BEST: Journal of Recent Trends in General Engineering & Research (BEST: JRTGER)
Vol. 1, Issue 1, Dec 2016, 13-20

COMPACT HUMAN ARM FOR MEDICAL AND INDUSTRIAL USE

SHAILENDRA SINGH CHAUHAN, SHUBHAM. K. AJITSARIA, GAURAV KUMAR & MD. DANISH KHAN

Department of Mechanical Engineering, Sikkim Manipal Institute of Technology Majhitar, Sikkim, India

ABSTRACT

Human arm is a very crucial organ which allows us to perform important day to day activities like lifting any object, dressing up, eating, clenching, gripping something to name a few of them.

Since it is so important for us that this organ functions well, so if in an accident or due to any other reason the arm gets damaged, life becomes very difficult.

This artificial human arm will enable such physically challenged people to perform all these day to day activities. Not only this, this can also be used as an extra attachment in various robotic machines to enhance their efficiency.

We have used chains, springs, wood and servo motors for its construction and it can perform the tasks like clinching of fist and curling of fingers very efficiently.

Another positive point is that the size has been kept really compact as compared to the currently available humanoid arm. This is well equipped to perform human interactive tasks.

KEYWORDS: Servo Motor, Arduino Uno, Springs, Metallic Chain Pieces, Transmitter Receiver, Bread Boar