Steven Kuo

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Github: https://github.com/stevenkuo711/portfolio

EDUCATION

University of Maryland College Park, MD
B.S. Mechanical Engineering Expected May 2026
University Honors Expected Citation May 2024

Dulaney High School Timonium, MD
High School Diploma, GPA 4.00/4.00 (unweighted), 5.81/6.00 (weighted) June 2022

SKILLS

CAD: SolidWorks, Autodesk Inventor, GrabCAD
Engineering: FDM 3D Printing, Bandsaw, Drill Press, Belt Sander
Programming: Java, C++, MATLAB

EXPERIENCE

Modeling a full FIRST Robotics Competition-style robot [SolidWorks] **Timonium, MD**
June 2022 - August 2022

- Designed a robot that can intake a cube and place it elsewhere at a variable height
- Practiced taking advantage of geometric constraints to reduce number of necessary dimensions in sketches, making them easier to read and edit
- Practiced constraining planes in assemblies of parts to reduce errors from editing parts

Dulaney FIRST Robotics Competition **Timonium, MD**
Team President **September 2018 - May 2022**

- Taught new members how to fabricate parts with metalworking tools and 3D printers
- Collaborated remotely through GrabCAD in a design team of 4 members to complete the initial design of the robot with Autodesk Inventor within 2 weeks
- Managed a team of 20 members to fabricate, and test the robot within 6 weeks
- Supervised the programming subteam to help with debugging as well as incorporating encoders and PID control loops for precise movement control
- Iterated on robot subsystems between competitions within 2 week timeframes
- Raised $5,000 via sponsorship outreach and presentations to operate the team

Dulaney VEX Robotics Competition **Timonium, MD**
Club Secretary, Team Co-Captain **September 2018 - May 2022**

- Used spreadsheets to keep track of part orders and spending
- Mentored teams within our organization to help troubleshoot and test designs
- Collaborated in a team of 5 to design, build, and test a 18” x 18” x 18” robot
- Utilized sensors like potentiometers and encoders to program autonomous routines and teleoperated controls that assisted the driver

AWARDS

Dulaney FIRST Robotics Competition

- Autonomous Award, Quality Award **2022**
- District Event Finalist, Quality Award, Industrial Design Award **2019**