## SRIDHAR M

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## **Technical Skills**

Languages : C, C++, Python,HTML(basics)
Controllers : Arduino,Pic,ESP32&ESP8266

• Kernal :Ubuntu

• Iot protocols :Mqtt(mosquitto,shiftr),GSM, LoRa

• Communication protocol :UART/USART

### Responsibilities

- Developed and calibrated control algorithms for autonomous systems and integrated hardware components.
- Conducted comprehensive testing, including functional, regression, and performance evaluations, ensuring system reliability.
- Created and managed detailed test scripts, scenarios, and defect reporting processes.
- Documented system design, testing methodologies, and performance results.
- Optimized system performance through iterative testing and refinement.
- Collaborated with cross-functional teams to address and resolve issues efficiently

# **Education**

• **B.E** (**ECE**)

2021-2025 with 75 %, Thanthai Periyar Government Institute of Technology, Vellore, Tamil Nadu, India

HSC

2020-2021 with 92% Shri Vidhya Bharathi Higher Secondary School, Namakkal, Tamil Nadu, India

S.S.L.C

2020 with 88 %, SPM Higher Secondary School, Namakkal, Tamil Nadu, India

## **Internships**

• 3-month of Intern at Blackfox Embedded Solutions, Erode - 638001 from May 2024 to August 2024

#### **Projects**

#### PROJECT 1:

Title : Bluetooth car with Metal detector

Year : 2022

QA Team Size : 2

Role : Hardware and Firware developer

Responsibility : Developed Firmware, Metal Detection Integration, Bluetooth

Communication, User Interface Development, System Testing and Debugging, Performance Optimization, Documentation and Reporting

System Overview : Developed a mobile-controlled Bluetooth car using the Blynk app with an integrated metal detector for identifying metallic objects. The project

combined hardware and firmware development to enable real-time detection

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and control

#### **PROJECT 2:**

Title : Garbage detection and Bin level indication

Year : 2023

QA Team Size : 3

Role : Hardware and Firware developer

Responsibility : Developed firmware to automate bin operation based on AI classification

and monitored bin levels with ESP32, sending data to a web

server, conducted iterative testing, identified defects, and logged issues in the

bug tracking system during Agile sprints.

System Overview : Developed a smart waste management system that classifies waste as

biodegradable or non-biodegradable using AI, automatically opening the appropriate bin. The system also monitors bin levels and transmits the data to a web interface using ESP32 for real-time tracking and management

#### **SUB-PROJECT:**

Title : Material Positioning using IR sensor

Year : 2024

QA Team Size : 3

Role : Hardware and Firmware developer

Responsibility : Developed and calibrated IR sensor and motor control code, and integrated ESP32 for

real-time web display of object positioning.

System Overview The system uses two IR sensors to detect an object's presence and position. An ESP32

processes this data to control a motor, ensuring accurate placement of the object. Additionally, the ESP32 displays real-time positioning information, confirming the

object's placement and enhancing monitoring and control.

### **PROJECT 3:**

Title : Autonomous Robot with Handshake, Object Avoidance, and Event Display

Year : 2024

QA Team Size : 5

Role : Hardware and Firmware developer

Responsibility : Developed and tested autonomous robot functions, including gesture-based handshake,

object avoidance, with ongoing defect classification and reporting

System Overview The system features an autonomous robot controlled by Arduino for gesture-based

interactions and object avoidance using ultrasonic sensors. Events and status updates are displayed in real-time on a Raspberry Pi, providing a comprehensive interface for

monitoring and control.

### Personal Profile

Date of Birth : 29 Dec 2003

Languages Known : English, Tamil.

Nationality : Indian

Permanent Address : Namakkal, Tamil Nadu, India

## Declaration

I hereby declare that the information stated above is true to the best of my knowledge as of the stated date, and may be subject to change based on newly discovered information or the execution of other projects.

Place: Namakkal, Tamil Nadu, India

Date: