

Robotic Arm



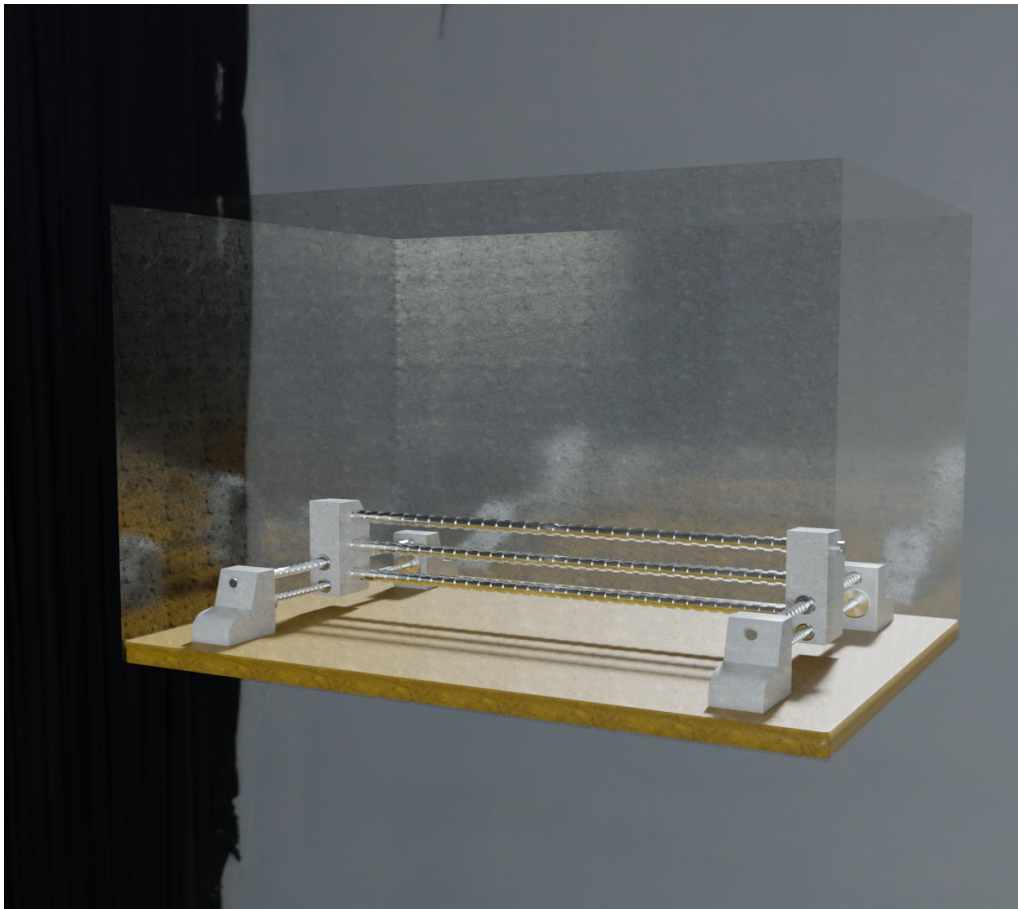
A.J.G.A.R project, a 6-DOF (Degree of Freedom) robotic arm is a sophisticated mechanical apparatus designed for precise and versatile movement across six axes. Widely utilised in industrial and manufacturing environments, this robotic arm excels in tasks such as pick-and-place operations, assembly, and welding. Its six degrees of freedom enable the arm to access any point within its operational workspace and orient itself in any desired direction. It is designed to autonomously handle objects, utilising computer vision technology for this purpose. It also supports remote operation via teleoperation.

MR Robot



MR Robot is an autonomous navigation robot capable of doing multiple day to day operations such as mapping, navigation for transportation, sanitation etc. Various other operations can also be performed thanks to its modularity.

Cnc



CNC stands for Computer Numerical Control. It refers to the automated control of machining tools and 3D printers by means of a computer. In a CNC system, a computerised controller executes pre-programmed sequences of machine control commands, known as G-codes and M-codes, to direct the movement of the tool and the workpiece, as well as control other aspects of the machining process. CNC technology is widely used in various manufacturing industries for tasks such as cutting, milling, drilling, additive manufacturing (3D printing), and more.

Hexapod



A Hexapod is a six-legged robot that mimics the walking patterns of insects, designed for stable and agile movement across different terrains. It utilises software like ROS for robot control, OpenCV for computer vision tasks, Gazebo for realistic simulation, and ORB-SLAM2 for simultaneous localization and mapping. Hexapods are commonly used in hazardous environments, including disaster management, agriculture, and environmental monitoring.