## one\_stationary Turtlebot 1 Report

## Matthew Swartwout June 24, 2016

This is a summary of the data from the one\_stationary experiment, Turtlebot #1.

The runtime of this experiment was 1 hours, 59 minutes, and 3659.4 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(t1_continuous$x_error)
##
                 1st Qu.
                              Median
                                           Mean
                                                    3rd Qu.
                                                                  Max.
## -2.400e-07 1.483e-02 2.965e-02
                                      2.965e-02
                                                 4.448e-02
                                                             5.930e-02
summary(t1_continuous$y_error)
         Min.
                 1st Qu.
                              Median
                                           Mean
                                                    3rd Qu.
                                                                  Max.
               3.823e-05 1.509e-04
## -1.000e-10
                                      2.047e-04
                                                 3.449e-04
                                                             6.213e-04
summary(t1_continuous$dist_error)
##
        Min.
               1st Qu.
                           Median
                                       Mean
                                              3rd Qu.
                                                            Max.
## 2.400e-07 1.483e-02 2.965e-02 2.965e-02 4.448e-02 5.931e-02
summary(t1_discrete$x_error)
         Min.
                 1st Qu.
                              Median
                                                    3rd Qu.
                                           Mean
                                                                  Max.
## -2.400e-07
               1.483e-02
                          2.965e-02
                                      2.965e-02
                                                 4.448e-02
                                                             5.930e-02
summary(t1_discrete$y_error)
         Min.
                              Median
                                           Mean
                                                    3rd Qu.
## -1.000e-10
               3.823e-05
                          1.509e-04
                                      2.047e-04
                                                  3.449e-04
                                                             6.213e-04
summary(t1_discrete$dist_error)
##
        Min.
               1st Qu.
                           Median
                                       Mean
                                              3rd Qu.
                                                            Max.
## 2.400e-07 1.483e-02 2.965e-02 2.965e-02 4.448e-02 5.931e-02
```