons and display logs of the movements that have been done. Also, if there is time, it may be possible to record movements in an XML file and have them play back in an automated fashion.



Project Overview Diagram