

two_mobile_restricted Turtlebot 2 Report

Matthew Swartwout

June 24, 2016

This is a summary of the data from the two_mobile_restricted experiment, Turtlebot #2.

The runtime of this experiment was 1 hours, 59 minutes, and 3658.9 seconds.

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.
## -0.01552  0.01226  0.02303  0.02297  0.03377  0.04445
```

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

```
##      Min.   1st Qu.   Median     Mean  3rd Qu.     Max.
## -0.02076  0.01074  0.02080  0.02087  0.03102  0.04131
```

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

```
##      Min.   1st Qu.   Median     Mean  3rd Qu.     Max.
## 2.700e-07 1.636e-02 3.103e-02 3.108e-02 4.586e-02 6.068e-02
```

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

```
##      Min.   1st Qu.   Median     Mean  3rd Qu.     Max.
## -0.01428  0.01123  0.02200  0.02195  0.03275  0.04342
```

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

```
##      Min.   1st Qu.   Median     Mean  3rd Qu.     Max.
## -0.019580 0.008635 0.018690 0.018770 0.028910 0.039210
```

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

```
##      Min.   1st Qu.   Median     Mean  3rd Qu.     Max.
## 2.700e-07 1.423e-02 2.887e-02 2.898e-02 4.368e-02 5.850e-02
```