

FAHIM AHMAD

Engineering Project Manager | Mechatronics R&D | Robotics & Automation

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PROFESSIONAL SUMMARY

Engineering Project Manager and Mechatronics R&D professional with 3+ years delivering defense-grade robotic systems, AGVs, UAVs, and industrial automation products. Managed **25 cross-functional engineers**, a **25 Crore BDT** portfolio, and defense-sector stakeholder relationships. Certified in SOLIDWORKS (CSWP), Google Project Management, and Lean Six Sigma.

PROFESSIONAL EXPERIENCE

Cybernetics Hi-Tech Solutions (Pvt.) Ltd. Engineering Project Manager, Robotics & Automation

Dhaka, Bangladesh

Dec 2025 – Present

Portfolio: Smart Energy Meter | EOD ROV | AGV | UAV | Industrial 3D Printer | Automation Systems

- Directed **6 concurrent hardware product lines** across a **25 Crore BDT portfolio**, managing end-to-end execution from R&D to field delivery with full accountability for milestones, deliverables, and stakeholder reporting
- Reduced delivery lead time by **25%** by restructuring procurement workflows, vendor coordination, factory visits, and logistics across local and international supply chains
- Achieved **12% cost reduction** through BOM rationalization, vendor negotiations, finance process control, and dispute resolution (billing, MoUs, payment cycles)
- Managed stakeholder relationships across defense, energy, and industrial automation clients, driving revenue conversion through product demos, technical proposals, and post-delivery follow-ups
- Established structured operational tracking via **MS Project** dashboards, improving cross-team visibility and enabling proactive risk mitigation across high-complexity mechatronics programmes

Walton Digi-Tech Industries Limited First Senior Assistant Director, Mechanical Designer

Dhaka, Bangladesh

Sep 2025 – Dec 2025

- Translated **product strategy into structured workstreams** with milestones, requirements, and cross-department deliverables aligned to business objectives
- Led **design reviews** and ensured requirement alignment across R&D, production, quality, and senior management
- Delivered **engineering documentation, release packages, and change-control files** for mass manufacturing readiness
- Collaborated with **sales and marketing teams** to support go-to-market planning and product launch execution
- Ensured **cross-functional alignment across Sales, Marketing, Supply Chain, and Engineering** to maintain product readiness and stakeholder visibility

Cybernetics Hi-Tech Solutions (Pvt.) Ltd. Lead, Mechanical Engineer

Dhaka, Bangladesh

July 2024 – Sep 2025

▷ EOD-ROV: Man-transportable Explosive Ordnance Disposal Vehicle

Mechanical Team Lead & PM | Team: 8 Engineers | Budget Authority: 4 Crore BDT

- Led bid team securing government project approval: defined **120+ technical specifications and 30+ key deliverables**, ensuring stakeholder alignment with defense procurement authorities
- Designed and validated actuation systems selecting **Harmonic and Planetary servo motors with CANBus protocols**; conducted kinematic analysis to meet torque and precision control requirements
- Ensured compliance with **MIL-STD-810H** (environmental), **MIL-STD-461G** (EMI/EMC), and **MIL-STD-1472H** (human engineering) throughout design, validation, and risk assessment phases
- FMEA-driven design validation reduced development cycle time by **18%** and ensured on-milestone field deploy-

ment

- Reduced system cost by **16%** through BOM rationalization and vendor selection without compromising performance requirements



Jontro Soinik 1.0 – EOD ROV Field Demo (Scan or Click)

youtu.be/3r5VhLD1Ths

▷ **AGV System: RMG Factory Deployment**

Project Manager

- Led end-to-end AGV deployment managing a **cross-functional team of 6**; all milestones delivered on schedule
- Achieved **13% reduction in material handling time** through sensor-optimised navigation route redesign and workflow mapping
- Built full BOM, project budget, and **KPI tracking framework**; conducted risk assessment and devised emergency operation protocols



Cyberfleet AGV – Bangladesh's First AGV System Demo (Scan or Click)

youtu.be/hJIHvIHfOaA

▷ **UAV: Multi-Payload Platform (Surveillance | Cargo 10–100 kg | Combat-Support)**

Project Manager

- Managed multi-disciplinary teams delivering UAV platforms across payload classes; reduced project costs by **10%** through BOM optimisation and resource allocation
- Managed stakeholder engagement for **5+ clients including Bangladesh Army and Border Guard Bangladesh (BGB)**, incorporating defence specification feedback into design iterations and milestone reviews

Spectrum Engineering Consortium (Pvt.) Ltd.

R&D Engineer, Mechanical

Dhaka, Bangladesh

April 2023 – June 2024

▷ **EOD-ROV “Jontro Soinik 1.0”: Bangladesh Army & UN Mission**

Industrial Design and R&D Engineer | Clients: DGDP / Bangladesh Army Bomb Disposal Unit / UN Peacekeeping Mission

- **Delivered 3 field-deployed EOD ROVs** to DGDP for Bangladesh Army's Bomb Disposal Unit and UN Peacekeeping Mission, accepted against military-grade acceptance criteria; units deployed on **UN Peacekeeping Missions in Mali and the Democratic Republic of Congo**
- System formally **transferred to the Peruvian Armed Forces on 05 May 2024**, marking Bangladesh's first export of a domestically built defense robot to another nation's armed forces
- Designed **30+ mechanical components and prototypes** in SolidWorks, applying GD&T and achieving **±0.1mm manufacturing tolerance** across structural and actuation assemblies
- Conducted **FMEA** and **10+ formal design reviews**; risk mitigation actions reduced late-stage design changes by **15%**
- Resolved **30+ R&D blockers** in cross-functional collaboration with electronics, control systems, and fabrication teams, keeping the programme on milestone schedule
- Reduced assembly error rate by **23%** (26 to 20 defects per 100 assemblies) through structured build instructions and in-process inspection protocols

EDUCATION

Ahsanullah University of Science and Technology (AUST)

B.Sc. in Industrial and Production Engineering | CGPA: 3.51 / 4.00

Dhaka, Bangladesh

January 2019 – May 2023

SKILLS

Project Management: MS Project, Jira, Notion, Stakeholder Management, Risk Management, KPI Tracking, BOM Management, Budget Control

CAD & Design: SolidWorks (CSWP), Fusion 360, Autodesk Design Modeler, SpaceClaim, GD&T, DFM/DFA

Simulation & Analysis: SolidWorks Simulation, ANSYS Workbench, FEA, FMEA, Structural Analysis

Robotics & Systems: Kinematics, Control Systems, Sensor Integration, CANBus, AGV/ROV/UAV Integration, ROS (basic), Python

Standards: MIL-STD-810H, MIL-STD-461G, MIL-STD-1472H

Tools & Platforms: Microsoft Office Suite, G-Suite, 3D Printing (Ultimaker Cura, Creality, Anycubic)

CERTIFICATIONS

Project Management Professional (PMP), PMI (*Application Accepted, Exam Scheduled*) *Jun 2026*

SOLIDWORKS Certified Professional (CSWP), Dassault Systèmes *Dec 2024*

Google Project Management Professional Certificate, Google, Coursera *Feb 2024*

IBM Project Management Specialization, IBM, Coursera *Jun 2024*

Lean Project Management Yellow Belt (LeanPM-YB), Lean PM Foundation *Aug 2025*

Lean Six Sigma White Belt (CSSC-LSSWB), Council for Six Sigma Certification *Aug 2025*

Autodesk CAD/CAM/CAE for Mechanical Engineering, Autodesk, Coursera *Jun 2024*

Collaborative Robotics in Industry Specialization, L&T EduTech, Coursera *Jun 2024*

ACHIEVEMENTS

Winner, Kambaii Bangabandhu Robotic Toolkit Design Competition, CRID Robotics Labs, USA *Jun 2022*

1st Runner-Up, Innovate, IEOM Society, AUST Student Chapter *Aug 2022*

Top-5 Industrial Projects Award, Mujib-100 Industrial Exhibition, IC4IR *Dec 2021*

1st Runner-Up, TechnoCAD, Innoventure 21, AUST Innovation & Design Club *Mar 2021*

LEADERSHIP & EXTRACURRICULAR

Vice President, AUST Innovation and Design Club *Nov 2022 – May 2023*

Design Lead, Mechanical Sub-Section, AUST Mars Rover Team *Sep 2021 – Sep 2022*

Hardware & Design Team Member, AUST Rocketry *Jan 2022 – Sep 2022*

Organizer & Head of Sponsor Team, Mindsparks 22 *Mar 2022 – Jul 2022*