

DPRG RBNV AI Generated Meeting Summary – Feb 4, 2025

- **Ray** presented his work on a parallax laser camera distance detection system using an OpenMV H7 camera, utilizing black and white blobs to calculate distance.
- **Bruce** discussed using the Aider AI program to develop and update his Compass.py code, and using Perplexity AI to solve issues with Python packages within a ROS2 Jazzy node.
- **Elm and David** from the FTC team **Iron Giant** showcased their FTC robot, which can autonomously place a brick and sort blocks using a color sensor. They are using distance sensors for accuracy and code in Java, which is part of their high school curriculum.
- **Ted** explored differential GPS with two M10s GPS units, but found that averaging the readings did not improve results as the units did not drift together as expected.
- **Tom** updated the group on his cone detection camera research, reviewed different cameras, and discussed the **OpenBot** project, which uses smartphones on a cheap robot platform. He also demonstrated his Grove Vision AI unit's ability to detect traffic cones. The OpenBot project can be found at <https://openbot.org/>, and a specific robot design at <https://www.zdnet.com/home-and-office/smart-home/dandys-new-weed-killing-lawn-robot-will-save-your-back/>.
- **Mike** shared his project to rotate a painting for an art exhibit, using a worm gear and gear motor with an encoder to control rotation.
- **Taylor** presented his idea for a metal-detecting robot with applications in cable location and military mine detection, asking for feedback. Raj shared a link to a defense robot: <https://www.crddefensegroup.com/>.
- **Pat** demonstrated his line-following robot using an OpenMV M4 v2 camera, working on the algorithm and planning to test on a paper track.
- **Michael** updated the group on his Claw Machine motor drive, now using stepper motors to avoid issues with the joystick, and using two stepper motors on one belt.
- **John K** sought information about a robot called **ISOBOT**, found on Facebook. Tom provided a link to a site with more information: https://www.facebook.com/isobot.uthm/?profile_tab_item_selected=photos&_rdr, and another link was posted by ed mart: <https://shopee.com.my/Elvira-ISOBOT-ELV04-Robot-Car-Kit-i.236910916.28402758265>.