

YASHRAJ KUMAWAT

IOT & ROBOTICS DEVELOPER

+91-7357446466

Kankroli, Rajsamand, Rajasthan

yashrajcumawat7357@gmail.com

yashraj-kumawat-14.github.io/portfolio

OBJECTIVE

To design, develop, and integrate intelligent robotic systems with IoT technologies for real-time data exchange, remote control, automation, and decision-making. The goal is to build smart, connected robots that can sense, act, and communicate effectively in environments like smart homes, industries, agriculture, healthcare, and defense.

SKILLS

Arduino/Esp32

Python

Java

Javascript

C/C++

IoT App development

PROJECTS

Voice-Controlled Home Automation using MQTT

This project allows users to control home appliances using voice commands through a mobile app or voice assistant. The system uses MQTT protocol for lightweight, real-time communication between the voice interface and ESP-based microcontrollers connected to relays. When a voice command is given (e.g., "Turn on the fan"), it is converted into an MQTT message and sent to the broker, which routes it to the appropriate device for action.

Close-In Weapon System project (CIWS)

This project is a prototype of a Close-In Weapon System designed to detect, track, and engage incoming threats like missiles. It uses an ESP32-CAM for real-time video streaming and object detection (e.g., missile drawings). The system tracks targets using computer vision and controls servo motors to aim accurately. A laser module simulates firing on the target. The prototype includes a web interface for live feed and manual override, and the system can auto-lock and engage threats. It demonstrates core CIWS concepts like automated detection, tracking, and response using low-cost components.

Agriculture rover prototype

This agriculture rover is a simple, manually controlled prototype built to assist in small-scale farming. It features a water pump for irrigation and a mechanical seed dispensing system for planting. The rover is driven remotely via mobile app. Its modular design makes it easy to maintain and upgrade, offering a low-cost solution to reduce manual labor in basic farming operations.

EDUCATION

<div>Sophia Public School</div> <div>Class 10</div> <div>77.8%</div>	2021
<div>RSOS</div> <div>Class 12</div> <div>65</div>	2023