

Report on

‘Robot Hand’

By

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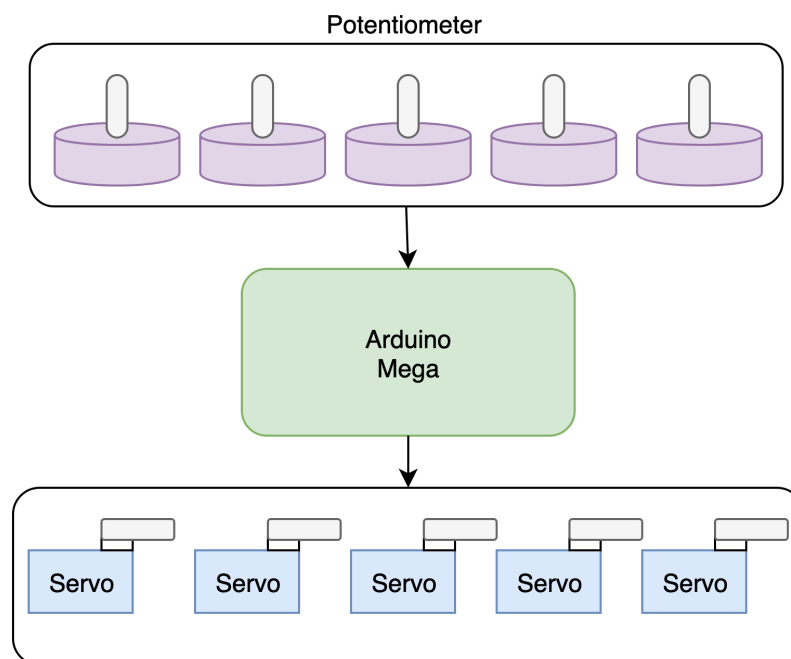
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Objective:

To construct a Robot hand model.

Description:

This project is a basic implementation of a humanoid robotic hand with five fingers and all fingers are controlled using servo motors. These servo motors are for now controlled using potentiometer which can be made to work automatically in the future.

Block Diagram:**System Requirement Specification****Hardware Requirement:**

- Servo x 5
- Potentiometer 10K x 5
- Arduino Mega

- Jumper cable

Software Requirement:

- Arduino IDE
 - Library: 1. Servo.h

Working Principle:

There are five potentiometers which are connected to Arduino. So when we turn a potentiometer, the Arduino converts the varying resistance and feed it to a particular servo to which that potentiometer maps to. In turn, the servo which is attached to a finger moves the finger forward or backward.

Circuit Connections:

- Connection of Arduino to Potentiometer:
 - 5v - Vcc
 - A1 - pot1
 - A2 - pot2
 - A3 - pot3
 - A4 - pot4
 - A5 - pot5
 - Gnd - Gnd
- Connection of Arduino to Servo:
 - 5v - Vcc
 - 5 - Servo1
 - 6 - Servo2
 - 7 - Servo3
 - 8 - Servo4
 - 4 - Servo5
 - Gnd - Gnd

Result:

The result of the project Robot hand is verified and it satisfied all my requirements without any exceptions.

