

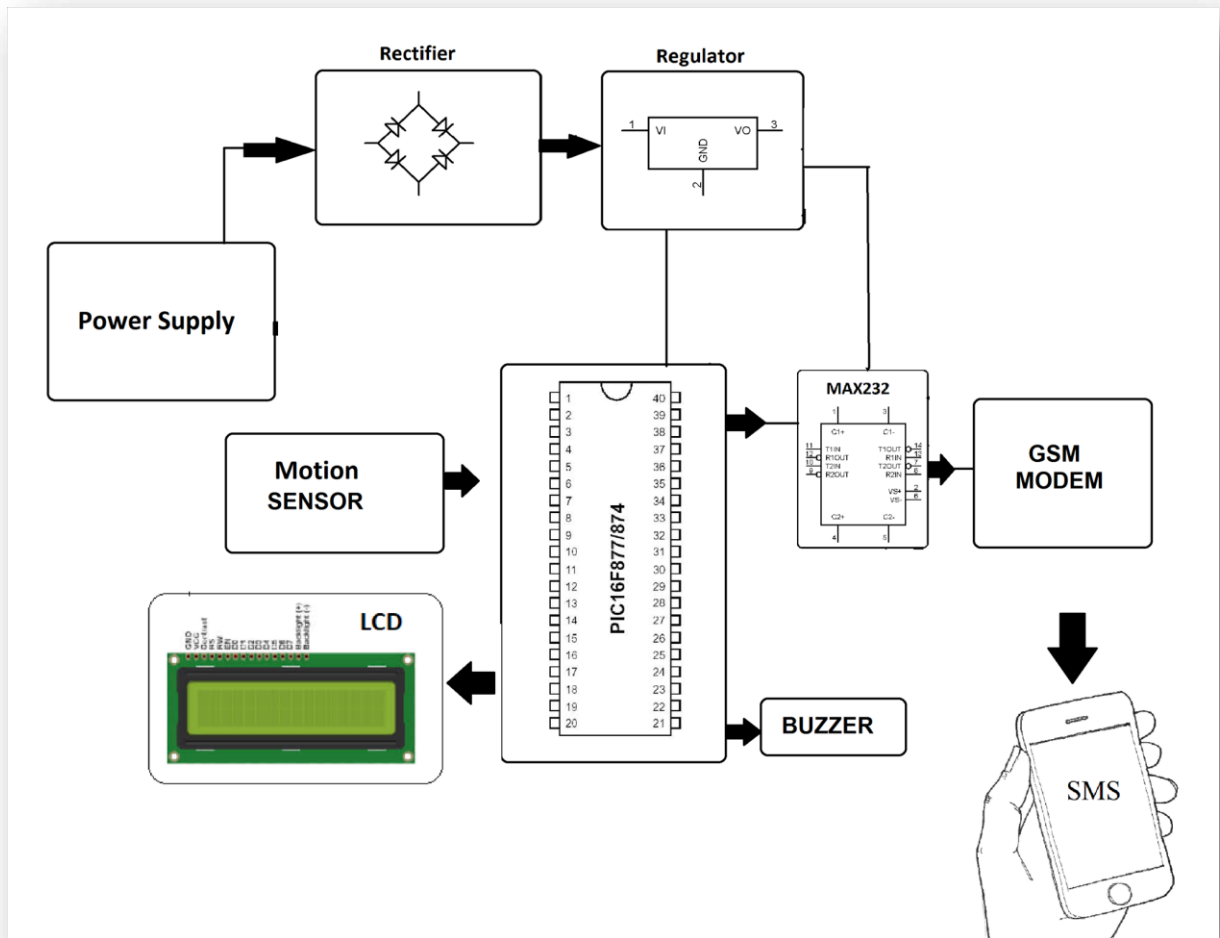
**Project Design Phase-I
Solution Architecture**

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|---------------|---|
| Date | 09 october 2022 |
| Team ID | PNT2022TMID14780 |
| Project Name | Project - IoT Based Smart Crop Protection System for Agriculture |
| Maximum Marks | 4 Marks |

Solution Architecture:

- ☐ In this we have used raspberry pi which is main heart of the system.
- ☐ This project is helpful for the farmers and because of this system farmers are not required to stay on field 24 hours and guard it.
- ☐ We have used PIR sensor for motion detection. After processing if motion is detected, camera will be automatically turned on and command will be sent to capture the image.
- ☐ Captured image will be processed with the help of Open CV to check if the motion was due to animal interference or human interference.
- ☐ If it is due to animal interference, sound will be produced by buzzer to scare away that animal, and an alert email containing that image will be sent to the farmer.
- ☐ Flashlight will be used during the night time to capture better image and to simulate the presence of human during the night time.
- ☐ If the motion detection is due to human being, then the system continues to sense the motion.

Example - Solution Architecture Diagram:



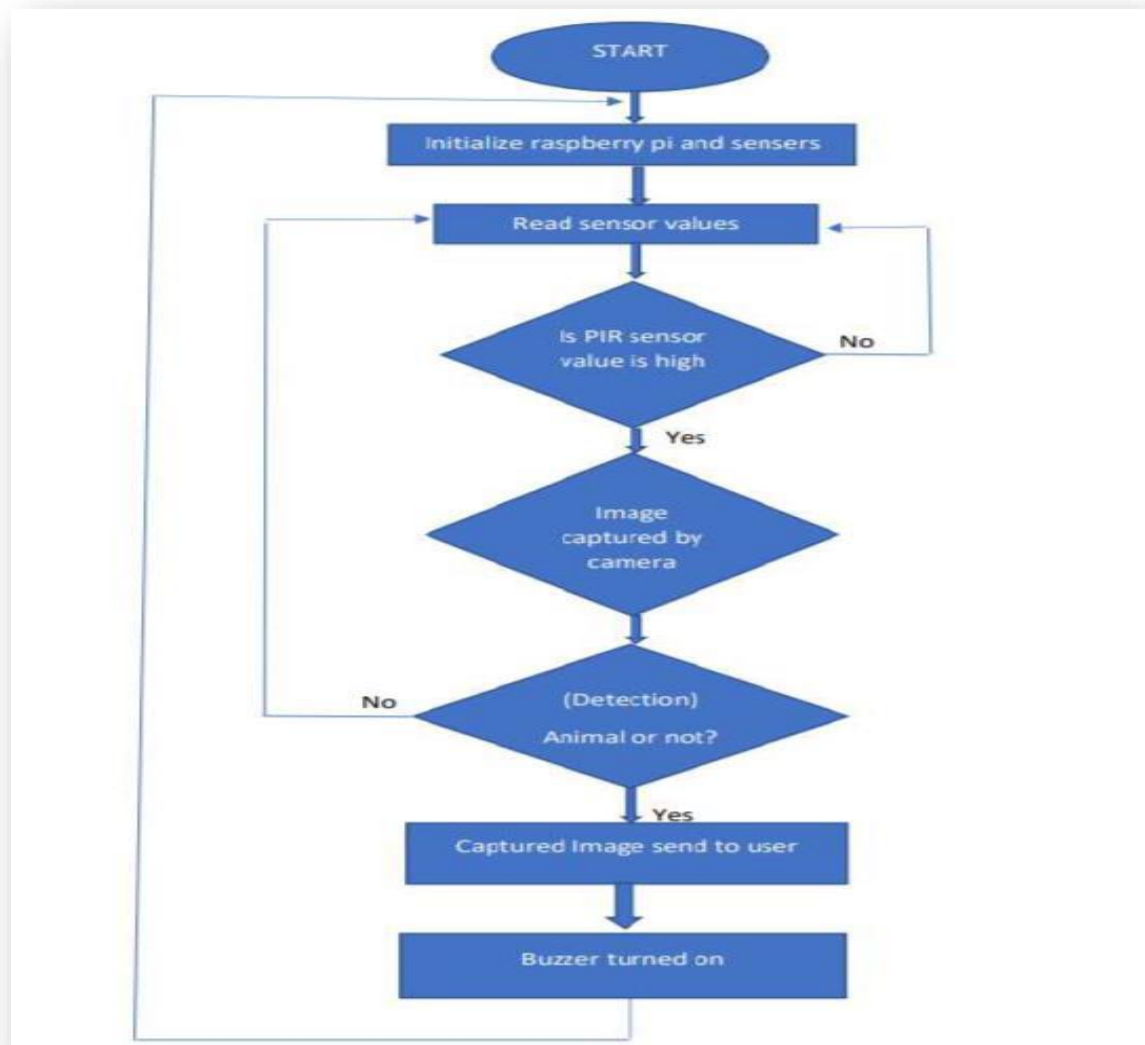


Figure 1: Architecture and data flow