

The background features a dark blue gradient with faint, light blue concentric circles and degree markings (40, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260) on the left side, suggesting a circular or rotational theme.

GPS MEASUREMENT EXPERIMENTS

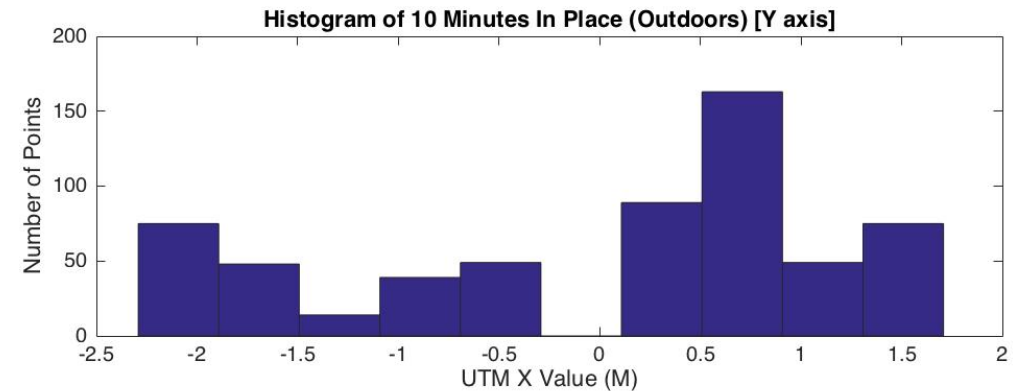
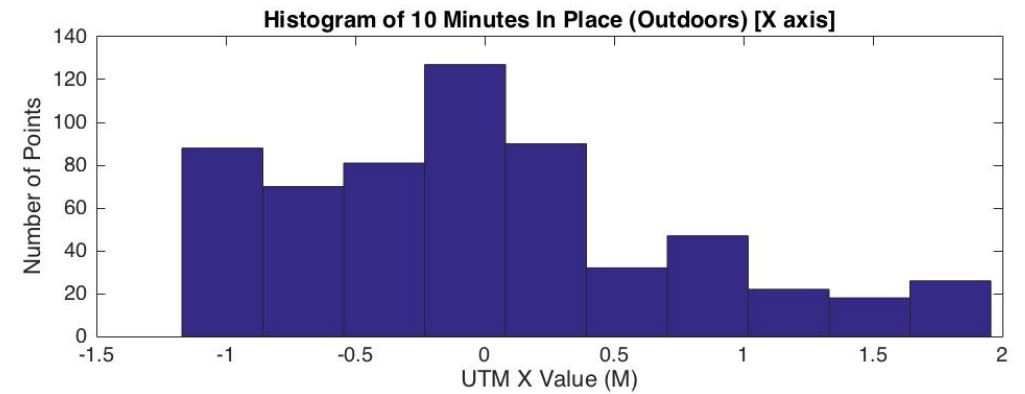
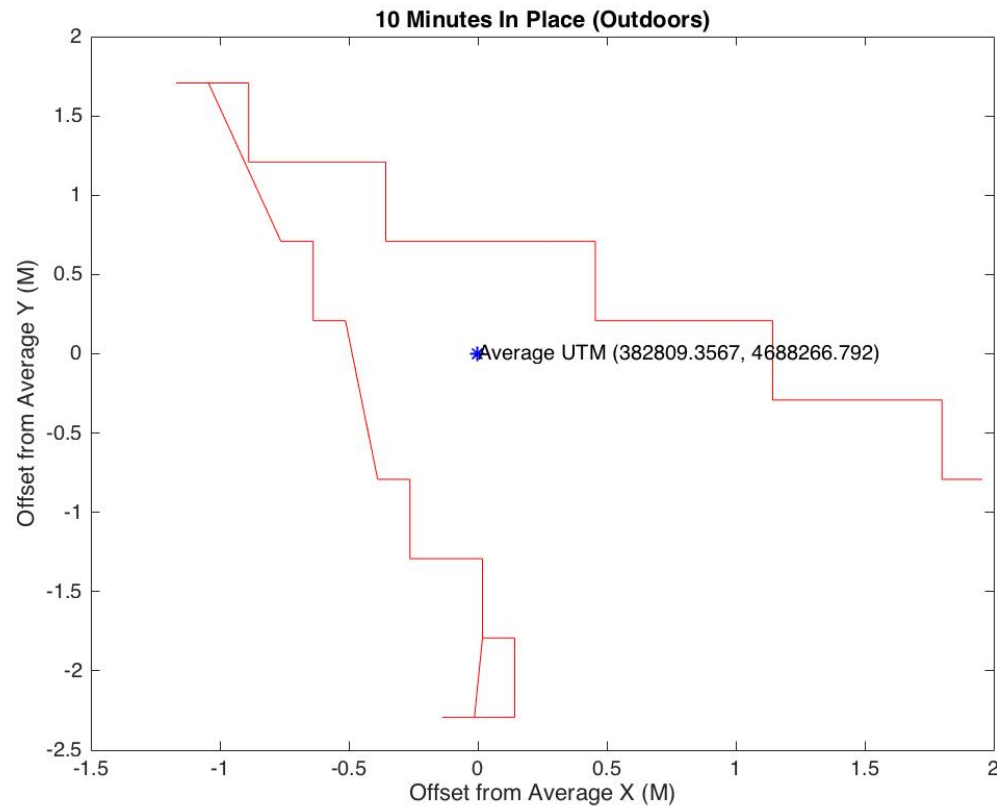
ANDREW TU

EECE 5698 ROBOTICS SENSING AND NAVIGATION

NORTHEASTERN UNIVERSITY

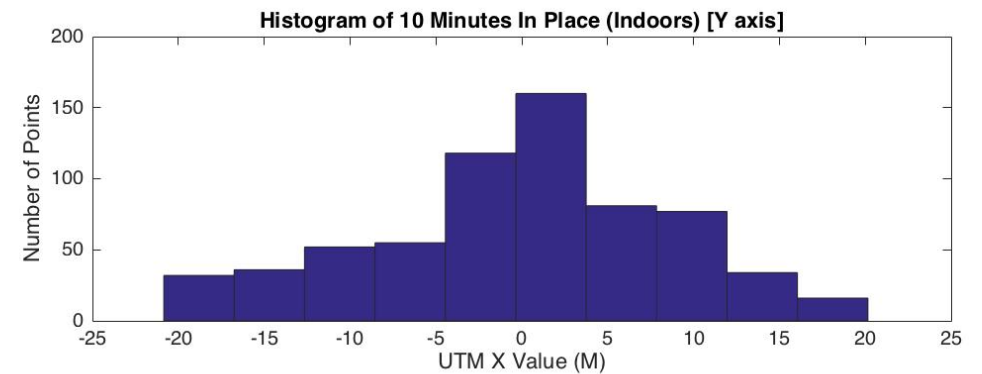
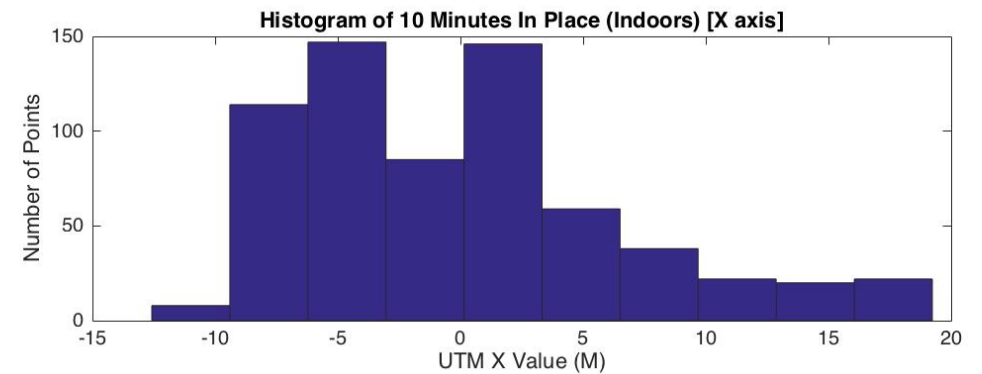
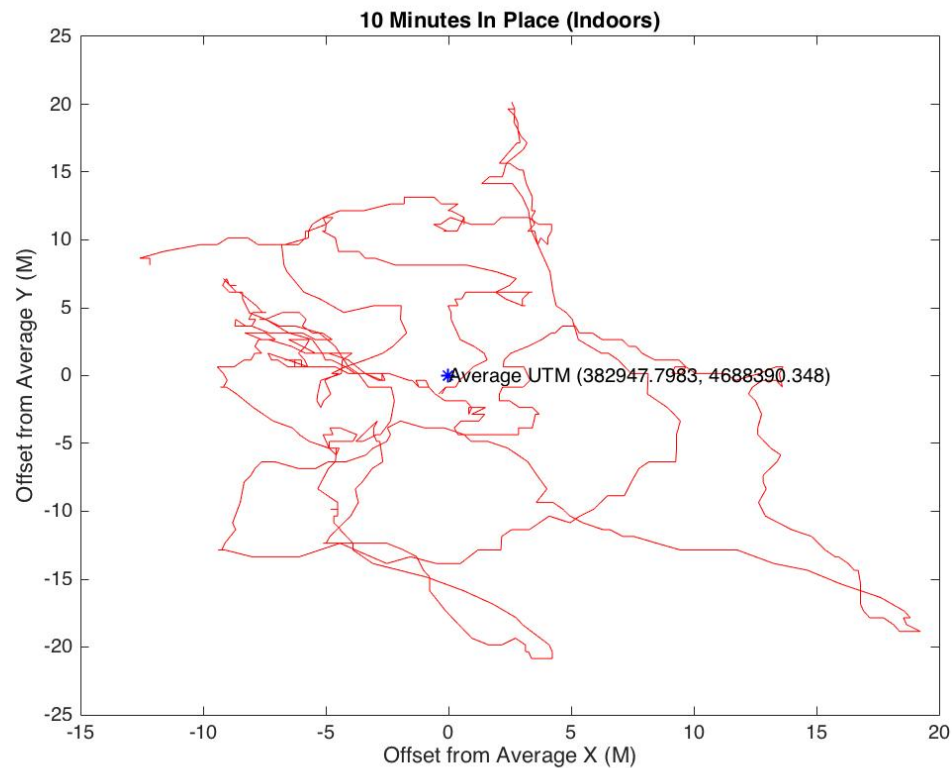
10 MIN IN PLACE OUTDOORS

- +/- 3 meters of accuracy when outside
- Errors fall where there were buildings, i.e. standing between Eagan and Dana, buildings are North West and South East. GPS errors are in same directions!



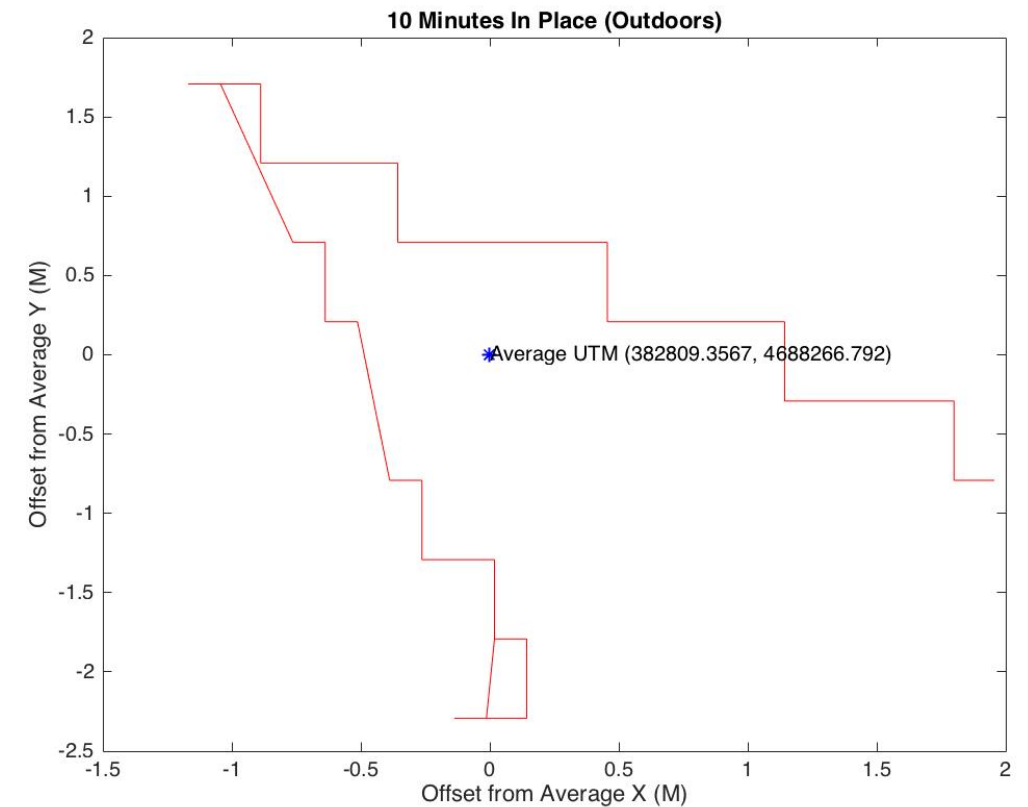
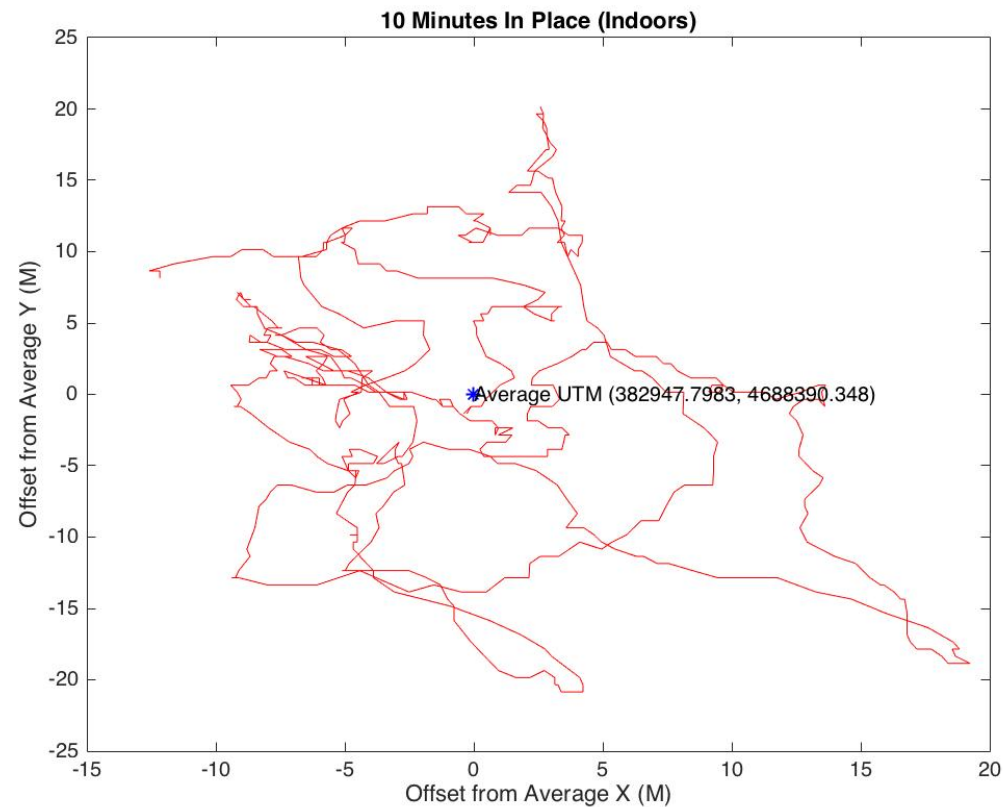
10 MIN IN PLACE INDOORS

- Variation N/S direction is normally distributed
- Variation E/W is skewed toward the West
- +/- 20 m of error when inside in any direction

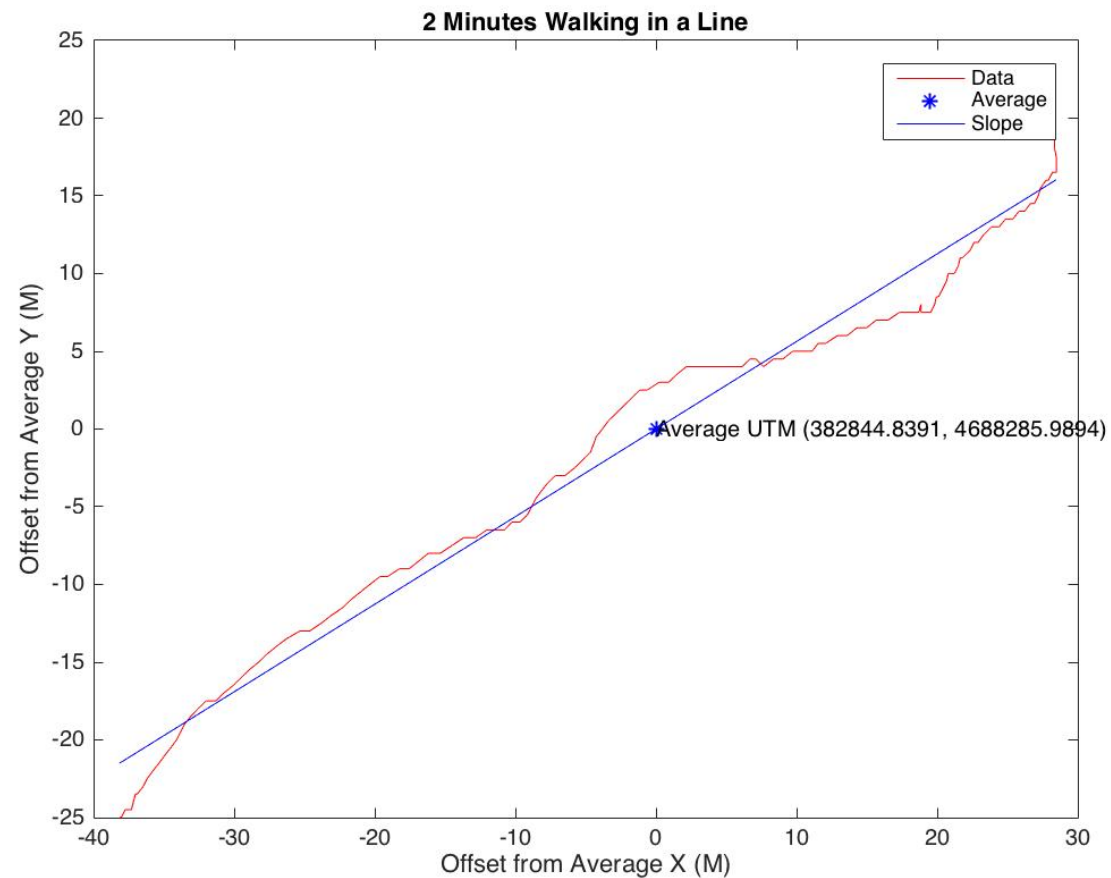


SIGNIFICANTLY GREATER VARIATION INDOORS

Error is significantly greater outside
than inside.
Data is more skewed outdoors while
more circular indoors



2 MIN WALKING IN A LINE



- Best fit line using least squares regression

- R^2 Value of .976

- P Value of $3.07e-114$