# TRẦN ĐỰC HIẾU

# INTERN OR FRESHER C/C++, EMBEDDED, IOT

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#### **SUMMARY**

I am a final year student at HCMUTE majoring in Embedded Systems and IOT. I'm quite sharp in algorithm processing, in addition, I'm a fast learner, sociable and I know how to set and reach goals. I hope I can learn and contribute to the company.

## **TECHNICAL SKILLS**

- Embedded Engineer: C/C++, Algorithm, Arduino, Linux, Hardware Design.
- Mobile Developer: Android.
- Communication: MQTT, Firebase, TCP/IP.

### **EDUCATION**

Ho Chi Minh City University of Technology and Education | 10/2020 - Present

Major: Embedded System and IOT

### **PROJECTS**

**Project:** Traffic Light System

Time: 3 Months **Description:** 

Traffic light system manual control of light modes by push buttons and automatic control mode by RTC

The system uses 3 buttons to control 4 modes:

- Night mode
- Day mode
- Rush hour mode
- Automatic control mode by RTC

Project: Smart Garden Time: 4 Months Description:

The system consists of a website, an android app and a hardware node that controls the device.

- The system will read the temperature, humidity, PH, light intensity, operating status of the devices and then upload the data to firebase.
- From the data on firebase, display parameters to the website, the app visualizes the data and sends the device on and off signals from the web, the app to the hardware.

Project: Led control on Virtual Raspberry

Time: 1 months

Description:

Build kernel, driver, compile led driver program

Project: Line-following Robot using Arduino

Time: 3 Months

Description:

Line detectors use infrared sensors to detect and track lines on a plane.

The infrared sensor emits an infrared signal and measures the reflection of the signal from the surface.

When the infrared sensor is placed near the line, the signal reflected from the line will have a different reflectance than the signal reflected from the surface without the line.

Based on this difference, the signal processing algorithms can distinguish between lines and nonlinear surfaces.

Project: DC motor speed control

Time: 2 Months

Description:

DC motor speed control using PID and L298 control the speed of DC motor by combining PID (Proportional-Integral-Derivative) control algorithm with L298 motor control circuit.

The problem to be solved is how to control the speed of the DC motor according to a preset value while ensuring the accuracy.