

# MINI PROJECT REPORT

## THE ROBOTIC ARM

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# **MINI PROJECT**

## **PROJECT GOAL**

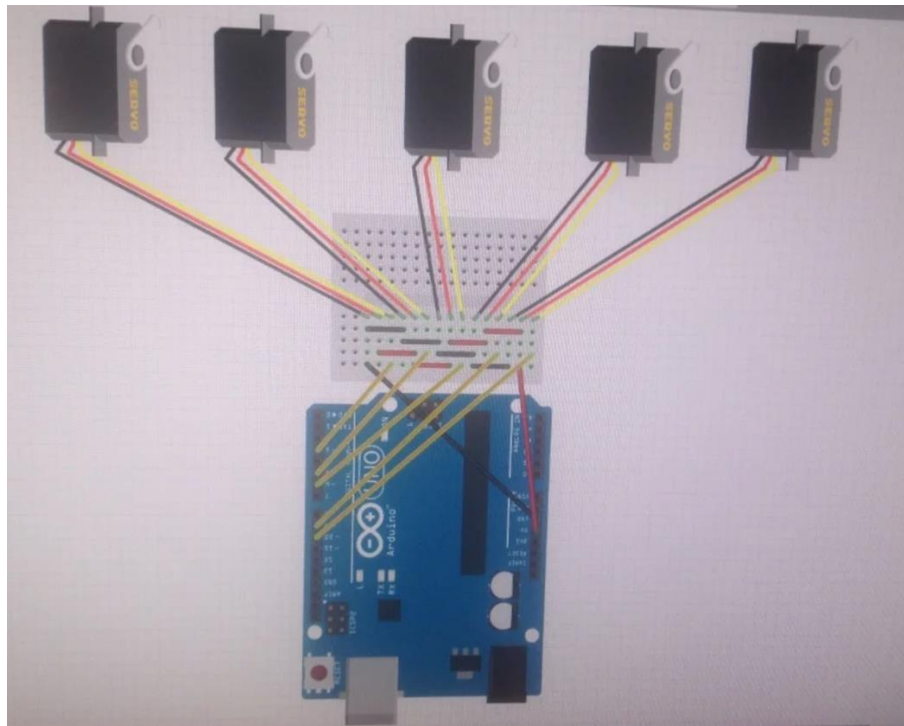
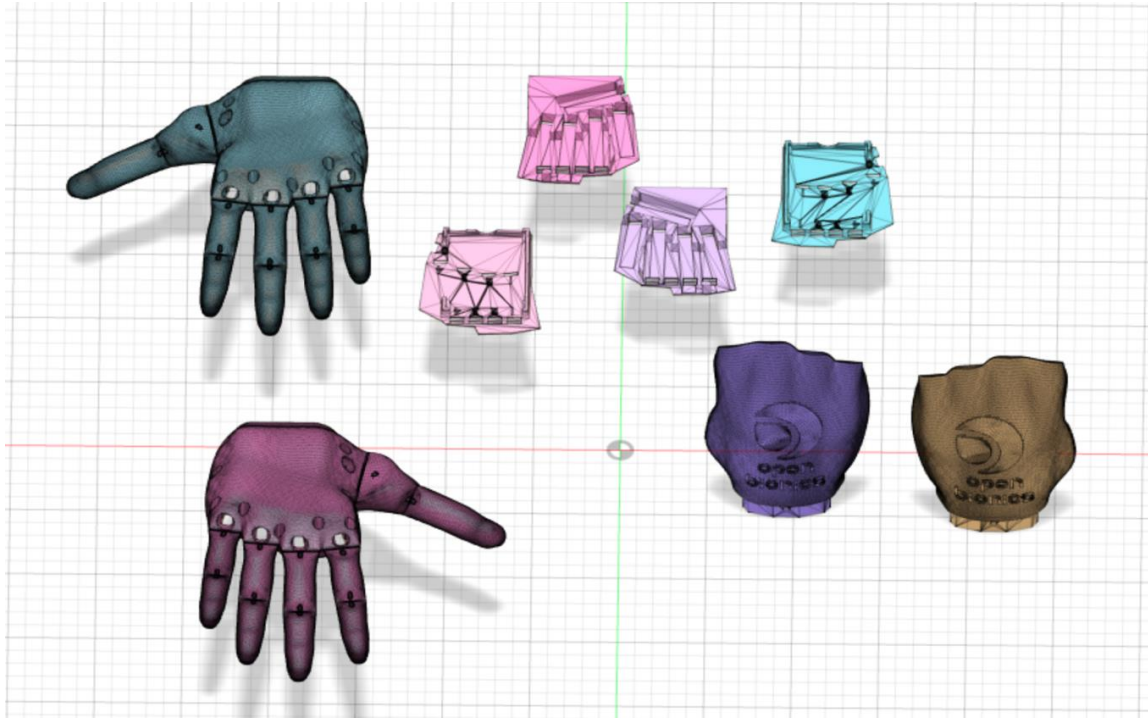
A robotic hand that can move in a way that resembles human hands is currently under development. The goal of this project is to create a robot hand that can perform various gestures and movements with great accuracy and fluidity. This technology will be used in many different areas, such as medical rehabilitation, prosthetic devices, industrial automation, and entertainment. By creating an artificial hand that closely mimics the natural movement of humans, we are able to improve upon current technologies while also providing new opportunities for innovation.

## **DESIGN AND DEVELOPMENT**

A microcontroller was used to control the servo motors and the gestures were controlled using a wireless controller. The wireless controller was programmed to send signals to the microcontroller, which then translated the signals into movements for the servo motors.

The robotic hand was tested for functionality and accuracy of movements. The movements were smooth and fluid, and the hand was able to perform various gestures, such as pointing, and grasping.

## HARDWARE



<https://www.thingiverse.com/thing:1294517>

## **CONCLUSION**

The robotic hand that flows gestures is a successful project that has demonstrated the capabilities of a robotic hand in performing various gestures and movements in a smooth and fluid manner. The design and development of this robotic hand provides a platform for further development in the field of robotics and has numerous applications in industries such as medicine, prosthetics, and entertainment.

In conclusion, this project has successfully demonstrated the potential of a robotic hand in performing various gestures and movements, and has provided a platform for further development in the field of robotics.

## **FUTURE WORK**

Future work will involve improving the accuracy and speed of the movements, as well as incorporating sensory feedback to allow for more advanced gestures and movements. The use of artificial intelligence and machine learning techniques will also be explored to improve the overall performance of the robotic hand.