ARAS SIDDIQUI

Automation Engineering

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Skills & Tools

- Proficient in programming PLC (Allen Bradley) using RSlogix 5000.
- Proficient in MATLAB(Simulink), VB.net,
 C++, Java, Assembly and LABVIEW.
- Designed 3D mechanical designs using Fusion 360, AutoCAD, and Solid works.
- Rapid prototyping using micro-controllers,
 3D printers and Laser cutters.
- Experienced in PCB design, milling and etching. PCB design using **EagleCAD**.
- Trained in machine shop tools like: Lathe,
 Bandsaw, Drill press and Vertical Saw.
- Proficient with MS office such as: Word, Excel, Power point, outlook and project.



Education

Bachelor of Technology - Automation | McMaster University, Hamilton, ON September 2016- December 2020

 Currently in level three of an integrated engineering technology, management, and CO-OP program.



Extra-Curricular

Welcome Week Representative

- Mentored and provided leadership to firstyear students, easing their transition to university.
- Facilitated planning and execution of **7** event.

B.Tech Representative

- Facilitated events and initiatives for students, alumni and B.Tech department.
- Secured funding of \$9,000 for composite 3D Printer.



Experience

MakerSpace Coordinator | McMaster University, Hamilton, ON.

May 2019 - April 2020

- Managed daily operations and supervised 2 student assistants.
- Trained students and staff on equipment including 3D printer laser cutter and PCB mill.
- Coordinated and led over 50 technical workshops.
- Promoted and led outreach to various department on campus. Increased usership **33%** from previous year.
- Ensured that safety procedures and the code of conduct for the space are observed.



- Co-founded transportation startup to run shuttle service in areas that are underserved by public transport in Hamilton.
- Won 1st place in HackTheCity Case competition.
- Secured partnership with Forge (McMaster Startup incubator).
- Designed UX/UI for mobile app in Adobe experience design.
- Reached out to over **100** people to determine target market.



Projects

Self-Balancing Robot

 Created using 6DOF accelerometer and Arduino UNO. Robot can maintain its vertical position, when tipped over its axis.

Mechanical Oscilloscope

 Using a function generator, speaker and laser pointer, a sine wave can be observed from the vibrations created by speaker.

Automated Car Parking System (SCADA Project)

An automated car parking solution that reduces parking space.
 System uses arduino & displays results on HMI(LABVIEW).

PWM and PID control using PLC

• Controlled analog output using PWM and PID and integrated system with an HMI.