IoT Project 1

Foot traffic tracker

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GitHub: <https://github.com/MarshalPNV/Internet-of-Things-P1>

Trello Link: Since it was a solo project I didn’t use it

Inspiration / Research: <https://blog.roboflow.com/monitor-movement-in-retail-stores/>

Problem: Store owners do not have a way of continuously collecting data on the foot traffic into and inside of their shops. This means they have to rely on more manual methods to collection information on movement in their stores like sending in an employee to walk around like a customer and note down customer behaviour. This is inefficient as its biased to that specific day the inspection was conducted.

I have seen various blogs like the one I included above that showed how modern technology can be used to improve the ability of store owners to collect information and I plan on applying that solution in my project.

My Solution: My solution is an Arduino Yun device that tracks sounds above a certain level and saves that as data in a .csv file. (It was originally planned that it would use a motion detector but that wasn’t available)

It uses the Arduino Yun and the sound sensor included in the Grove Starter Kit.

A diagram of a block diagram

AI-generated content may be incorrect.

Plans for Future Improvements:

I plan to add internet functionality by making the data being saved go into a google spreadsheet that can be read while the device is functioning.

I also plan on changing the way the device saves data as currently it just writes down all sound levels then writes a symbol in the console line when it goes above the threshold. I want to change it so it counts the number of times it goes above the threshold every 30 minutes then saves that count in the spreadsheet. This would make the data readable for the user without having to go through extensive sorting.