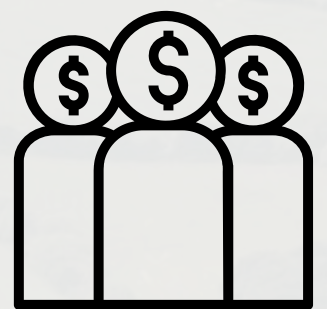# WALKING ZEBRA

WHERE THE ZEBRA CROSSES

WHAT WE DO

Provide a data collection, handling and visualisation tool to aid Councils in their quest to make safer streets.

TARGET MARKET

· Local councils that need concrete analytical data to aid their efforts to keep their residents safe

· Companies that need human traffic analytics

SENSOR

A Laird RM186 Board is used to process the PIR sensor data and tracks the time with an Real-time Clock DS132072 (RTC). The PIR sensor detects motion through infrared signals and the RTC is a computer clock that keeps track of the current time even when the power is off. The use of the Lora Radio Link allows us to transmit data across a larger space whilst minimising power usage. The board is programmed in Smart Basic. An event-driven programming language that aims to make the design of wireless products simpler

It is beneficial because we do not have to seek independent radio certification and can operate under Laird's licensing.

VISUALISATION

The system is accompanied with a sleek and easy to use website. This allows our clients to access their data and generate reports at their own convenience. An informative and customisable Grafana site is also available for the technical team to perform more detailed diagnostics.

DATABASE

Using both a Time-Series and SQL databases achieve the perfect mix of functionality and usability. Influxdb is used to collate and query the data the sensor collects. It is purpose-built for time-sensitive data, therefore, it offers the best manipulation tools and variety of plugins. An SQL database is used to handle all the data used in the website. It offers the simplest and most efficient solution the website needs.

BY NNENNE OFOCHEBE & VAUGHN SINCLAIR

SUPERVISOR: DANIEL KNOX