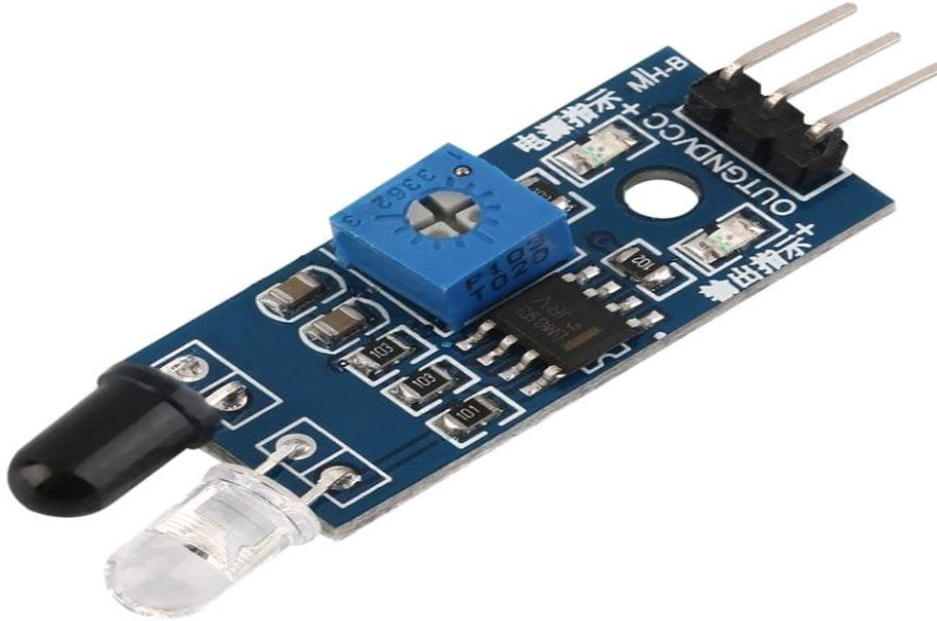


PHASE-2 DOCUMENTATION

SMART PUBLIC RESTROOMS



IR SENSOR

Definitions for IR Sensor :

An infrared sensor is a device that detects infrared radiation in its environment and outputs an electric signal. An infrared sensor can detect movement as well as to measure the heat of an object. The Infrared Sensor can detect infrared radiation, which is invisible to our eyes.

Steps for Flow Chart:

Step 1: Start the program

Step 2: Read data from flame sensor

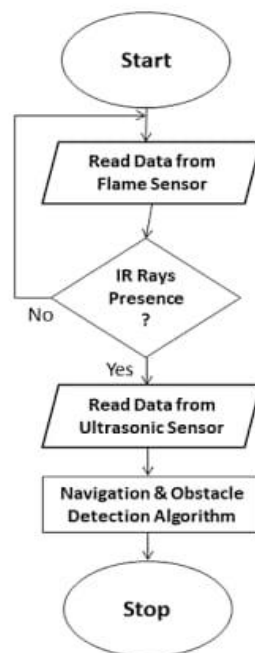
Step 3: If IR rays are present then go to next step, If IR rays not present then go to step 2.

Step 4: Read data from Ultra sonic sensor

Step 5: Then next go to navigation and obstacles detection algorithm

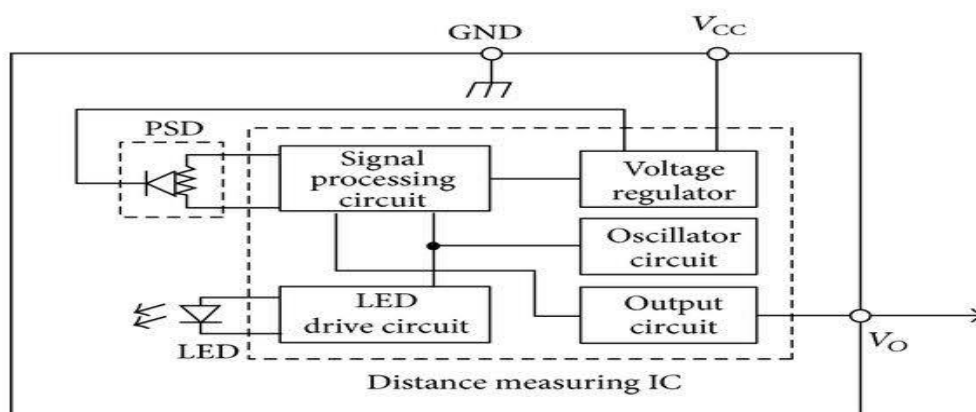
Step 6: Stop the program.

Flow Chart for IR Sensor:

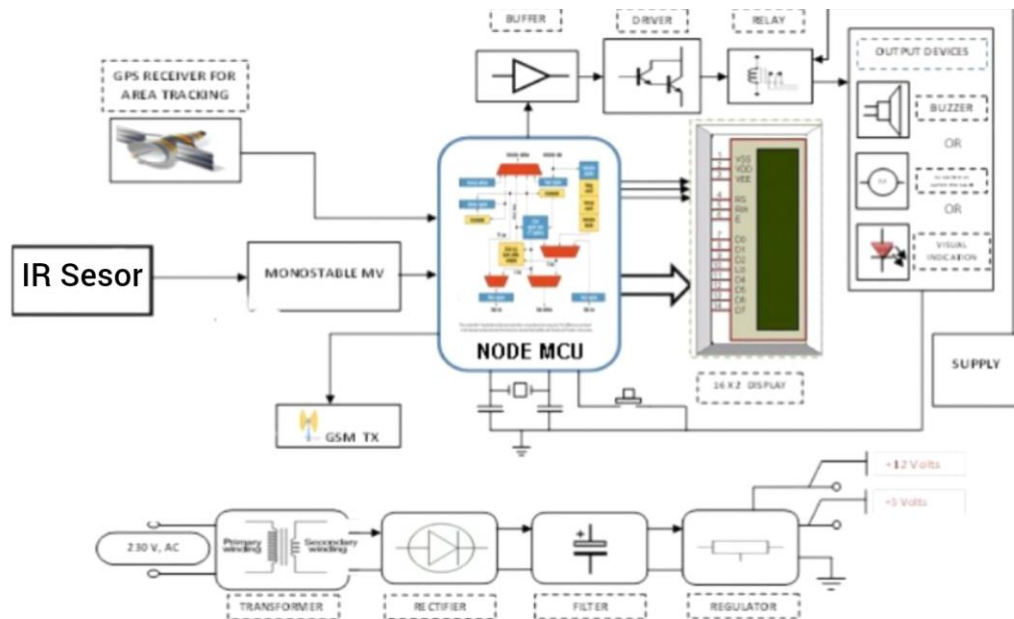


Explanation of Block Diagram :

- The Supply voltage V_{CC} is given to the distance measuring IC.
- In the IC voltage regulator regulates the PSD and signal processing circuit.
- The Signal processing circuit is connected to oscillator circuit LED drive circuit and output circuit.
- The LED drive circuit control the LED , when the LED light fall on the object or person , it collects the data and gives to signal processing circuit.
- The Signal goes to output circuit it gives the output.



Block Diagram for IR Sensor:



Circuit Diagram

Applications :

- Counts the object
- Analyse Distance between object and the restroom
- Display the object counts