

one_mobile_imu_yaw_vel Turtlebot 1 Report

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This is a summary of the data from the one_mobile_imu_yaw_vel experiment, Turtlebot #1.

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

The total number of external pose measurements recieved by the robot during this time was 0 which means poses were received at an average of 0 poses per second.

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

```
summary(continuous$x_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -1.511e-02  1.404e-05  5.855e-03  6.201e-03  1.267e-02  3.291e-02
```

```
summary(continuous$y_error)
```

```
##      Min.  1st Qu.  Median    Mean 3rd Qu.    Max.
## -0.09723 -0.06197 -0.03752 -0.04228 -0.01944  0.01923
```

```
summary(continuous$dist_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## 8.000e-08 1.966e-02 4.108e-02 4.436e-02 6.383e-02 1.011e-01
```

```
summary(discrete$x_error)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## -3.2670 -1.2980  0.7949  0.2594  1.1330  3.8400
```

```
summary(discrete$y_error)
```

```
##      Min.    1st Qu.    Median      Mean   3rd Qu.      Max.
## -4.917000 -2.410000  0.000005 -0.101500  1.761000  4.373000
```

```
summary(discrete$dist_error)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.000   2.297   2.777   3.046   4.130   5.183
```