

TALHA UĞUR

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SUMMARY

Senior Electrical-Electronics Engineering student at Turkish-German University. Formula Student alumni with three years of practical R&D experience in the TGU Racing team. Skilled in analog and digital circuit design, hardware development, and safety systems for vehicle electronics. Adept at taking complex schematics through to PCB manufacturing and testing. Seeking to apply my hardware background to an R&D-focused engineering role.

EDUCATION

Turkish-German University <i>B.S. in Electrical-Electronics Engineering</i>	Istanbul, Turkey 2021 – Present
• Relevant Coursework: Op-Amp Circuit Design, Embedded Systems, Microprocessors, RF Frontend Devices and Circuits, Electronic Circuit Technology, FPGA Design, Deep Learning	
Kayseri Sümer Science High School <i>High School Diploma</i>	Kayseri, Turkey 2017 – 2021

EXPERIENCE

ASPIILSAN Energy <i>Quality Control Summer Intern</i>	Kayseri, Turkey Jul 2026 – Aug 2026
• Acquired theoretical knowledge regarding auditing and process compliance for aerospace and defense standards, specifically AS9100 and MIL-STD-704. • Studied IPC standards governing electronic assembly and soldering acceptability criteria, observing quality control procedures. • Monitored testing and quality verification processes for lithium-ion battery cells, battery modules, and BMS units.	
Albrecht Bäumert GmbH <i>Basic Workshop Intern</i>	Freudenberg, Germany Aug 2024 – Sep 2024
• Participated in the assembly and wiring of industrial automation panels compliant with DIN/ISO standards. • Implemented commissioning procedures for motor drives, contactors, and sensor systems. • Conducted cable duct installation and line-routing operations in accordance with German industrial standards (DIN/VDE). • Gained practical experience with German industrial work discipline and workplace safety protocols.	

PROJECTS & ENGINEERING EXPERIENCE

TGU Racing Formula Student Team <i>Electronics Department</i>	Istanbul, Turkey Oct 2023 – Oct 2026
• Safety and Control Boards: Designed schematics and PCB layouts for Tractive System Active Light (TSAL), Brake System Plausibility Device (BSPD), Precharge, and Latch boards; executed laboratory testing and manufacturing processes. • System Integration: Ensured Shutdown Circuit State (SCS) compliance and integrated hardware emergency stop circuits within the vehicle. • BMS and Temperature Sensing: Designed and manufactured multi-channel thermistor (NTC) boards to monitor cell temperatures for the Battery Management System (BMS). • Competition Experience: Actively participated in technical inspection (scrutineering) and electrical operational procedures at Formula Student Turkey 2025 and achieved 2nd place in EDR Class 3 at FS ATA Italy 2026.	
FPGA-Based Color Recognition Project VHDL, ModelSim / Vivado	2025
• Designed and implemented a simulation-based hardware color recognition system and memory architecture using VHDL.	
Biomedical Electronics: EMG Device Design Analog Design, Op-Amp, LTspice	2026
• Designed an op-amp-based electromyography (EMG) acquisition circuit and implemented analog signal filtering stages.	
Embedded Systems & IoT Projects ESP32, Arduino, C/C++, SolidWorks	
• Developed DIY control and embedded monitoring projects utilizing Bluetooth and Wi-Fi communication protocols.	
13th MEB International Robot Competition Sümer Science High School	High School
• Built and programmed an autonomous robot in accordance with the Line Follower competition regulations.	

TECHNICAL SKILLS

Programming & Software: C, C++, Python, VHDL, MATLAB, Shell
Design & Simulation: Altium Designer, KiCad, LTspice, Proteus
Hardware & Tools: STM32, Arduino, ESP32, Git, Oscilloscope, Laboratory Test Equipment
Areas of Expertise: Analog/Digital Circuit Design, Multi-Layer PCB Layout, Safety Circuits, Power Electronics, Hardware R&D

LANGUAGES & CERTIFICATIONS

Languages: Turkish (Native), German (C1), English (B2)	
Altium Education PCB Basic Design Course <i>Altium</i>	2026
TestDaF Certificate (14/20) <i>German as a Foreign Language</i>	2023
Exitcom Campus Certificate <i>Battery Systems</i>	2024