

## **OBJECTIVE:**

One of the most innovative and interesting part of modern technology that is gaining popularity day by day and seeing various kinds of usage is robotics. Once works considered as dangerous and near impossible have turned into easily doable thanks to robotics. Not only that, use of robots has now started to enter our day to day to life. We can see such examples in developed countries like Japan but sadly here in our country this technology has yet to see such life changing progress. So our goal here is to use that technology to make something simple yet effective which will have a lot of scopes to improve in future. Thus we decided to build a robotic hand with gesture respond.

## **FEATURES:**

As the name indicates, the core feature will be a structure of a robotic arm which will respond to or mimic the hand gesture of a human being.

## **FUTURE WORK:**

As our current project is only a part of a much bigger one, we will try to add many useful features in future like correctly copying and applying the finger movements also which will enable the robotic hand to grab something, use a tool, etc.

## **TIMELINE:**

### 1<sup>st</sup> Part:

1. Buying required supplies and instruments.
2. Using kinect sensor via PC, testing its work flow by using gestures.
3. Collecting and analyzing the data for the future part.

### 2<sup>nd</sup> Part:

1. Building up a basic model for the robotic hand.
2. Connecting a Raspberry Pi to the model and PC and figuring out the coordination.

### Final Part:

- 1.Adding the kinect sensor to the developed model to complete the setup.
- 2.Developing the total system so that the model receives the required data through the sensor and performs the intended actions.

### **CONCLUSION:**

The world is moving so fast to grasp the perfect future and robotics is most likely one of the most important means to get to that. Everyone is searching for the ultimate way to get most profit by putting less time and less physical work. We are already experiencing the blessing of modern technology which has made everything pretty neat and easy but only to a certain extent. If we can implement this kind of gesture following robots, our works will surely become more fluid, effective, less dangerous.