WELCOME

TEAM ID : PNT2022TMID33625

TOPIC : IoT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

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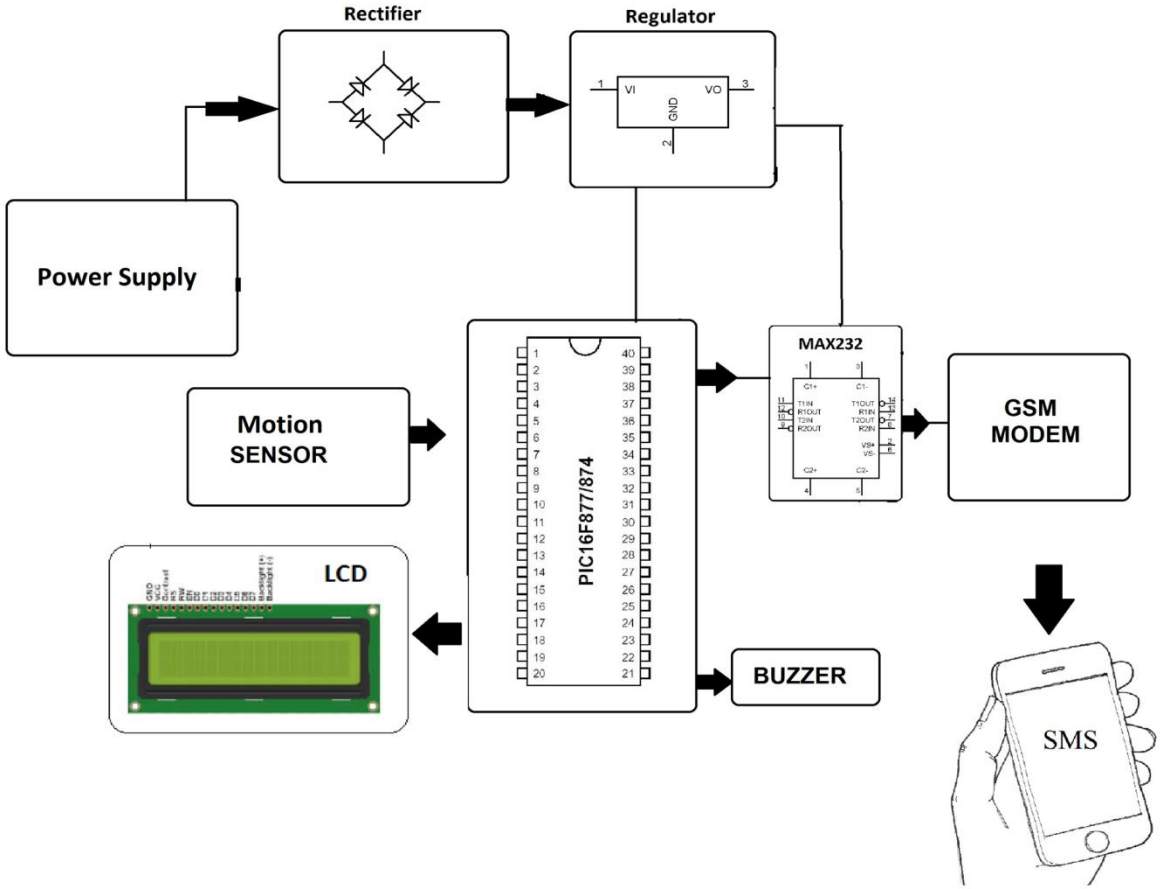
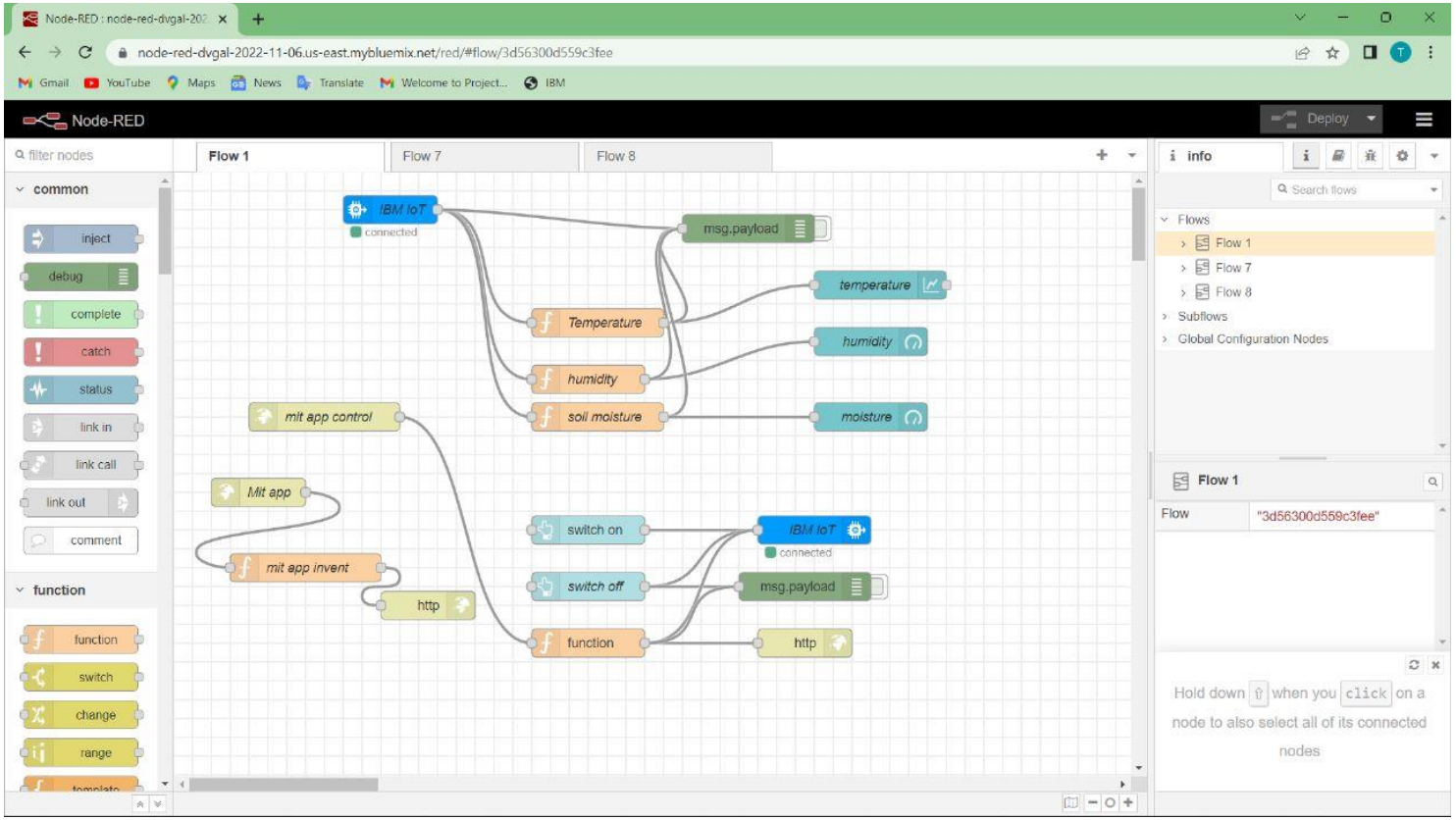
PROBLEM STATEMENT

The traditional agriculture and allied sector cannot meet the requirements of modern agriculture which requires high -yield , high quality and efficient output . Thus , it is very important to turn towards modernization of existing methods and using the information technology and data over a certain period to predict the best possible productivity and crop suitable on the very particular land . The adoptions of access to high speed internet , mobile devices , and reliable , low -cost satellites (for imagery and positioning) are few key technologies characterizing the precision agriculture trend. Precision agriculture is one of the most famous applications of IoT in the agricultural sector and numerous organizations are leveraging this technique around the world.

S. No	Parameter	Description
1)	Problem Statement (Problem to be solved)	The main aim of our project is to protect the crops from damage caused by animals as well as divert the animals without any harm.
2)	Idea / Solution description	We can provide a solution by using PIR and ultrasonic sensor to detect the presence of the animal by sending an input signal to the controller.
3)	Novelty / Uniqueness	We can use IoT devices to provide solutions for the problem in an efficient way. We use sensor to detect the movements of animals
4)	Social Impact / Customer Satisfaction	It is not possible for farmers to barricade entire fields or stay on field 24 hours and guard it. By using this device farmer can feel more relax and he restricted to go farm often.
5)	Business Model (Revenue Model)	Cost effective.
6)	Scalability of the Solution	Our project is capable to grow in the market as smart farming is an emerging technology nowadays.

Technical Architecture Diagram:

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Gmail
YouTube
Maps
News
Translate
Welcome to Project...
IBM
Node-RED
Deploy
filter nodes
Flow 1
Flow 7
Flow 8
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
IBM IoT
connected
msg.payload
temperature
Temperature
humidity
humidity
soil moisture
moisture
mit app control
Mit app
mit app invent
http
switch on
switch off
IBM IoT
connected
msg.payload
function
http
info
Search flows
Flows
Flow 1
Flow 7
Flow 8
Subflows
Global Configuration Nodes
Flow 1
Flow
"3d56300d559c3fee"
Hold down ⇧ when you click on a node to also select all of its connected nodes

FUTURE SCOPE:

In the current project we have implemented the project that can protect and maintain the crop. In this project the field remotely. In future we can add or update few more things to this project.

* We can create few more models of the same project, so that the farmer can have information of a entire.

* We can update this project by using solar power mechanism. So that power supply from electric poles can be replaced with solar panels. It reduces the power line cost. It will be a one time investment. We can add solar fencing technology to this project.

* We can use GSM technology to this project so that the farmers can get the information directly to his home through SMS. This helps the farmer to get information if there is a internet issuses.

* We can add camera feature so that the farmer can monitor his field in real time. This helps in avoiding thefts.

THANK YOU