Hardware and Admin Portal Flow

Pro Rescue Solution
Deepak & Sharang
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Version 0.0.1

REVISION HISTORY			
DATE	**VERSION**	**DESCRIPTION**	**AUTHOR**
23rd sept 2018	0.0.1	Hardware and admin portal flow	Deepak & Sharang

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Table of Contents

INTRODUCTION

PURPOSE
This document describes the Hardware and the Admin portal flow of the Pro Rescue Solution.
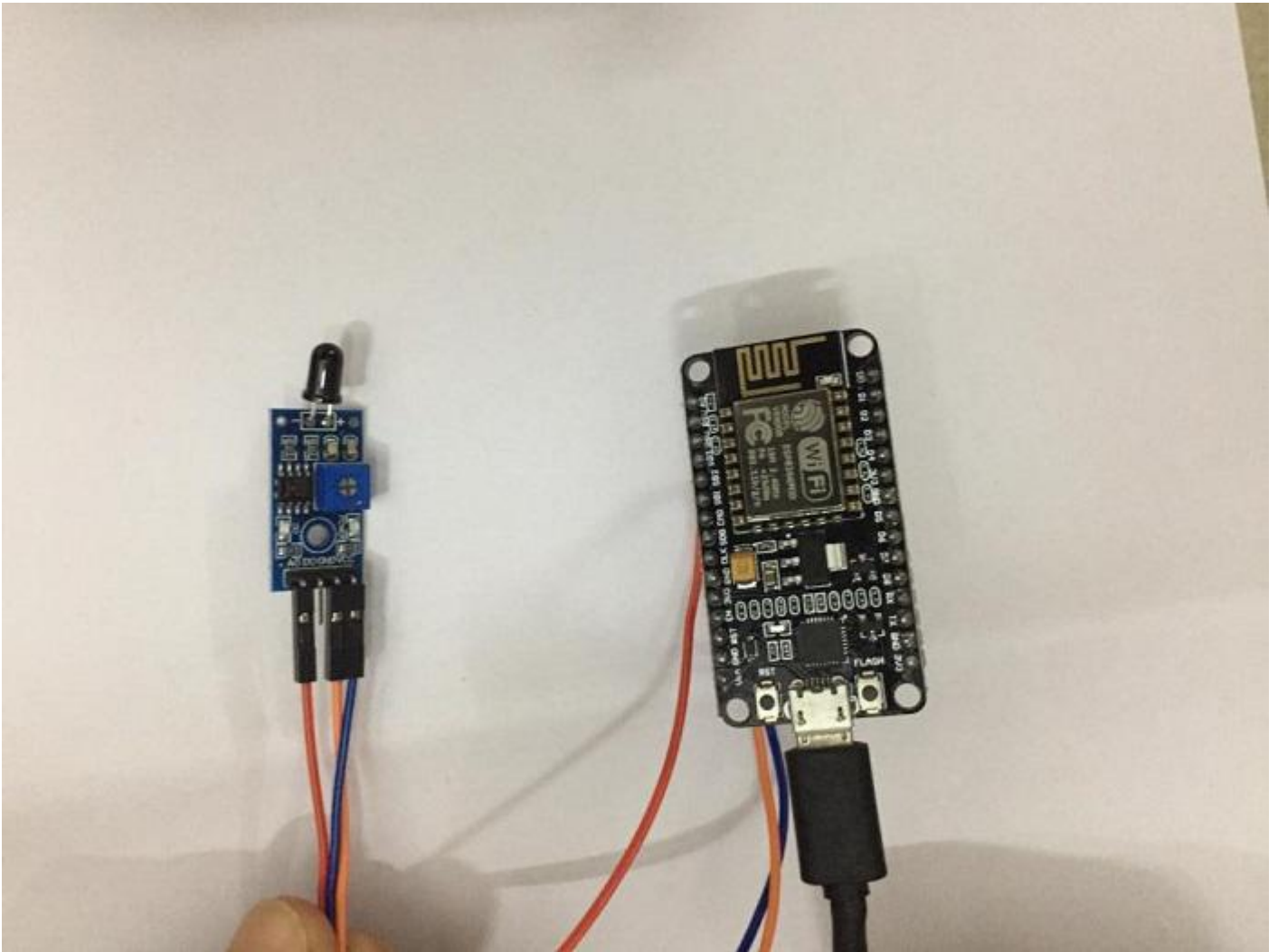
DESCRIPTION

HARDWARE
➢ Sensors:

Fig: Fire Sensor with NodeMCU

Fire Flame sensor, Water sensor and Gas sensor are used to get the realtime data of temperature, water logging and presence of liquified petroleum gas in proximity. This data is passed to NodeMCU for
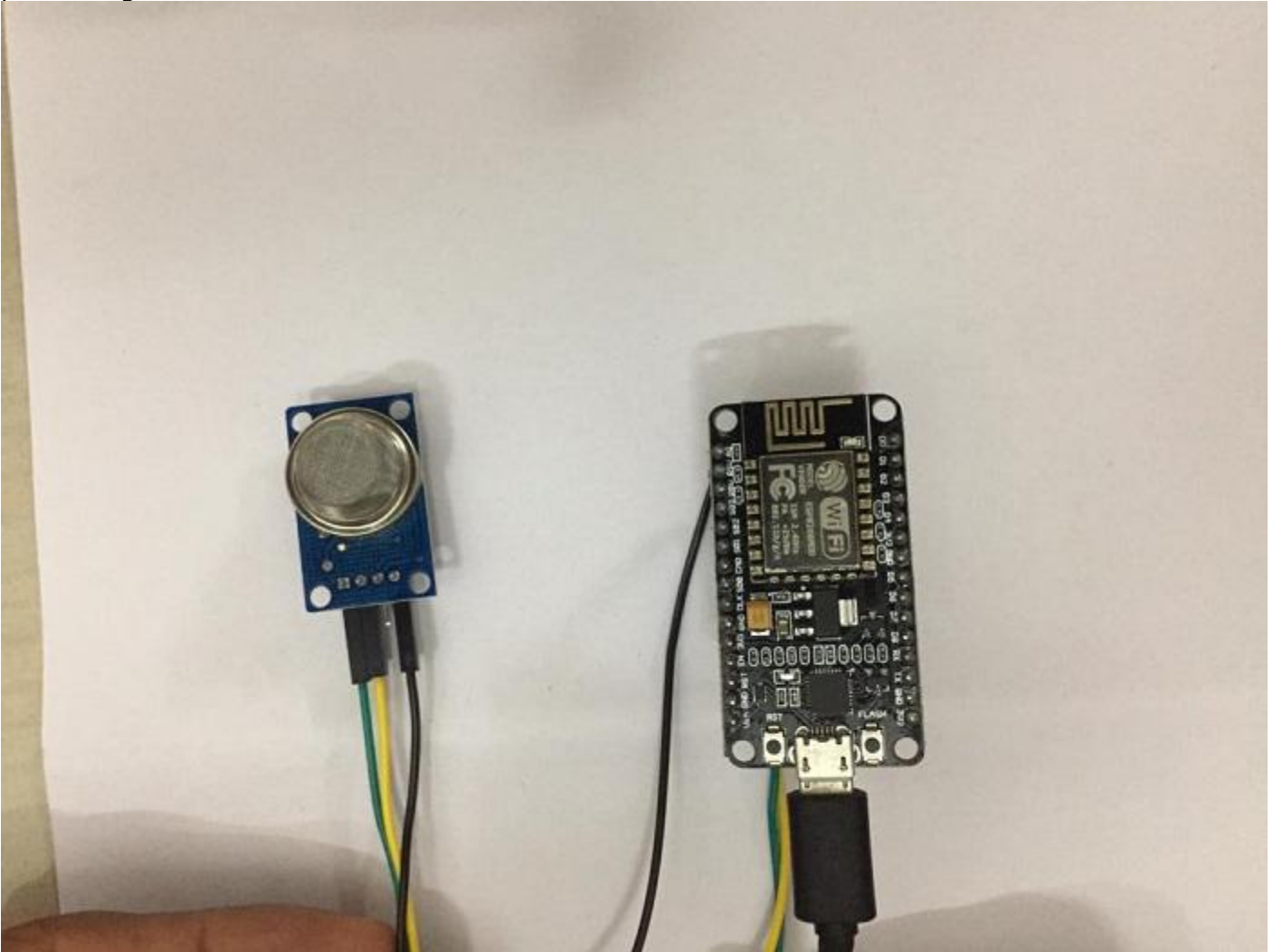
processing.

Fig: Gas sensor with NodeMCU

> ### NodeMCU:
It is the microcontroller with inbuilt wifi module connected to sensors and acts as an interface between server and sensors on ground. It connects to a wifi network with the help of wifi module and sends the HTTP post request of the sensor data to the IBM bluemix NodeJs server API. Based on the threshold algorithm, if the data crosses certain limit it posts the values of the current location of sensor to the server, which in turn raises an alarm situation which is broadcasted to NodeJs server API.

Fig: Water sensor with NodeMCU

ADMIN PORTAL
➢   Flow:
The Admin portal enables the admin/rescue team to identify the disaster situation, check notification from nearby areas, evaluate the disaster preparedness through sensor data graph, check status of rescue team, monitor rescue requests, get statistics of rescued people. Admin can also see the various areas affected by flood, fire and gas explosion on the maps and monitor it.
➢   Features:
1. Statistics and location of rescue teams.
2. Total number of sensors plotted across city.
3. Live update of notifications of disaster and preparedness.

4. Live updates of on field sensor data.
5. Monitoring of flood, fire and chemicals/gas affected areas.
6. Live monitoring of rescue or help requests.
7. Monitoring of helping partners.
8. Line charts.
9. Agm markers.

➢ Portal Flow Details:

The admin portal flow starts with Dashboard which consists of general and alert notifications, pie chart of the statistics of rescue team and location and status of rescue team on google maps. The agm-marker-cluster on the graph shows the location of the rescue team.
Admin can get the live disaster updates on the portal based on threshold algorithm.
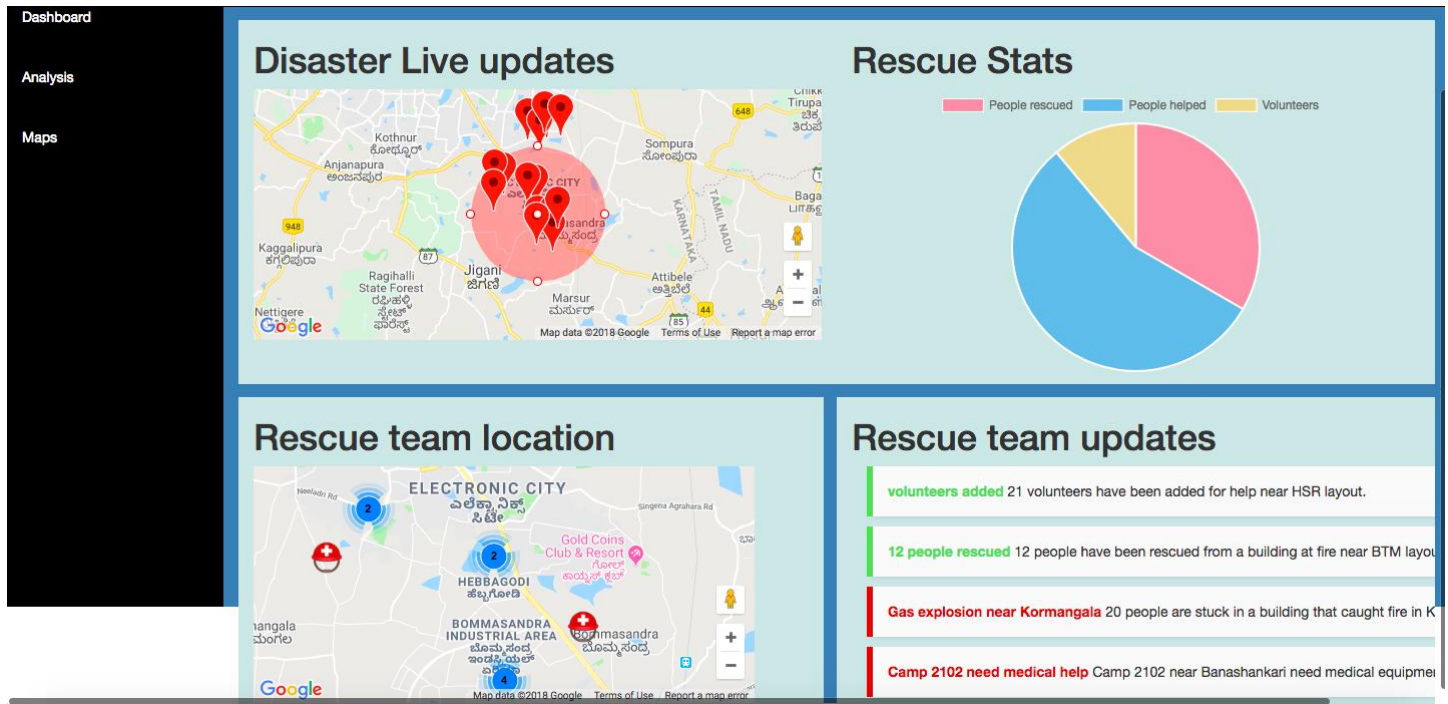
Analysis page consists majorly the live data graph coming from the field sensors.
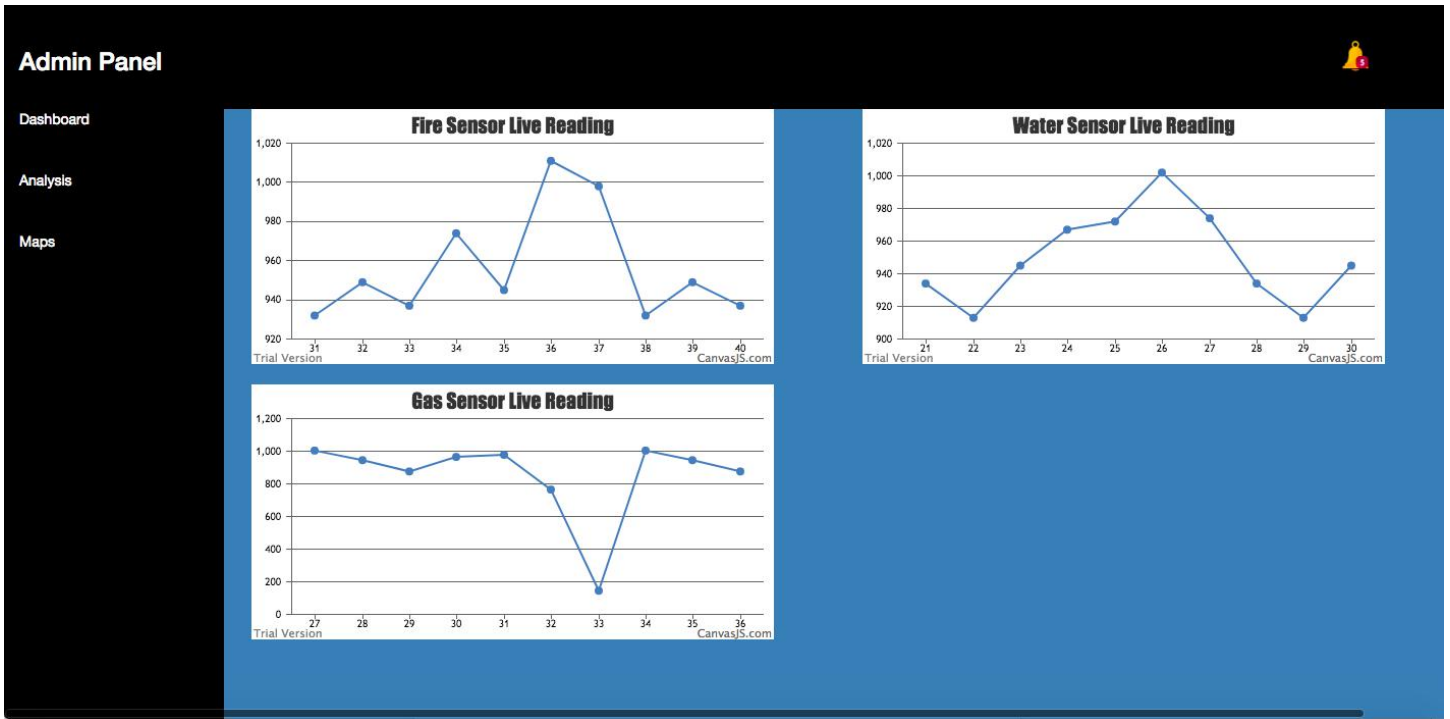
Maps page consists of the fire hazard, water hazard, incoming requests and gas hazards locations and markers on AGM maps.