ROBOTIC ARM CONTROL THROUGH INTERNET OR LAN FOR PATIENT SURGERY

ABSTRACT

To design a robotic arm controlled through the internet/LAN used for patient operation and interface the robotic arm and the other components like LCD, DC motor and RF video camera with the microcontroller. Here we propose to build a robotic arm controlled by natural human arm movements whose data is acquired through the use of accelerometers. For proper control mechanism and to reduce the amount of noise coming in from the sensors, proper averaging algorithm is used for smoothening the output of the accelerometer. The idea behind the development of the robotic mechanism was the hospital visit where the problem faced was the absence of the surgeon. As we all know that surgery is a common thing these days’ even a small tumor removal needs surgery. Suppose that the surgeon is in a foreign country to ask him to come over for the surgery is impractical in cases of emergency. These problems are tackled by our Robotic arm which is fully automated. Microcontroller provides a helping hand in making a system automatic. Microcontroller AT89s52 was chosen for a simple reason that it is advanced and more flexible version of microcontroller 8051.