SKILLS

- Multi-layer PCB design
- eCAD
- Altium
- Allegro
- KiCAD
- EasyEDA
- Eagle
- Firmware development
- Controller programming
- Simulation
- Multisim
- Simulink
- PSpice
- Internet of Things
- RF & antenna design
- Robot operating system (ROS)
- Signal Processing
- Machine Learning

SOFT SKILLS

- Communication
- Creativity
- Critical thinking
- Adaptability
- Teamwork
- Management
- Intiative
- Probelm solving

INTERNSHIPS

Quest Lab, Pakistan
(07/2019 - 10/2019)
Internee as Mechatronics Engiineer at Quest Lab. Developed a 3-axis mini CNC machine

National Institute of Electronics (09/2018 - 10/2018)
Internee as Electronics Engineer at SMT lab, NIE.

M Tahoor Aasim

Embedded Systems Engineer| PCB Designer

Tahoor is a seasoned Embedded Systems specialist focused on hardware/ PCB design and firmware development. With a proven track record of collaborating with diverse organizations, he has crafted innovative solutions. His expertise extends to consumer electronics and the creation of customer-centric applications.

tahoorasim27@gmail.com
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Islamabad, Pakistan
linkedin.com/in/tahoor27

WORK EXPERIENCE

Embedded Engineer & Project Manager
607 Regional Workshop, Pakistan
02/2022 - Present
Achievements/Tasks
- Incharge of planning, control and quality management.
- Indigenous development of PCBs and reverse engineering, reducing procurement and manufacturing costs.
- Development of defence-affiliated projects, and maintenance of combat vehicles.

Hardware Engineer & PCB Designer
Upwork Freelancer
01/2022 - Present
https://www.upwork.com/fl/tahoor2627
Achievements/Tasks
- Top-rated Freelancer on Upwork, with five-star reviews and 100% job success score.
- Providing services as an expert PCB designer and firmware developer.
- Collaboration with multiple startups and organizations to develop ready-to-launch products.

Embedded Systems Engineer
Blitzkrieg Defense Solutions| Cavalier Group, Pakistan
07/2021 - 12/2021
Achievements/Tasks
- Developed an unmanned ground vehicle for carrying autonomous navigation of preplanned missions.
- Development of UAV with a weapon cradle system augmented with target detection.
- PCB design of custom development boards to be used in various applications.

PROJECTS

Unmanned Ground Vehicle
- UGV based on Nvidea's Jetson Nano, working on ROS.
- User defined waypoints and path generation for autonomous navigation.

Wireless Bluetooth Speakers
- Bluetooth speakers for professional bike riders; integrated with Microchip's BM20 Audio module.
- Detachable design and seamless connectivity over Bluetooth 5.0.

Green House Automation
- Based on AVR's ATMEGA 328, augmented with Esp32 for WiFi and BLE connectivity.
- Six channels to control actuators, motors and sensors.

INTERESTS

- Embedded Systems
- Microcontrollers
- Cosumer electronics
- Circuit design
- Prototyping

LANGUAGES

English
Full Professional Proficiency

Urdu
Native or Bilingual Proficiency

PROJECTS

Pixel LED Controller
- Based on Esp32 S3 with support for WLED.
- 8-channels for connecting LED strips.
- Onboard power distribution, capable of safely providing upto 50A of current.

PC Switch
- Based on Esp32 C3 mini, to control Desktop PCs wirelessly.
- Compatible with most motherboards to access the system via the USB 2.0 plug.

Wireless Typewriter and Mechanical Keyboard
- Wirless keyboard compatible with MX key switches.
- Onboard OLED display for typing on the go, with documents being saved in cloud.
- Connectivity via windows/ Mac through bluetooth or USB.

Breathpacing Wearable
- Smart wearble device to monitor a person's breathing.
- Onboard haptic feedback to allowing user to pace their breathing as per defined intervals.

EDUCATION

Masters in Engineering Management
Sir Syed Case Institute of Technology, Pakistan

09/2022 - Present *CGPA-3.50*

Thesis
- Evaluating components of Lean Integrated Management System impacting technological innovation

Bachelors in Mechatronics Engineering
National University of Science and Technology, Pakistan

07/2017 - 07/2022 *CGPA-3.65*

Thesis
- GPS triangulation for accurate waypoint navigation for unmanned ground vehicle