**Benchmark Research**

A group of people riding bicycles on a road

Description automatically generated with low confidence

Zwift Avatar Example

A person on a bicycle in a living room

Description automatically generated with medium confidence

Home set-up

Data Collection

* ANT+ , Bluetooth with sensors embedded in the bikes
* Zwift main menu & Zwift companion app

Data Analysis

* Using GAM Model

Text, letter

Description automatically generated

* Explains the number of Zwifters in the /th world at the kth observation occasion.
* This model ranks the maps (city) in Zwift
* Source from: <https://zwiftinsider.com/analysis-of-zwift-usage-data/>

ERG Mode (Algorithm)

What is ERG?

* Fixes rider’s power output by automatically adjusting to his/her resistance to match his/her cadence by calculating power of the rider
* Power = torque (how hard you pedal) x cadence (how fast you pedal)
* ERG mode ensures the rider to hit the prescribed power output – works as a pre-built workout setup

Limitations

* Benchmarked against professional riders/athletes – potential error with cadence application depending on the trainers (system or physical)
* Affected by a fixed percentage of FTP (functional threshold power)
* Varies day to day depending on the condition of the riding day
* Limits the development of skills