Ho Hoang Duy

Hardware Design Engineer

+84 704735647 | hoangduy2206.ute@gmail.com | duyhohoang.github.io | Ho Chi Minh City

OBJECTIVE

I'm an Automation Engineering graduate from HCMC University of Technology and Engineering, passionate about electronic hardware design, PCB layout. Seeking a Hardware Design Engineer position to apply my technical skills, gain practical experience, and contribute to product development.

TECHNICAL SUMMARY

Circuit Design and PCB Layout (2–4 Layers):

- Designing AC-DC, DC-DC power supply with various power supply Topology (Buck, Boost, LDO).
- Basic understanding of Signal Integrity and EMI/EMC.
- PCB design for IoT applications using STM32 and ESP32.
- PCB design fundamentals: Stackup configuration, Constraints, Component placement, Signal routing, Routing, and Return paths.
- Designing PCB layer circuits for wireless connectivity LoRa, Wifi, SIM 4G.
- Design high-speed interface: Ethernet, USB.
- PCB design including schematic design, PCB layout, and BOM management.

Programming Languages and Control System:

- Basic firmware development using C/C++ for STM32 and ESP32.
- Applied communication protocols including I2C, UART, SPI, CAN Bus, RS232, and RS485.

PERSONAL PROJECT

IoT Node and IoT Gateway | Link project

- Designed power conversion circuits from 220VAC to 24VDC, 5VDC, and 3.3VDC.
- Integrated SHT31 temperature and humidity sensor via I2C, with RTC-based timekeeping and EEPROM/SD card data storage.
- Implemented RS485 sensor communication and wireless connectivity using Wi-Fi and LoRa.
- Developed relay control circuitry for industrial contactor switching via the IoT Vision APP.

Industrial Pump Controller & Data Logger | Link project

- Designed an STM32F407 based controller for industrial pump monitoring, VFD control and data logging.
- Developed multi-rail power supplies (12V, 5V, 4V, 3.3V, and 1.8V).
- Integrated peripheral modules including RTC, EEPROM, SD Card, Relays, and Buzzer.
- Designed communication interfaces including 2× CAN Bus, 1× RS485, 2× RS232, Ethernet, and SIM7600/GNSS connectivity.

EXPERIENCE

ST Engineering Solution JSC | Electrical Technician 4/2024 – 8/2025

- Perform wiring and termination for AHU, FCU, and DDC control panels.
- Collaborated with team members to analyze problems.

Hung Thinh Phat Elevator | Electrical Technician 9/2025 – 9/2026

- Installed electrical systems and components for elevator systems.
- Performed wiring and electrical connections for elevator control panels.
- Troubleshot electrical faults and performed maintenance and servicing of elevator systems.
- Worked with electrical circuits, wiring diagrams, and elevator control systems.

TECHNICAL SKILL

EDA & PCB: Kicad, Altium, Arduino IDE, STM32CubeMX, PCB Toolkit.
Programming: C/C++.
Testing: Multimeter, Oscilloscope.

EDUCATION

Ho Chi Minh City University of Technology and Engineering 9/2026

Automation and Control Engineering Technology.

3DVisionLab – AIoTSemiconductor 10/2026

Completed practical training in PCB design, including schematic design and PCB layout.