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WEARDA is a software package
for commercial Smart Watches.

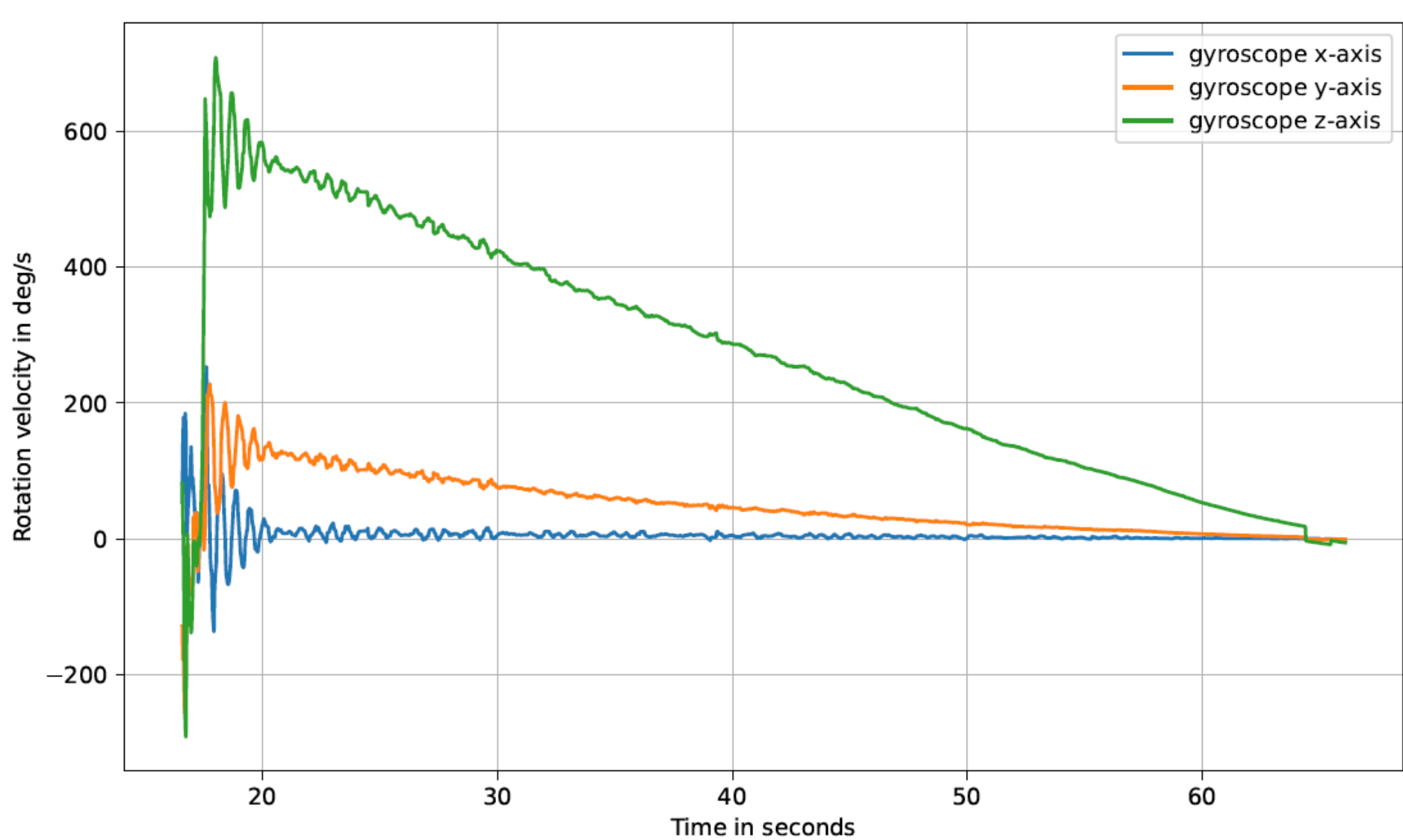
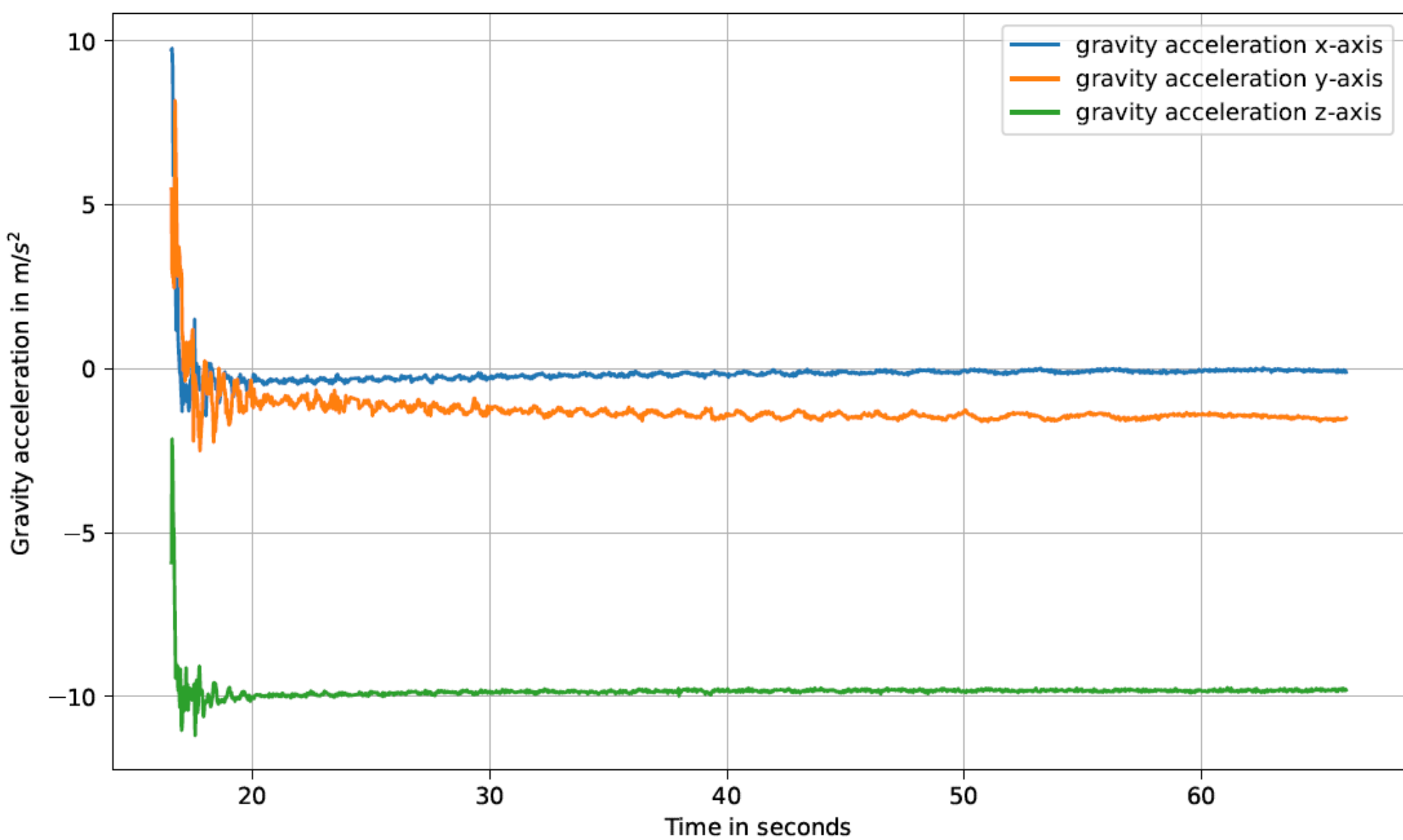
Custom-made for Researchers in
the field of Human Activity
Monitoring.



Sensors:

- A – Accelerometer
- G – Gyroscope
- M – Magnetometer
- B – Barometer
- HR - Heart Rate
- GL – Global Localization

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Challenges:

Table 1: Practical challenges and the functions how they are solved.

- Preparation
- Measurement
- Logistics
- Privacy
- Reproducibility

Challenges:	Preparation	Measurement	Logistics	Privacy	Reproducibility
Configuration file	v				v
Watch identifier	v		v	v	v
Automatic correction of configuration file		v			v
Removal files by UI watch	v	v		v	
Not easy to remove file by UI watch	v	v			
Person identifier		v	v	v	
Storage of all data also outside public area		v			
Easy entering person identifier		v			
Storages for days of measurements		v	v		
Not easy stopping the data collection		v			
Use of standalone laptop		v	v	v	
Quick upload of files to laptop		v	v		
Wireless upload to laptop			v	v	
Person id date time and watch id in data filename			v		v

Architecture:

- Front-end
- Backend service
- Configuration

Table 3: Configuration settings.

Field name	Field type	Possible values, () = default
Unique identifier watch	string	Example "D8F8"
Accelerometer interval	integer	0 indicates switched off, 10-1000 (25) ms
Linear accelerometer interval	integer	0 indicates switched off, 10-1000 (25) ms
Gyroscope interval	integer	0 indicates switched off, 10-1000 (25) ms
Barometer interval	integer	0 indicates switched off, 10-1000 (100) ms
GPS interval	integer	1-10 (1) seconds
GPS middle point privacy circle, latitude	float	-90.0-90.0 (52.169311) degrees
GPS middle point privacy circle, longitude	float	-180.0-180.0 (4.456711) degrees
GPS radius privacy circle	integer	0 indicates switched off, 10-1000 (100) meter
Write recordings interval	float	0.01-10.0 (0.05) seconds

Persistent identifier: <https://github.com/LiacsProjects/Wearda>
Licence: MIT license
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