two_mobile Turtlebot 2 Report

Matthew Swartwout

June 24, 2016

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

The runtime of this experiment was 1 hours, 59 minutes, and 3658.8 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.
## -0.111000 -0.108600 -0.106300 -0.063580  0.004042  0.132900
```

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

```
##      Min.  1st Qu.    Median      Mean  3rd Qu.      Max.
## -0.15720 -0.13840 -0.12380 -0.08847 -0.01562  0.09849
```

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

```
##      Min.   1st Qu.    Median      Mean   3rd Qu.      Max.
## 2.000e-08 8.015e-02 1.650e-01 1.345e-01 1.747e-01 1.853e-01
```

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

```
##      Min.  1st Qu.    Median      Mean  3rd Qu.      Max.
## -0.24810 -0.24570 -0.24340 -0.16690 -0.02252  0.08327
```

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

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## -0.4179 -0.4033 -0.3887 -0.2856 -0.1697  0.1224
```

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

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.0000  0.1701  0.4602  0.3467  0.4714  0.4828
```