

one_stationary_imu_yaw_vel Experiment Report

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This is a summary of the data from the one_stationary_imu_yaw_vel experiment.

The runtime of this experiment was 0 hours, 3 minutes, and 59.4 seconds.

The filter configuration for this experiment was as follows:

- Continuous filter:
 - odom: x_vel, y_vel, yaw, yaw_vel
 - imu: yaw_vel
- Discrete filter:
 - odom: x_vel, y_vel, yaw_vel
 - imu: yaw_vel

Shown below is the summary of each filter's error for both x and y coordinates, and also the error in total distance.

```
summary(t1_continuous$x_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -2.297e-07  4.916e-04  9.845e-04  9.845e-04  1.477e-03  1.970e-03
```

```
summary(t1_continuous$y_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -9.450e-11  9.041e-08  3.234e-07  3.658e-07  5.976e-07  9.522e-07
```

```
summary(t1_continuous$dist_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
##  2.297e-07  4.916e-04  9.845e-04  9.845e-04  1.477e-03  1.970e-03
```

```
summary(t1_discrete$x_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -2.297e-07  4.916e-04  9.845e-04  9.845e-04  1.477e-03  1.970e-03
```

```
summary(t1_discrete$y_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -9.450e-11  9.041e-08  3.234e-07  3.658e-07  5.975e-07  9.521e-07
```

```
summary(t1_discrete$dist_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
##  2.297e-07  4.916e-04  9.845e-04  9.845e-04  1.477e-03  1.970e-03
```