Micro:bit Project Sheet 5

Success Criteria
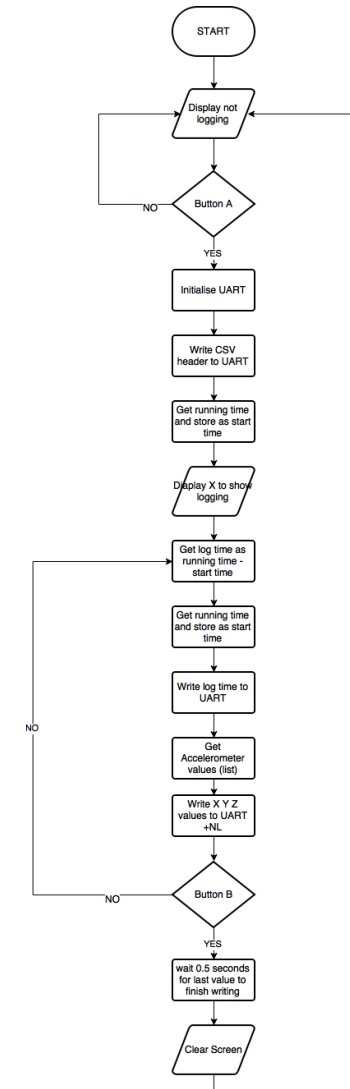
- Read X,Y,Z axis from accelerometer

- Log the data to a microSD card in a CSV format

- Read/Graph the data

µPython

Please download from

http://microbitsandbobs.co.uk/downloads/MicroPi-Logger.py

Design

START

Display not logging

Button A — NO / YES

Initialise UART

Write CSV header to UART

Get running time and store as start time

Display X to show logging

Get log time as running time - start time

Get running time and store as start time

Write log time to UART

Get Accelerometer values (list)

Write X Y Z values to UART +NL

Button B — NO / YES

wait 0.5 seconds for last value to finish writing

Clear Screen

Testing

- Does Micro:bit display not logging on start up

- On button A press does X display

- On button B press does not logging return

- Press button A rotate in X,Y,Z axis for 5 seconds - Press button B

- Is data recorded on SD Card

- Can data be imported into a spreadsheet tool

- Is data being recorded from all three axis

Notes