

Alvee Ahmed
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EDUCATION

Singapore University of Technology and Design

May 14 to Present

- Bachelor of Engineering (Engineering Product Development). hons
- Relevant Modules: Fluid Mechanics, Circuits & Electronics, Material Science, Microelectronics, Design & Fabrication of Microelectromechanical Systems (MEMS), Theory & Applications of Robotics
- Expected date of completion: August 2017

WORK EXPERIENCE & DESIGN PROJECTS

Rolls-Royce Singapore Pte Ltd (Electrical Actuator for Aerospace Application, Final Year Project)

Jan 2017 to Present

- Designing the failsafe and the position feedback sensor circuits.
- Researching on motors and materials to make the actuator robust and able to withstand extreme conditions while meeting all the client needs.

Alert-Inform Device (A.I.D)

Jan 2017 to April 2017

- Programmed a graphical user interface (GUI) using python in Raspberry Pi.
- GUI receives wirelessly sent data from motion tracker to monitor activity and run application.
- Application designed to address patient compliance issue among physiotherapy patients.

JCS-Echigo Pte Ltd (PLC/HMI Programmer Intern)

May 2016 to Aug 2016

- Programmed Programmable Logic Controller (PLC) for use with automated machines.
- Designed 10 screens for Human Machine Interface to be used with client's SCADA system.
- Programmed an automatic report generator in python to be used with SCADA system for all machines.

Autonomous lawn mower

Jan 2016 to April 2016

- Programmed the motor controller to run the robot.
- Developed code for the 23cm diameter robot to maneuver 24,000 square feet using GPS and accelerometer.
- Conceptualized its trimming mechanism for efficiency and safety.

Exo-Arm for rehabilitation

Sep 2015 to Dec 2015

- Designed the arm for efficiency and comfort.
- Arm consists of an actuator capable of providing up to 500N force and lift up object of more than 10kg.
- Fabricated the arm and designed a circuit to work with the arm instead of a microcontroller.

LEADERSHIP & ACTIVITIES

G-Nomes (Bio-Engineering Club), Project Manager

Jan 16 to Present

- Plan upcoming activities for the club with 16 members
- Manage projects within the club
- Liaise with the Bio-Medical Engineering faculty to develop kits for the module

SUTDamage (Muay Thai), Vice President

Jan 16 to July 16

- Oversee all activities for the club with 24 members
- Conduct training with executive committee members for the club

MIT-SUTD 5th Row Leadership Programme, Participant

Jun 15 to Aug 15

- Attended leadership sessions along with MIT students
- Teamed up with MIT students to design and conduct a session on Creativity.

SKILLS

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|---------------------------------|---------------------------|---------------|
| • Programmable Logic Controller | • Human Machine Interface | • Python |
| • Arduino | • SolidWorks | • Illustrator |
| • SQL | • HTML & CSS | |

