ARAS SIDDIQUI

Automation Engineering

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Skills & Tools

- Proficient in MATLAB(Simulink), VB.net,
 C++, Java, Assembly and LABVIEW.
- Designed 3D models using Fusion 360, AutoCAD, Solid edge and Solid works.
- Rapid prototyping experience using Microcontrollers (Arduino, Raspberry Pi).
- PCB designing, milling and etching.
- 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 2021

• In an Integrated program by McMaster University and Mohawk Collage.



Extra-Curricular



- Increased community engagement by 60%.
 Secured funding of \$9,000 for B.Tech department.
- Facilitated communication between Alumni, students and W.Booth department.

Welcome Week Rep (2019)

- Mentored and provided leadership to firstyear students.
- Planned events catering it for 1st year students and their social development.

FIRST Robotics Team Captain (2015)

- Build robot in six weeks and competed with 200 teams across Ontario.
- Oversaw fabrication of chassis and the electrical wiring on robot.



Experience

MakerSpace Coordinator | McMaster University, Hamilton, ON

May 2019- April 2020

- Led **workshops** and trained students and staff on MakerSpace equipment including 3D printer, laser cutter and PCB mill.
- Worked independently and **managed** two student assistants.
- Wrote **technical** documentation and training manuals.
- Developed and updated online training modules.
- Promoted and **outreached** to various department on campus.
- Ensured that safety procedures and the code of conduct for the space were observed.

Co-Founder, UX Designer | Shuttlr (Transportation Start, Hamilton, ON

March 2017- September 2017

- 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).
- Used **Agile** Project Management to manage team of 3.
- 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.