# Matthew Choy

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#### PROJECTS

RC Airplane

June 2025 – August 2025

- Manufactured a RC Airplane out of cardboard and wiring electric components
- Soldered together the motor, ESC, and battery
- Mounted the electronics within the cardboard shell of the plane

Robotics Challenge

January 2024 – April 2024

- Designed a custom arm and storage system for a ball collecting robot
- Programmed the robot controller in C++ to move the robot
- Constructed the robot using VEX pieces along with the custom parts

Coin Sorter April 2023 – May 2023

- Created a coin sorter using Fusion 360's CAD software
- Assembled the sorter using laser cut cardboard and a motor with an off-balance weight
- Engineered a ramp with slots for the coins to fall into size specific holes

## Skills

CAD: Fusion 360, AutoCAD, SolidWorks

Languages: Java, C++, Python

Other: Debate, Model United Nations, First Aid

#### EXPERIENCE

## FIRST Tech Challenge | Mentor

January 2024 – May 2024

- Mentored younger students in designing their FTC robots to compete in an in-house tournament
- Attended weekly meetings to help construct drivetrains and robotic arms

Investment Team | Sector Analyst

October 2023 – March 2025

- Researched and analyzed companies to invest real money for my school's portfolio
- Used market data and statistical charts to justify our teams investments

Fundraising Team | Assistant Leader

September 2023 – January 2024

- Raised over \$5000 for SickKids and Princess Margaret through OTLF
- Fundraised through different methods including finding company sponsors and setting up charity stands

#### Tanzania Outreach | Student Volunteer

March 2024

- Constructed a classroom and washroom for a local school in the village of Karatu, Tanzania
- Lived and learned with the local students at the school

### Peer Tutor | Tutor

June 2021 – April 2023

- Tutored students who needed help with school assignments and homework
- Taught math and science to groups of 2-3 students

#### EDUCATION

## University of Waterloo

September 2025 – Present

Bachelor of Applied Science in Mechatronics Engineering

Crescent School

September 2019 – June 2025

Ontario Secondary School Diploma, Volunteer Hours: 128

Admission average: 97%

#### AWARDS

## Awards:

Honor Roll (6 Years), University of Waterloo President's Scholarship of Distinction, AP Scholar with Distinction