

TEAM BIOGRAPHY

The Self-Balancing team consists of Chad Paget, Mitch Sawyer, and Owen Anderberg. We have collaborated to develop a self-balancing robot that is open source, modular, and personable. Our goal is to make an appealing product for the electronics enthusiast and technology student.

We calculate the robot's angle by integrating recent IMU technology. The PID loop then manipulates this angle to control the stabilization motors.

A virtual companion should have a personality, so we included an autonomous mode, LCD screen, LED lighting, and speakers to allow interaction. The robot uses a Bluetooth module to communicate with multiple remote options including voice commands.

Chad Paget



Chad is an accomplished craftsman and programmer. His abilities to fabricate mechanical parts and port complex code make him an excellent choice for the team captain. Chad coalesces his programming knowledge with his familiarity of communication protocols to develop user-friendly motor control.

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Mitch Sawyer



Mitch's proficiencies vary from C programming to PCB circuit board design. He has extensive experience with Raspberry Pi, Arduino, and Altium Designer. His knowledge helps to integrate LED lighting, LCD screens and audio capabilities to provide the robot with a full personality package.

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Owen Anderberg



Owen is adept at problem solving and troubleshooting electronics. He has experience with distance sensors, infra-red, and a range of embedded devices. Owen's knowledge allows him to integrate multiple sensors to the robot so it can roam around autonomously.

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Our team is excited to demonstrate our idea of what a personal robot should be. The modular design allows for the individuality of a programmer to come through. We hope everyone will be impressed by the functionality and interactivity of our project.