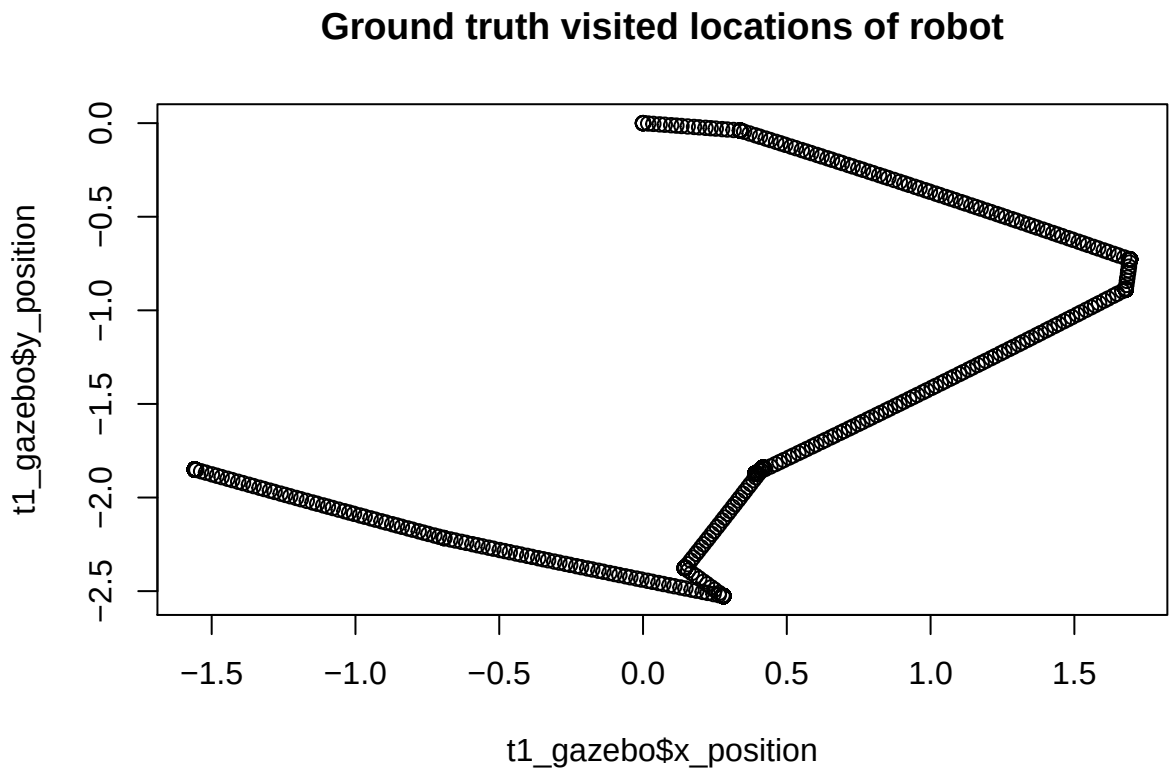
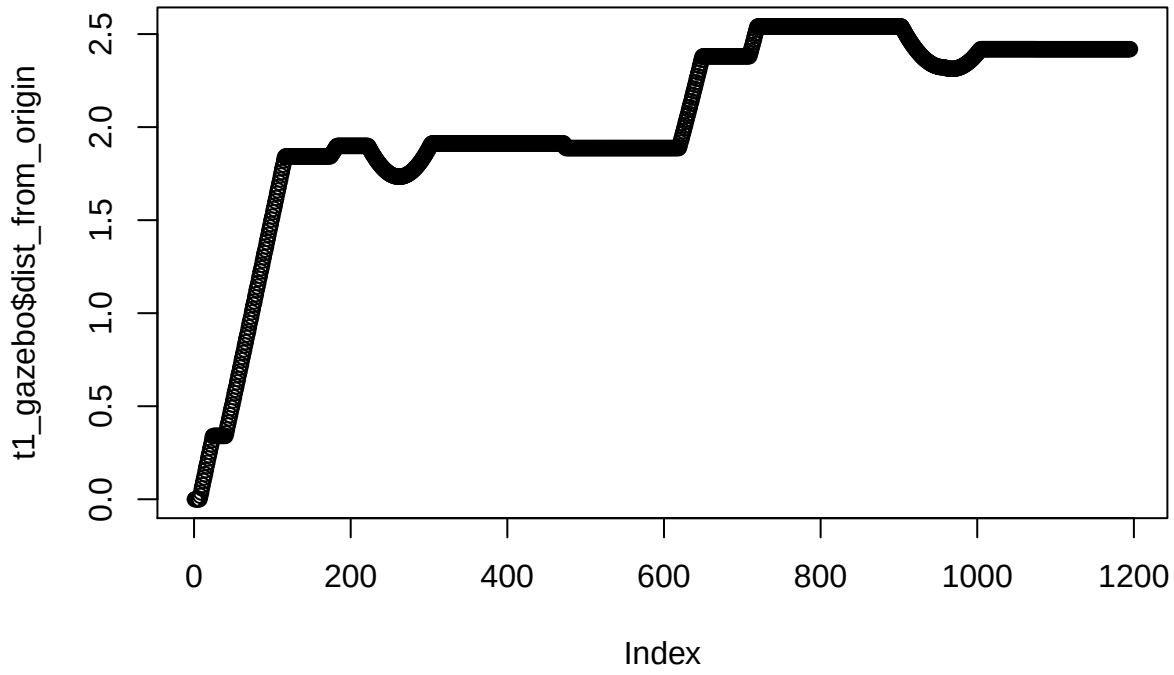
```
t1_gazebo <- read.csv(paste(params$data_dir, params$experiment_name, "turtlebot1_gazebo_odometry_filtere
t1_continuous <- read.csv(paste(params$data_dir, params$experiment_name, "turtlebot1_continuous_odometry
t1_discrete <- read.csv(paste(params$data_dir, params$experiment_name, "turtlebot1_discrete_odometry_fi
t1_external_count <- read.csv(paste(params$data_dir, params$experiment_name, "turtlebot1_external_pose_

t1_gazebo$dist_from_origin <- sqrt(t1_gazebo$x_position ^ 2 + t1_gazebo$y_position ^ 2)

t1_discrete$x_error <- t1_gazebo$x_position - t1_discrete$x_position
t1_discrete$y_error <- t1_gazebo$y_position - t1_discrete$y_position
t1_discrete$dist_error <- sqrt(t1_discrete$x_error ^ 2 + t1_discrete$y_error ^ 2)

t1_continuous$x_error <- t1_gazebo$x_position - t1_continuous$x_position
t1_continuous$y_error <- t1_gazebo$y_position - t1_continuous$y_position
t1_continuous$dist_error <- sqrt(t1_continuous$x_error ^ 2 + t1_continuous$y_error ^ 2)

#pdf(paste0(params$experiment_name, "_ground_truth_locations.pdf"))
plot(t1_gazebo$x_position, t1_gazebo$y_position)
title("Ground truth visited locations of robot")
```




```
#dev.off()

#pdf(paste0(params$experiment_name, "_dist_from_origin.pdf"))
plot(t1_gazebo$dist_from_origin)
title("Distance from origin vs. time")
```




```
#dev.off()

summary(t1_continuous$x_error)
```

```
##       Min.    1st Qu.     Median       Mean    3rd Qu.       Max.
## -0.0346700 -0.0015640  0.0000044 -0.0004057  0.0007064  0.0485000
```

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

```
##       Min.    1st Qu.     Median       Mean    3rd Qu.       Max.
## -3.795e-02 -3.055e-03 -8.960e-06 -1.112e-03  8.983e-04  2.355e-02
```

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

```
##      Min.   1st Qu.    Median      Mean   3rd Qu.      Max.
## 5.400e-07 1.673e-04 2.629e-03 6.783e-03 1.107e-02 4.881e-02
```

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

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## -6.3020 -2.9990 -2.2920 -2.7290 -2.2040  0.2633
```

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

```
##     Min.  1st Qu.   Median     Mean  3rd Qu.     Max.
## -1.37300 -0.58980 -0.03011 -0.23530  0.08734  0.75720
```

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

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   0.000   2.207   2.295   2.866   3.182   6.347
```