

Khandaker Siam Ahmed

+880 130 304 8942 | siam.ahmed.mahin@gmail.com | Dhaka, Bangladesh

LinkedIn | GitHub | GrabCAD | WhatsApp

EDUCATION

Islamic University of Technology (IUT)

B.Sc. in Mechanical Engineering | CGPA: 3.53 / 4.00

Awarded OIC Partial Scholarship: Merit-based grant valued at USD 14,000.

Government Science College

Higher Secondary Certificate (HSC), Science | GPA: 5.00 / 5.00

Jan 2023 – 2027 (Expected)

Gazipur, Bangladesh

2022

Dhaka, Bangladesh

EXPERIENCE

Short Circuit

Co-Founder

May 2025 – Present

Dhaka, Bangladesh

- Established an online electronics platform serving **100+ engineering students**, generating over **BDT 200,000** in revenue within the first quarter.
- Managed supply chain logistics by establishing direct relationships with local wholesale vendors, achieving a **15% profit margin** on components.

Project Altair (IUT Mars Rover Team)

Junior Executive, Mechanical & Manufacturing Subteam

Nov 2024 – Present

Gazipur, Bangladesh

- Spearheaded mechanical design of the rover's chassis and suspension systems, selecting materials to optimize strength-to-weight ratio.
- Validated structural integrity by conducting **FEA static stress analysis** using **SolidWorks Simulation**, contributing to the team securing **18th position globally** at the University Rover Challenge (URC).
- Collaborated on design submissions for the International Rover Design Challenge (IRDC) 2025 and European Rover Challenge (ERC) 2024.

Project Aqua (IUT Underwater Rover Team)

Junior Executive, Mechanical Team

Nov 2024 – Present

Gazipur, Bangladesh

- Executed detailed CAD modeling of underwater vehicle prototypes using **SolidWorks** to ensure precise assembly fitment.
- Created photorealistic renders and mechanism animations using **Blender** for technical presentations and design visualization.
- Played a pivotal role in achieving **2nd Place** at the Underwater Vehicle Design Challenge, IIT Guwahati.

TECHNICAL PROJECTS

Automatic Garbage Sorter System | Mechatronics & ML Integration

Academic Project

- Designed a custom mechanical actuation system using **herringbone gears** and **stepper motors** to ensure precise torque transmission for waste sorting.
- Integrated an **ESP32 microcontroller** to drive the mechanical sorter based on classification data from a YOLO-based computer vision model.

Advanced Line Following Robot | Embedded Systems

Hobbyist Project

- Developed an autonomous robot featuring an OLED display interface, rotary encoder inputs, and an EEPROM-based menu system.
- Implemented PID control algorithms and integrated ultrasonic sensors for high-speed navigation and obstacle avoidance.

TECHNICAL SKILLS

Software & Design: SolidWorks (CSWA Certified), SolidWorks Simulation, Blender, Proteus, Arduino IDE

Programming: C, Embedded C, Python

Core Competencies: CAD/CAM, FEA Analysis, Mechatronics, Control Systems, Embedded Systems

ACHIEVEMENTS & CERTIFICATIONS

Certified SolidWorks Associate (CSWA): Certification by Dassault Systèmes.

Champion: Cezeri Lab Annual Project Competition 2025.

2nd Place: Underwater Vehicle Design Competition, IIT Guwahati, India.

2nd Runners-up: Auto Sculpt Season 2, organized by IUT Automobile Society.

Member: International Association of Engineers (IAENG).