

6645A Odometry implementation

Today I implemented the okapi odometry library into our robot's autonomous code. I setup a odom chassis using our left and right tracking wheels. I was not able to make use of our attached gyroscope. I measured out the the wheel dimensions and tread, and have used them for the setup of the okapi chassis code. I have also tuned the PID using our current 600 RPM 4.125" omni wheel setup with a capped 100 RPM max speed. I have tested the reliability of the odometry and it lands within about an inch and 5 degrees of what it is told to move/turn to. This slight variance is to be expected and is tracked in the odometry, and can be accounted for in later autonomous route revision using move to commands. I have attached our current okapi chassis configuration on the following page.