

five__mobile__restricted Turtlebot 5 Report

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```
## Warning in t1_gazebo$x_position - t1_discrete$x_position: longer object
## length is not a multiple of shorter object length

## Warning in t1_gazebo$y_position - t1_discrete$y_position: longer object
## length is not a multiple of shorter object length

## Warning in t1_gazebo$x_position - t1_continuous$x_position: longer object
## length is not a multiple of shorter object length

## Warning in t1_gazebo$y_position - t1_continuous$y_position: longer object
## length is not a multiple of shorter object length
```

This is a summary of the data from the five__mobile__restricted experiment, Turtlebot #5.

The runtime of this experiment was 0 hours, 41 minutes, and 48.3 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.
## -0.031920 -0.018340 -0.013640 -0.009703 -0.009108  2.143000
```

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

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
## -2.27300  0.01591  0.01789  0.01676  0.01983  0.08244
```

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

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
## 0.0000144 0.0196000 0.0236800 0.0258900 0.0280100 3.1240000
```

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

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
## -0.03250  0.06632  0.07107  0.06505  0.07582  2.40500
```

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

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
## -2.1020  0.2695  0.2716  0.2226  0.2736  0.3062
```

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

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.     Max.
## 0.000014 0.280700 0.281400 0.241800 0.282200 3.195000
```