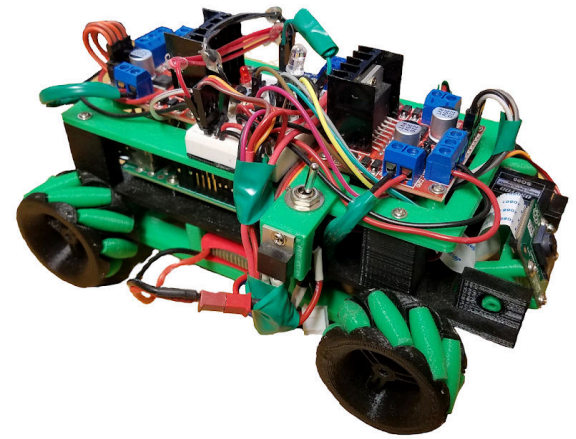


MiniMcGee V1 - 2018

github.com/superrm11/MiniMcGee

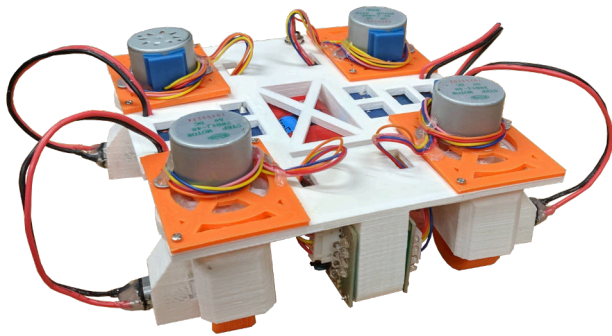
- Mecanum holonomic drive system
- Designed and assembled in Autodesk Inventor
- Programmed in Java, with Pi4J and OpenCV
- 3D Printed in PLA
- L298N motor drivers, N20 300RPM geared motors
- Powered by Raspberry Pi 3
- Controlled by bluetooth Xbox controller, or over WiFi with a Java Swing UI



MiniMcGee V2 - 2019

github.com/superrm11/MiniMcGeeV2

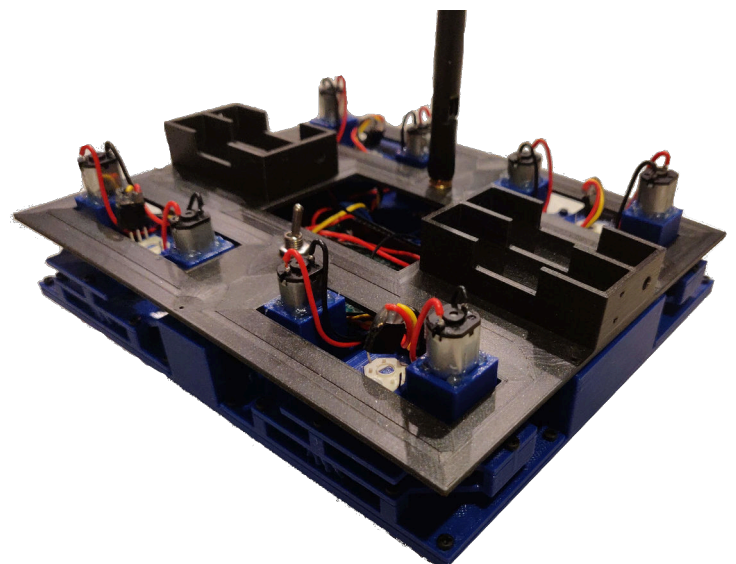
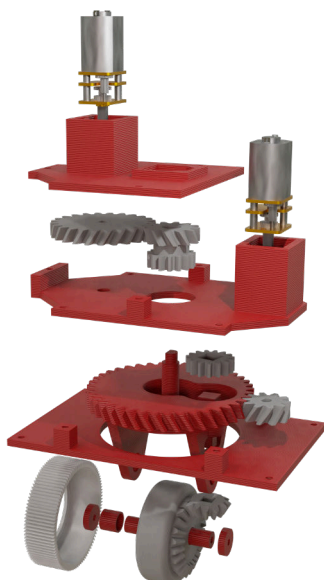
- Pseudo-swerve drive system
- Designed and assembled in Autodesk Inventor
- Programmed in Java, forked from MiniMcGeeV1
- 3D Printed in PLA
- N20 300RPM geared motors, stepper motors
- Powered by Raspberry Pi Zero W
- Controlled by bluetooth Xbox controller, or over WiFi with a Java Swing UI



MiniMcGee V3 (WIP) - 2021

github.com/superrm11/MiniMcGeeV3

- Fully continuous standard swerve drive system
- Designed and assembled in Autodesk Inventor, 3D printed in PETG
- Powered by ESP32 and programmed in C on FreeRTOS
- Uses continuous potentiometers and a 9-axis IMU over I2C
- Controlled over WiFi and Bluetooth, with a planned Android app



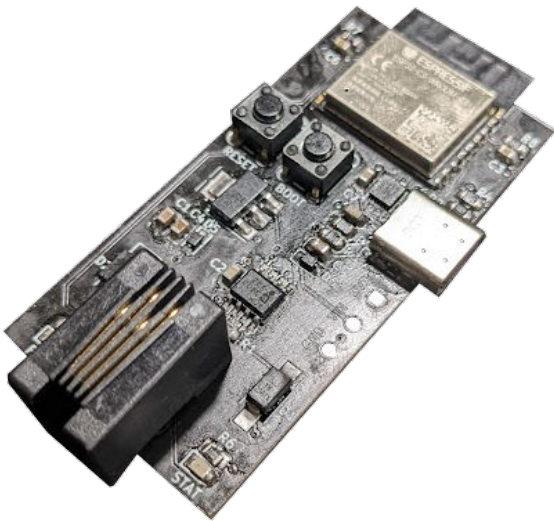
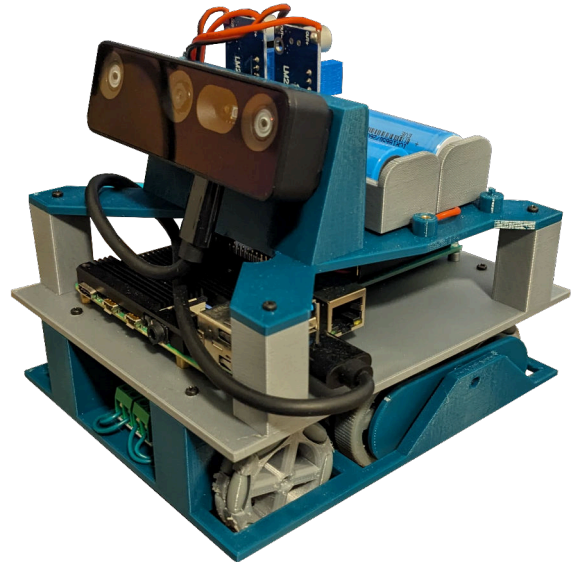
Project Board

Ryan McGee

MiniMcGee V4 (WIP) - 2023

github.com/superrm11/MiniMcGeeV4

- Designed in FreeCAD
- Custom 3D printed omni-wheels
- Powered by Raspberry Pi 4 and Pi Pico
- Runs ROS
- AI-enabled RGB+Depth camera for SLAM



VEX Debug Board (WIP) - 2022

github.com/superrm11/VexDebugBoard_PCB

- Connects to robots over RS-485
- Hosts foxglove.dev server and Wifi-AP
- Sends debug info over websocket
- Custom board designed in KiCAD
- Hand-assembled using reflow techniques
- Programmed in C using ESP-IDF

OpenCV Network Pipeline - 2016

github.com/superrm11/OpenCV_Projects

- Programmed in Java, client and server side
- Built for offboard processing, to save processing power on a robot
- Contains a GUI for easier configuration of the pipeline
- Allows multiple pipelines, multithreaded

