ETHEM IŞILDAR

Electrical and Electronics Engineer

CONTACT

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SUMMARY

Passionate Electrical and Electronics Engineering student with hands-on experience in hardware design, embedded systems and electronics. Eager to contribute to innovative projects

SKILLS

- Altium Designer
- C
- MATLAB - Simulink
- Microprocessors

(STM32, ESP32, Arduino, PIC)

- Proteus
- IoT

EDUCATION

GAZI UNIVERSITY

Ankara, Turkey

Bachelor of Science:

Electrical and Electronics Engineering

- **Coursework:**

Power Electronics (I-II), Microprocessors, C Programming, Matlab Programming, Industrial Automation, Circuit Theory (I-II), Electronics (I-II), Introduction to Robotics, Renewable Energy, Industrial Communication

- **Thesis: IoT Smart System**

Presented a **smart system** as a school project that utilizes an **ESP32** microcontroller integrated with self-designed PCB—featuring a 12V power input, 5 relays, 6 digital inputs, 4 analog inputs, and RS485 connectivity—along with a custom Android application developed using **Flutter** for WiFi communication.

Oct 2021 - June 2025

WORK EXPERIENCE

Promec Engineering FEB 2025 - MAY 2025

Embedded Engineer Intern

Currently doing a long-term internship in the Embedded Systems department at a company working on defense industry projects.

- Developed embedded software using STM32 to control a **rotary actuator** via the **CANopen** protocol, implementing position, velocity, and torque control modes.
- Developed STM32 firmware to send **AT command** scripts over UART to a **Bluetooth module**, enabling automated device name changes. This allowed rapid renaming of multiple modules efficiently.
- Learned to drive a **BLDC** motor using the **IHM08M1** board with **ST Motor Control Workbench**, implementing both **FOC** and **six-step** commutation methods.

ONES Technology JUL 2024- SEP 2024

Hardware Engineer Intern

Completed a 40-day internship at Ones Technology, a company specializing in security systems.

- Learned PCB design using **Altium Designer**.
- Designed a **buck-boost converter** PCB using the **LM5111** IC, providing a 12V output from a 9–36V input range.
- Designed a relay output board with **RS485** communication support.
- Designed a compact robot PCB featuring two stepper motors, two DC motors, and directional control buttons.

VOLUNTEERINGS

Cigre Gazi Feb 2022 - Oct 2023

Vice President

Part of the founding team of the CIGRE Gazi Community and served as the Vice President of a 15-member board and a 150-member student community.

- Organization
- Management

Elitat - HSD Gazi Oct 2021 - Feb 2022

Board Member

Served on the board of directors of the Elitat Community and Huawei Student Developers at Gazi University as a designer.

- Organization
- Designing