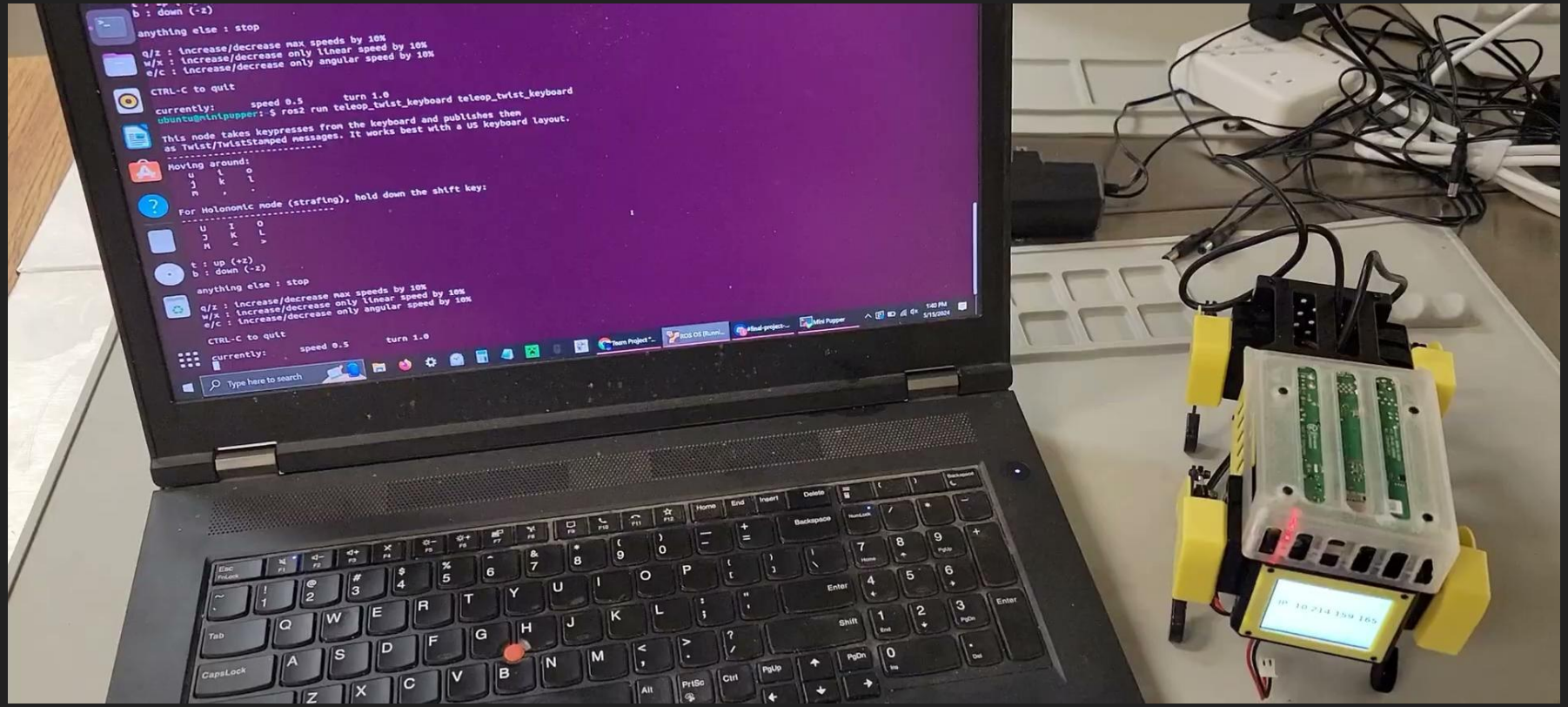
Project Update (PupMappers) SLAM

John Burns
Daniel Pavlosek
Tim Gonzales
Hendy Kurniawan

Central Goal

- Map a room by incorporating SLAM.
  - Simultaneous Localization and Mapping is a widely used and respected technique in robotics.
  - SLAM allows for a high degree of flexibility in sensor inputs.
  - ROS Twist commands allow for more accurate movement of the pupper.
  - Orienting the robot to obstacles and boundaries in the room would allow it to better navigate and achieve other goals.

Current Demonstration - ROS Keyboard Control



Current Challenges/Tasks

- Robot Not Booting
- Apply individual artifacts to team project
- Integrate Lidar
- Perform mapping tests

Reflection

- Fixed Mangdang ROS image
- Found Keyboard.py File
- Simulations are working
- Individual artifacts used to build towards the final project
    - Dancing, Turning, and Moving - Sophisticated control of pupper movement in ROS

Mid Project Success Criteria

- Simulation Working
- Lidar Integrated
- RViz Actual Room SLAM images produced

End Project Success Criteria

- Actively Explored a Real Room
- Produced Reasonably Full and Accurate Map

Current Demonstration - Individual