IoT Project Proposal

Team ID - 31
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Overall objective

To build a Covid Smart Mall model, consisting of a smart entry and exit mechanism which restricts the maximum number of people in the mall to, say 100 and a temperature checker which denies entry to any person with body temperature more than say 100℃ and smart sanitizer dispenser.

What are the inputs/physical quantities measured ? and How are you going to use the input?

Our project uses a DHT-11 temperature sensor that'll be installed on the entrance measuring the body temperature of the person wishing to enter the mall , and does not open the door controlled by a servo motor in case of high body temperature.
We install a HC-SR501 PIR motion sensor on the entrance gate and exit gate for maintaining the number of people in the mall , and adhering to the maximum capacity allowed due to the covid restrictions.
HC-SR501 PIR motion sensor at the entry gate increments the person count as a person enters the mall and the one at the exit decreases the person count as the person leaves the mall , for simplicity we're assuming that there'll be only one gate corresponding to entry and one for exit.
And a smart sanitizer dispenser that uses PIR motion sensor and servo motor to dispense the sanitizing fluid.

Description of the output if any ?

We can keep a track of the number of people who visited the mall as this can be used both by mall authorities as well as health authorities to determine how many people have body temperature above a certain thresh-hold. We can also use the data to keep track of the amount of sanitizer used.The data can be made available to the general public so that they could plan their visit accordingly.