

Göktürk Göçen

Electrical & Electronics Engineer | Embedded Systems & Industrial IoT

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PROFESSIONAL SUMMARY

Electrical & Electronics Engineer building end-to-end industrial IoT systems — from ESP32/STM32 firmware and industrial protocols (Modbus, BLE, MQTT/TLS) to secure cloud backends, web dashboards, and native mobile apps. Owns products solo across the full stack and ships to production.

EXPERIENCE

R&D Developer

Jan 2026 – Present

Robodor — İzmir, Turkey

- Developed industrial control and monitoring software for Robodor controller boards.
- Built mobile, desktop SCADA, and web/admin interfaces using Modbus, BLE, RS485, WebSockets, and cloud services.
- Delivered hardware-software integration, real-time telemetry flows, operator UIs, and automation prototypes.

R&D Engineer (Intern)

Jul 2025 – Aug 2025

Öztaş Global Soğutma — İzmir, Turkey

- Designed industrial interfaces with Nextion HMI for refrigeration control systems.
- Conducted system testing and troubleshooting for control and automation solutions.

Technical Maintenance (Intern)

Aug 2024 – Sep 2024

Batıçim — İzmir, Turkey

- Supported electrical maintenance and troubleshooting of industrial drives and control panels.

SELECTED PROJECTS

Doorodor — Industrial Door-Control IoT Cloud Platform

Full-Stack · Solo

TypeScript, Next.js, Node/Fastify, Swift/SwiftUI, ESP32/C, MQTT/TLS, PostgreSQL, Redis, EMQX, AWS

- Built an end-to-end IoT platform (Next.js web, native iOS, Fastify backend, ESP32 firmware) for remote control, monitoring, and OTA updates of industrial door controllers.
- Secured device-to-cloud messaging with MQTT/TLS, private PKI, multi-tenant isolation, and RBAC; deployed on AWS with PostgreSQL, Redis, EMQX, Clerk auth, and Paddle billing.

Robodor Web Platform (robodor.com)

Production Site

Next.js, React, TypeScript, Prisma, PostgreSQL, NextAuth, Puck CMS, Tailwind, Vercel

- Built a live six-locale B2B product catalog and custom CMS with full SEO/i18n and admin-editable content workflows.

Robodor SCADA Terminal

Industrial Desktop App

Tauri, React, TypeScript, Node.js, WebSocket, SQLite, Modbus TCP/RS485

- Built a LAN desktop SCADA viewer for ~100 controller cards over Modbus TCP/RS485 — snapshot diffing, WebSocket fan-out, SQLite audit trail, and alarms.

STM32 SyncMotion Follower

Embedded Firmware

STM32G0, Embedded C, STM32 HAL, Quadrature Encoder, Stepper Driver, RS485

- Developed real-time encoder-follower firmware driving a stepper motor with non-blocking control, 1/32 microstepping, timer-based control, and RS485 telemetry.

TECHNICAL SKILLS

Embedded & Industrial: STM32, ESP32, Embedded C, Arduino, Modbus RTU/TCP, RS485, UART, BLE, MQTT/TLS, Nextion HMI, OTA firmware updates

Frontend & Mobile: Swift/SwiftUI, Kotlin, Jetpack Compose, React, Next.js, TypeScript, Flutter, Tailwind CSS

Backend, Cloud & Security: Node.js/Fastify, Python, AWS (EC2, Lambda, CloudFront, Cognito, DynamoDB, S3, CDK), PostgreSQL, Redis, EMQX, Prisma; private PKI/TLS, multi-tenant isolation, RBAC, Clerk/NextAuth, audit logging, CI/CD

Control & Tools: PID control, state-space modeling, state feedback, MATLAB, Simulink; Git/GitHub, GitHub Actions, STM32CubeIDE, Xcode, Android Studio

EDUCATION

B.Sc. in Electrical and Electronics Engineering

2019 – 2026

Ege University — İzmir, Turkey

LANGUAGES

Turkish — Native | English — Professional / Technical Proficiency