



#TEAMRUNTASTIC

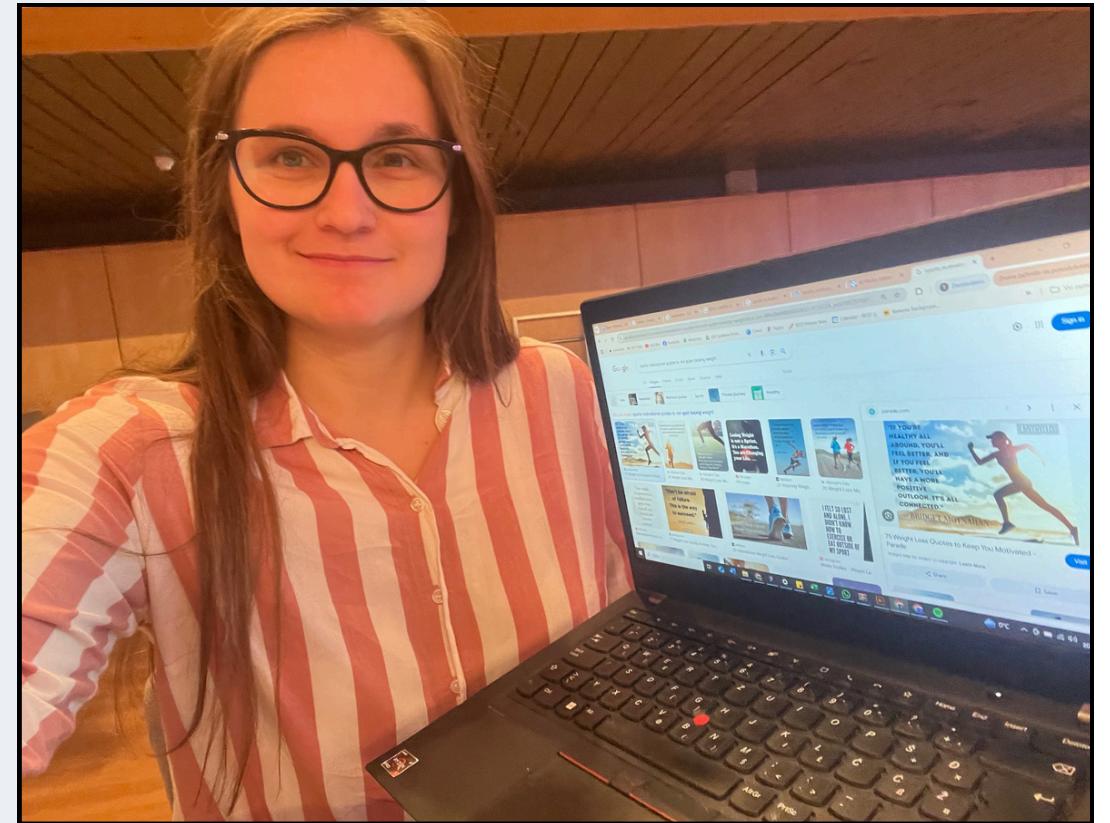
# MATLAB MOBILE

Collecting & Analysing Real Data





Failed athlet



Coding mastermind #1



Coding mastermind #2



Athlet



# INTRODUCTION

**AIM: Collecting and analysing live data  
using MATLAB**

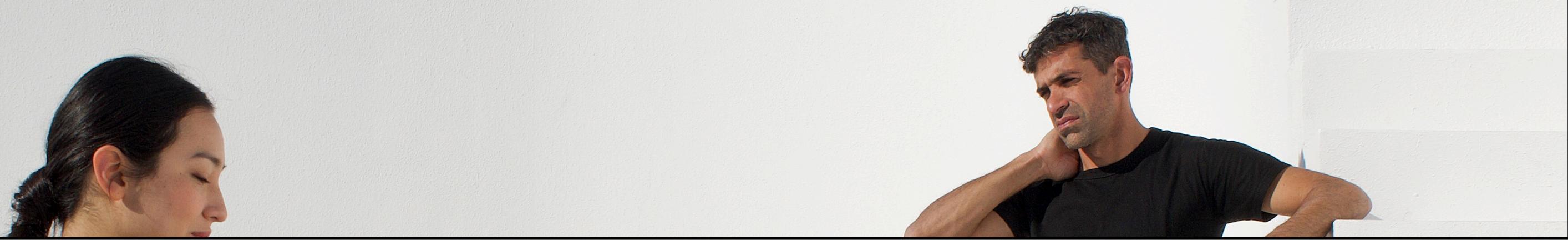
Comapresatipon of the initial\* and moving state.

Observed parameters:

- Speed of movement (walking, running)
- Location and hight of movement (plane, climbing stairs)
- Shapes of movement (straight line, circle, square)

\*Date in idle state





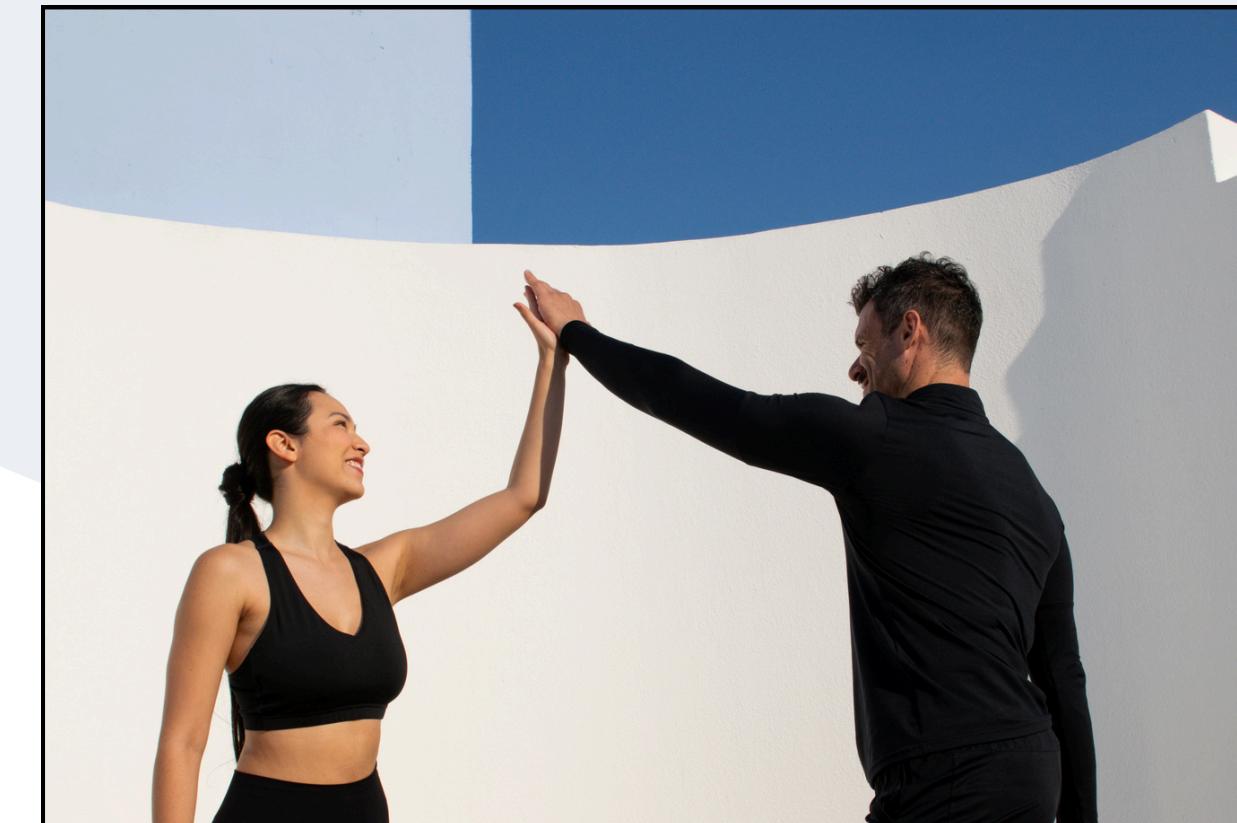
# RESULTS



# INITIAL STATE

- One phone was left on the table the whole time, while to other one was in movement.
- While observing data from the phone in idle state, we kind of predicted the automatic mistake the sistem might have from the start.
- Conslution: The mistake was really big and the system showed us movment in distance and image

The idea was to GA paint, to draw shapes and pictures. To d



# LOCATION AND SHAPE



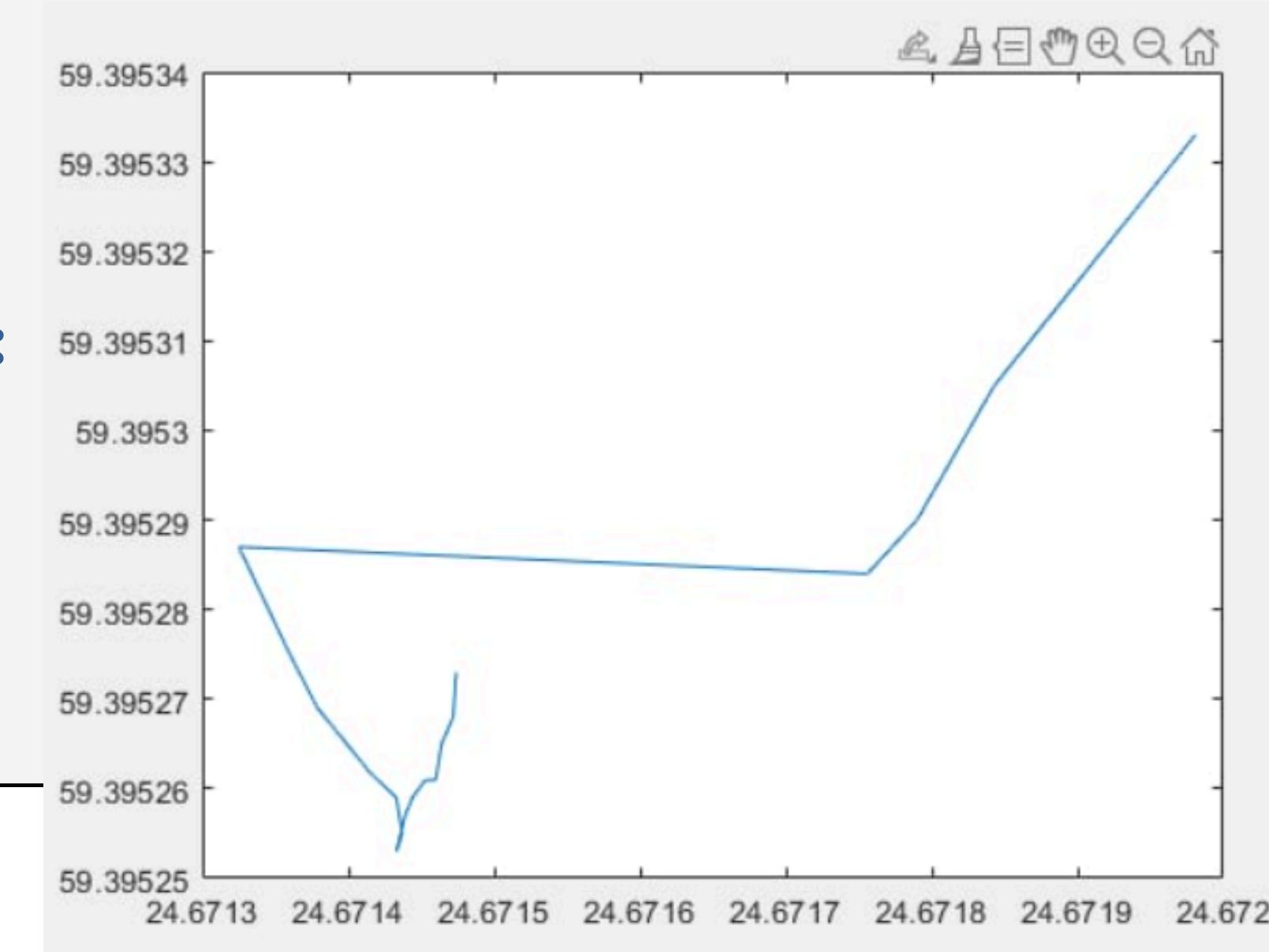
We wanted to observe the path we have taken, but the location observations were very inaccurate

Usual mismatch was more than 10 meters, so the path was very different from the actual path taken

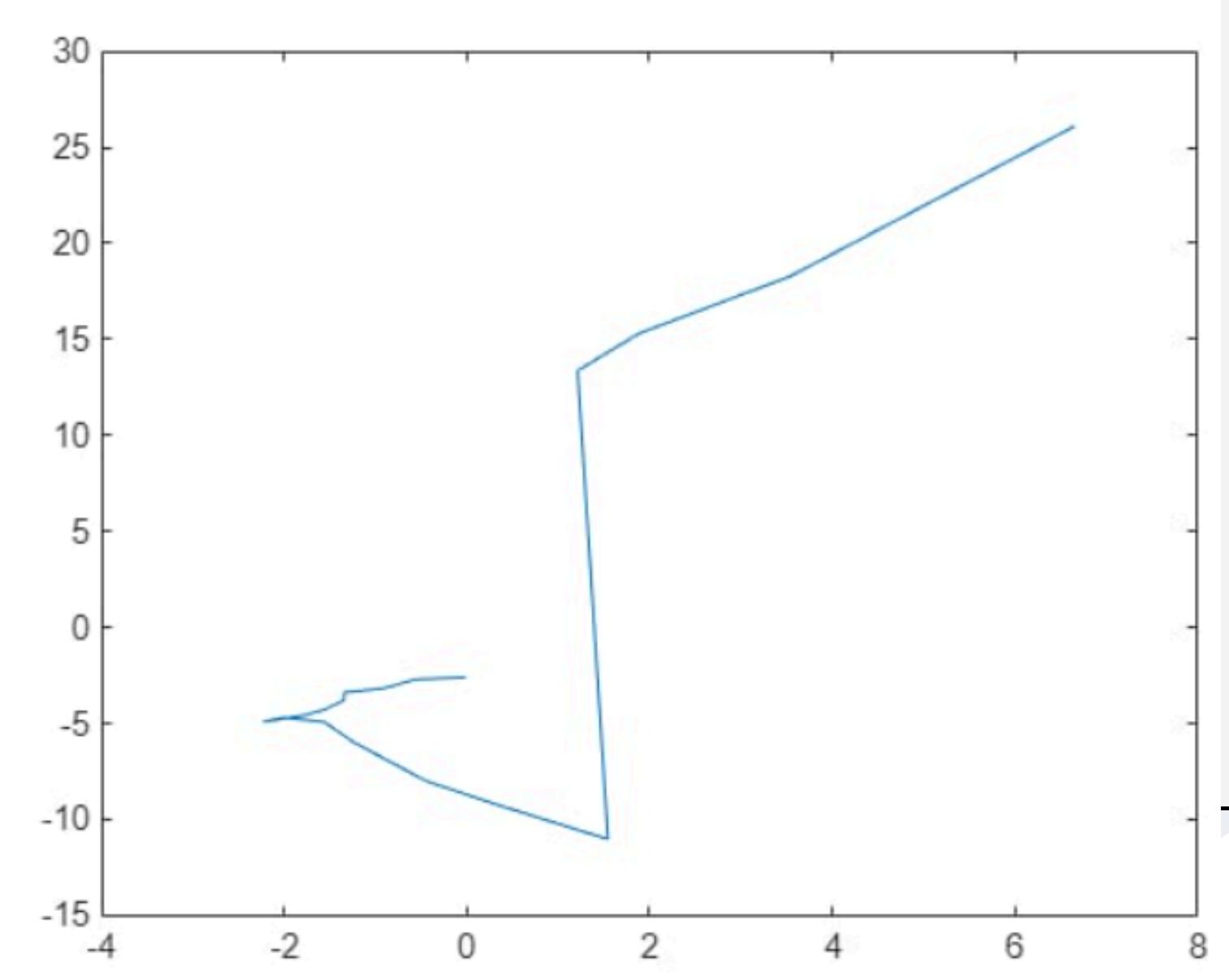
Position sampling was very low



# CIRCLE

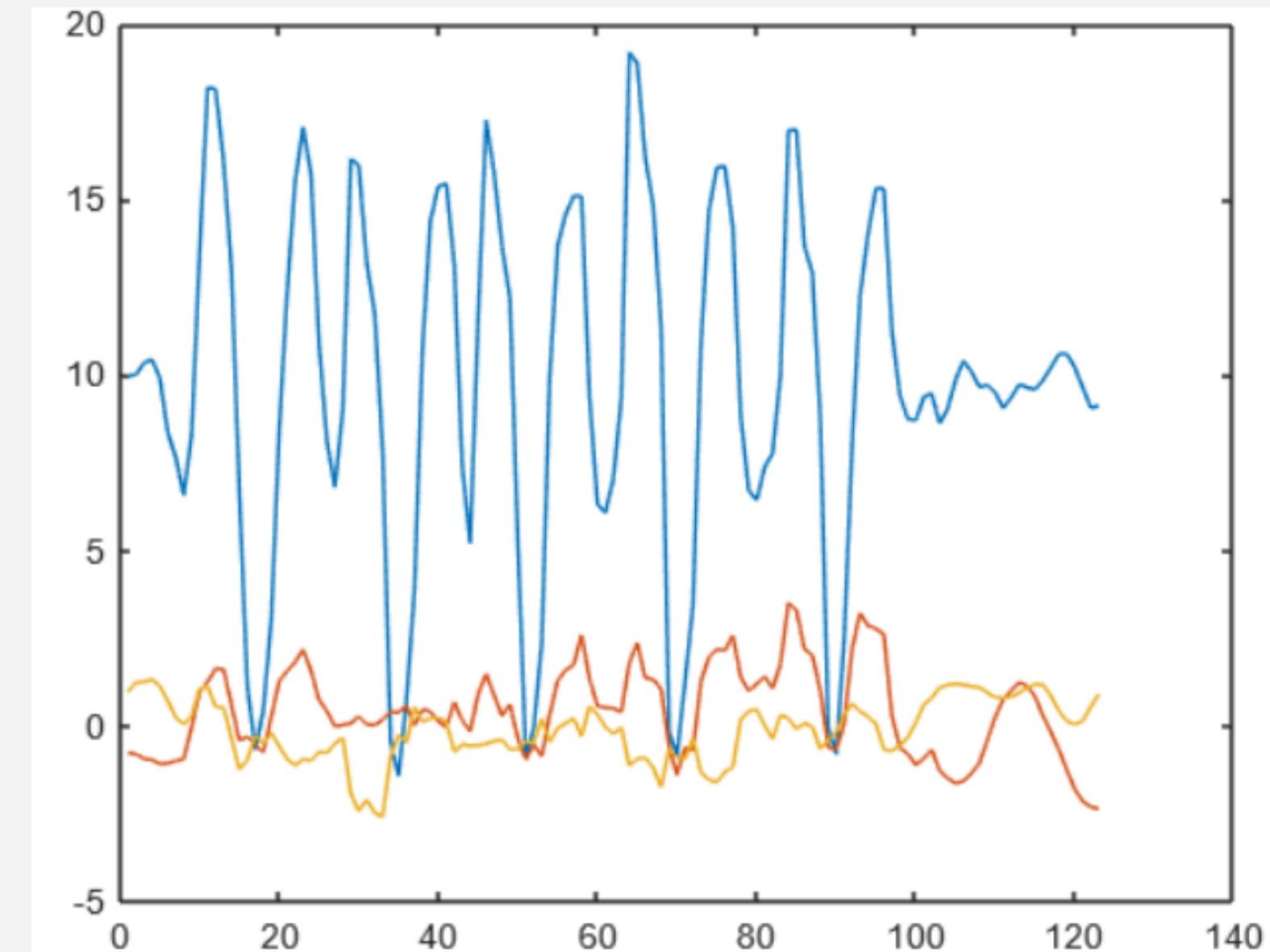


in meters



## Filtered acceleration on X, Y and Z

The signal is filtered using a sliding average filter to smoothen the signal.



# FUTURE RESEARCH



Using location detector and AI to draw and make art while exercising