

# one\_stationary\_imu\_both Experiment Report

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This is a summary of the data from the one\_stationary\_imu\_both experiment.

The runtime of this experiment was 0 hours, 3 minutes, and 59.5 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.
## -5.631e-07  4.910e-04  9.840e-04  9.841e-04  1.477e-03  1.970e-03
```

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

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -1.252e-10  7.911e-08  2.284e-07  3.190e-07  5.298e-07  9.322e-07
```

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

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
##  2.526e-07  4.910e-04  9.840e-04  9.841e-04  1.477e-03  1.970e-03
```

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

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -5.631e-07  4.910e-04  9.840e-04  9.841e-04  1.477e-03  1.970e-03
```

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

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -1.252e-10  7.911e-08  2.284e-07  3.190e-07  5.298e-07  9.322e-07
```

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

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
##  2.526e-07  4.910e-04  9.840e-04  9.841e-04  1.477e-03  1.970e-03
```