Robot Builders Night Virtual for April 14th, 2026

Video

https://www.youtube.com/watch?v=kkQIZ0BFDyc

Housekeeping

- **DPRG Roborama 2026**: Scheduled for May 23rd at the Dallas Maker Space, featuring events such as Quick Trip, Line Following Advanced, Barrel Racing, Six Can, 4-Square, and Sumo.
- **Line Following Parade:** Dallas College - Eastfield held the line-following parade. Mark R gave an update on his & Doug's performance.

Project Presentations

Tom Crawford's Robot Demo

- Tom demonstrated his robot, which experienced traction issues on slick surfaces. He replaced the battery system and calibrated servos to improve performance.
- Discussed the challenges of servo calibration due to inconsistencies in the servo's mechanical setup and the need for custom calibration software.
- Mentioned the complexity due to varying servo responses and the need for additional sensor integration for better control.

Mike Williamson's Barrel Racing Robot

- Mike detailed improvements to his barrel-racing robot, focusing on speed and navigation. He encountered challenges with overshooting due to latency in ROS (Robot Operating System) and the robot's sensors.
- His plan involves refining the controller integration to synchronize sensor data more effectively.

Collaborative Projects and Discussions

- **Robomow Automation Project**: Paul Bouchier introduced an exciting new initiative to develop an autonomous lawn mower using repurposed Robomow units with RTK GPS integration.
    - The project aims to replace existing electronics with a ROS-based system, leveraging team expertise in hardware and software development.

    - Plans to use a Raspberry Pi 5 for AI integration and developing a Docker-based simulation environment.

- **Potential of Open Mower Platforms**: There was a discussion on existing open-source lawn mower projects like Open Mower, comparing their approaches and potential integration.

Conclusions and Insights

- The session highlighted the vibrant community spirit with strong interest in robotic competitions and collaborative projects.
- Technical presentations emphasized the importance of precise calibration and system integration in robotics.
- DPRG continues to foster innovation by leveraging shared knowledge and skills among members.

Referenced Links

- Pimoroni Optical Tracking SPI Breakout - Provided by Pat Caron, for tracking enhancements in robotic applications.