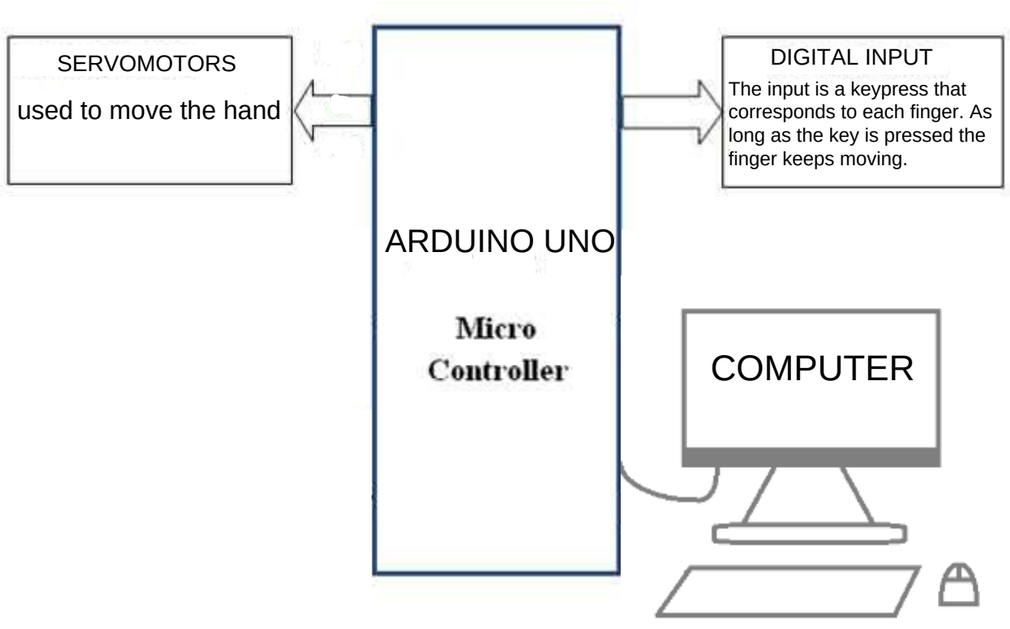
ROBOTIC HAND

OBJECTIVE

• To develop a deeper understanding of the human hand and how it works.
• To learn about the mechanical, electrical, and computer science principles that go into designing and building a robotic hand.
• To explore the potential applications of robotic hands in fields such as medicine, manufacturing, and space exploration.
• To develop skills in problem-solving, critical thinking, and teamwork
• To learn/develop Low cost/simple tool to aid a group or an organisation for a variety of purposes

BLOCK DIAGRAM



Robotics is a fascinating field of study and research that involves creating machines that can perform tasks that humans or animals can do. Robotics can be applied to various domains, such as medicine, manufacturing, entertainment, and exploration. One of the most challenging and interesting aspects of robotics is designing and building robotic hands, which are devices that can mimic the functions and movements of the human hand.

Robotic hands are essential for robots to interact with their environment and manipulate objects. They can also be used to help people with disabilities, such as those who have lost their hands or fingers, or to perform tasks that are too dangerous or difficult for humans, such as bomb disposal or surgery. Robotic hands work by using sensors, actuators, and controllers to detect and respond to external stimuli. They can improve the quality of life and independence of people with disabilities by providing them with prosthetic that can restore or enhance their hand functions. They can also create new opportunities and markets for industries that rely on robotic manipulation, such as manufacturing, agriculture, and entertainment. Robotic hands can also reduce the risks and costs of human labour in hazardous or remote environments, such as space, underwater, or war zones.

This project aims to design and build a robotic hand from scratch, using low-cost and easily accessible materials and tools. The robotic hands can also be customized to specific requirements and preferences, tested, and improved through experimentation and feedback. This project can also inspire creativity and innovation, and foster skills in problem-solving, critical thinking, and teamwork.

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