Mohadeb Halder 917-736-1105 | <u>mohadebh@bu.edu</u> | NYC,NY

EDUCATION

Boston University Bachelor of Science, Mechanical Engineering				Boston, MA May 2027	
SKILLS					
Microsoft Office	•Matlab	•Arduino	•Python	•SolidWorks	
•Communication	•Teamwork	•Leadership	 Problem Solving 	 Organization 	
EXPERIENCE					
 Led 5 on-road sensor packs, review time b Automated 40 JIRA—updat 	and maintained CA and maintained CA by 30 %. 0 % of raw-data pre- ing Gantt charts to	ting 500 GB of LID AD models (SolidW eprocessing with Py keep the project 10	OAR/radar/camera data to Yorks) across 12 hardware thon and tracked milestor % ahead of schedule.	validate autonomous revisions, reducing nes in	
 President of Makers Led SolidWo Established A Directed desi for the univer 	pace Club Boston rks workshops for 5 gile workflow in T gn and construction sity STEM fair (20	n University 50+ members; guide rello to track 15 pro- n of a 5-DOF modul 0+ attendees) demo	ed CAD design and 3D pr ojects, achieving 100 % or lar robotic arm (Arduino-o onstrating precise object r	Jan2024-Pres inting of prototypes. n-time completion. controlled servos) nanipulation	
 Parametric Gearbox Designed a paralysis to id 	Design Team (So arametric gearbox i entify gear-mesh in	lidWorks) Boston n SolidWorks follo efficiencies and im	University wing ANSI standards; per proved transmission effici	Sep2024-Dec2024 formed motion ency by 15 %.	

• Delivered full CAD assembly with detailed engineering drawings, enabling seamless fabrication review.

PROJECTS

Room Temperature Monitor | EK 131, Boston University

- Developed an Arduino-based monitor to maintain 70–75 °F, featuring LED/buzzer alerts and real-time LCD display.
- Designed and 3D-printed an ABS enclosure with acrylic lid in Onshape, ensuring durability and ease of assembly.

Truss Bridge Design | Engineering Mechanics, Boston University

- Collaborated with a 5-member team to optimize truss geometry via MATLAB simulations, increasing load capacity by 54 % (31.4 oz → 48.5 oz).
- Achieved 39 % cost savings (\$184 vs. \$300 budget) by reinforcing critical members and eliminating zero-force elements.

Vibrating Pillowcase Alarm | EK 210, Boston University

- Led a 4-person team to design an Arduino-based vibrating alarm for the deaf/hard-of-hearing; achieved 100 % wake-up success (10 trials) with ±2 sec precision via RTC integration.
- Reduced costs by 65 % (\$69 vs. \$200 target) through optimized components and 3D-printed housing; designed detachable, washable electronics for improved user comfort.
- Awarded 1st Place in campus engineering competition for innovative assistive technology design.