

Robotic Arm

Controlled Through Image Processing

Implementation:

- Week 1: Trying to figure out hand gesture recognition using image processing. Simultaneously, we'll start designing the mechanical portion of arm.
- Week 2: Once the image processing part is figured out, we'll start working on how to give inputs to the arm using our hand gesture (i.e. Help the program identify and distinguish different gesture).
- Week 3: Main focus on mechanical aspect of project. Try to assemble the mechanical portion of arm by the end of week.
- Week 4: Try to make the arm function by interfacing the program (the one which uses Image Processing) and mechanical aspect (preferably by using PIC microcontroller)
- Week 5: If time permits, add more features, improve upon gesture recognition, Make the design more robust and make a finished product.

Materials Required:

1. 10 servo motors.
2. PIC microcontroller (AURUM board)
3. ADXL 335(possibly)
4. acrylic

What do we expect to learn by the end of project???

- Image Processing (or a portion of it)
- More experience in working with microcontrollers
- Basics of Robotics