

Corin Gordon

518-901-6855 | cogordon@wpi.edu | [linkedin.com/in/corin-gordon](https://www.linkedin.com/in/corin-gordon) | github.com/gordoc19 | gordoc.dev

EDUCATION

Worcester Polytechnic Institute

Worcester, MA

Bachelor of Science in Robotics Engineering, Minor in Computer Science

Aug. 2024 – May 2028

- Relevant coursework : Mechanics for Robotics, System Programming, Sensing and Perception in Robotics, Machine Organization, Probability, Physics Mechanics, Physics E&M, Computer Networks, Fundamentals of Robot Kinematics, Intro to AI, Robot Navigation

EXPERIENCE

Combat Robotics Club

Aug. 2025 – Present

Worcester Polytechnic Institute

Worcester, MA

- **Pop:** Full Combat Beetleweight Multibot
 - * 2 wheel drive, Vertical Beater bar
 - * Competed as one of the two robots in Scrambled Eggs in NHRL, MassDestruction (MD), and WPI Open in 2026
 - * My first "beetleweight" combat robot, was very informative, and it's points of failure were crucial parts in making Peryl
- **Jeryl:** Plastic Antweight
 - * Symetrical, invertible, 2 wheel drive, vertical drum spinner
 - * Competed in four competitions so far; total record of 21 wins 11 losses and achieved second place in MD
- **Peryl:** Full Combat Beetleweight
 - * Four wheel drive, Vertical Beater bar
 - * Competed in April CMRC and May NHRL with a total record of 3-3
 - * Gained experience with CNC Lathing for pulleys, as well as taps, and manual milling for other custom parts

Programming Lead

Sep. 2021 – Aug. 2024

FIRST Tech Challenge (Team 6955)

Ballston Spa, NY

- Developed white balancing and color detection algorithm using OpenCV
- Co-Created path-finding algorithm (Stampede) for robots with Odometry pods, or Wheel Encoders to path to any location using linear curves
- Competed in the FIRST [World] Championship in 2022 (Freight Frenzy) and 2024 (Centerstage)
- Improved "Stampede" by adding support for SparkFun's Optical Tracking Odometry Sensor, April Tag Location Correction, and OpenCV vision for team prop detection

Lifeguard & Waterfront Instructor

June 2024 – Aug. 2024

READ Scout Reservation

Brant Lake, NY

- Re-certified in Basic Life Support, First Aid, and BSA Guard
- Cleaned and put away boats and safety equipment used by campers
- Led campers through a merit badge curriculum
- Eagle Scout

PROJECTS

Stampede | Java, Object Oriented Programming, Robot Kinematics

Sept. 2023 – Aug. 2024

- Developed a forward kinematics algorithm that makes use of ticks taken from either three encoded dead wheels and a 6 axis IMU or four encoded powered wheels
- Developed an inverse kinematics algorithm that is used without a trajectory generator due to a rigorous competition time frame and in favor of simplicity in use.
- Designed Stampede to be faster to calibrate and more beginner friendly than competitors

Ball Sorting Arm | MATLAB, Kinematics, Computer Vision, Trajectory Planning

Jan. 2026 – Mar. 2026

- Derived Forward Kinematics for a university-issued 4DOF robot arm using Denavit-Hartenberg frames, matrix multiplication, and symbolic functions.
- Solved for Inverse Kinematics using the geometric method and kinematic decoupling, input is the end-effector's position in 3D space and its orientation to create a finite number of solutions.
- Used MATLAB's USB camera capabilities to determine the location of colored balls on a checkerboard with a known origin and translation to the arm.

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, HTML/CSS, C, C++, MATLAB, LaTeX

Frameworks: React, Node.js, NextJS

Tools: Git, VS Code, Android Studio, IntelliJ, Onshape, Fusion360, Solidworks

Libraries: OpenCV, RoadRunner, April Tags

Technical Skills: CAD, CAM, Rapid Prototyping