

AIR POLLUTION MONITORING USING IOT

“ LIFE SAVIOUR ”

SUBMITTED BY

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THE PROBLEM

Problem?

- Increasing concentration of harmful gases in atmosphere.

Who has this problem?

- All living Organism suffer from serious disease relating to respiration and lungs.

Why should this problem be solved?

- To save human life and to control hazardous air pollution that is increasing day by day.

How will we know this problem has been solved?

- With the help of monitoring air pollutants with real-time data, can take preventive measures which gradually help in controlling the air pollution.

BACKGROUND INFORMATION

- The model is using the VGA Monitor interfacing with microcontroller for directly displaying the monitored data, also helps to replace bulky and costly displays.
 - The increase in population and infrastructures alongside increases the pollution which can severely harm the living being and the environment.
 - On daily news relating to increased air pollution and its harmful effect made a matter of concern for our research. The following references are also used:
 - Daily NEWS
 - Project mentor experience
 - Internet

WORKABLE SOLUTIONS

Solution

- ⑩ This model requires microcontroller and gaseous sensors.
- ⑩ The final project model will take a form of portable device for plug-n-play at any vga display monitor.
- ⑩ This device need to be mounted over vehicles for monitoring wide area and providing a real time data.

WORKABLE SOLUTIONS

Solution

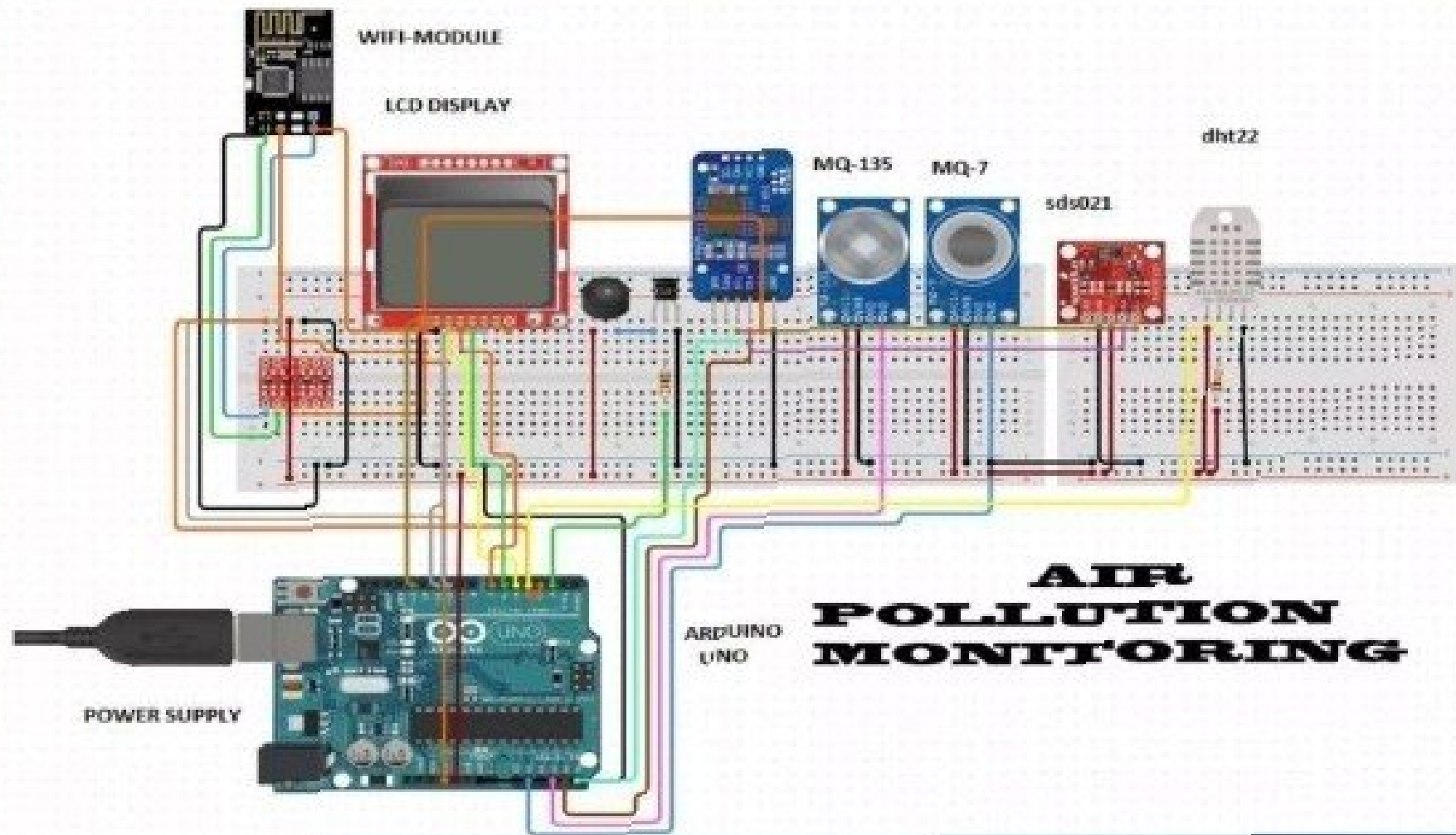
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THE PROTOTYPE

- Choose the best workable solution and create a plan to build a prototype
- What materials will you use for your prototype?
- The prototype be a model and also be further worked on to make more compact.



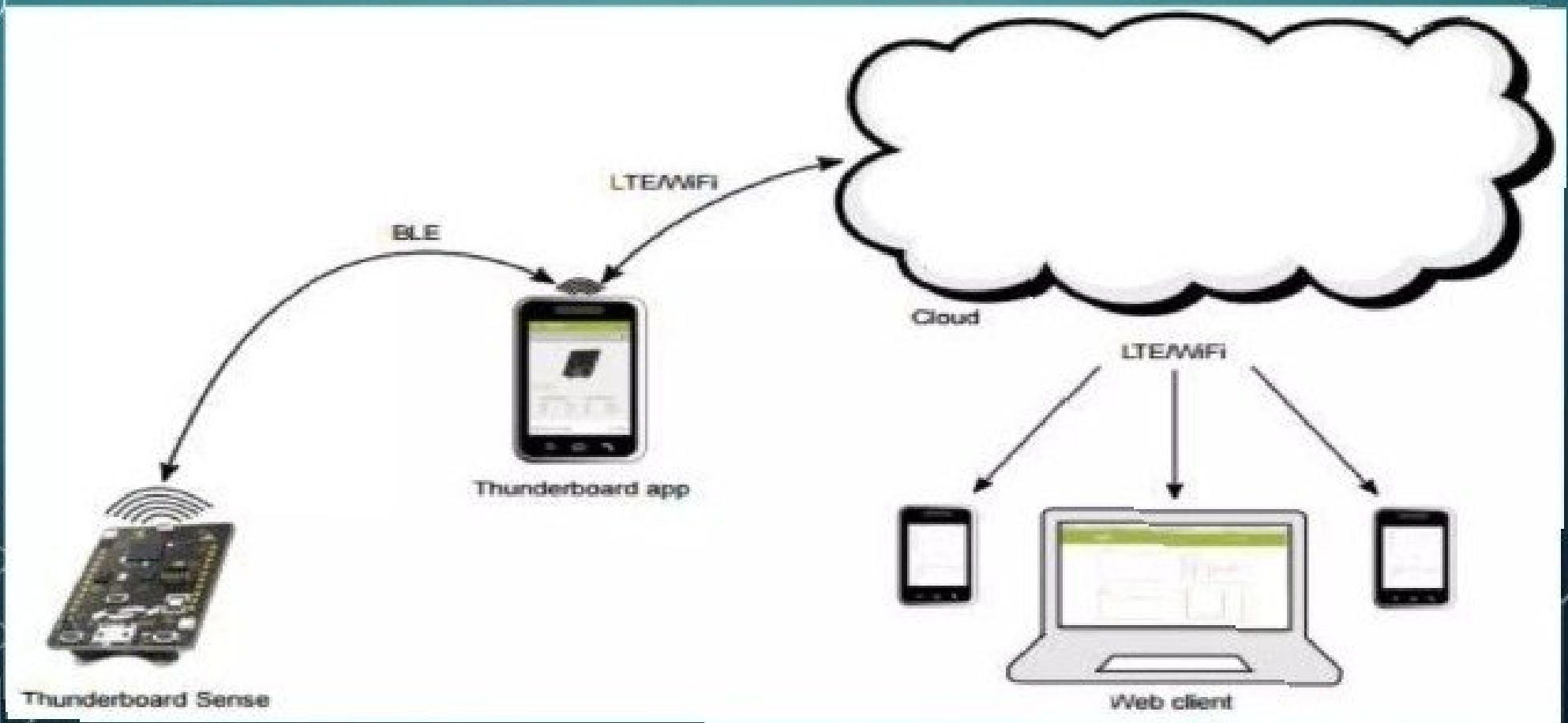
THE PROTOTYPE



SENSORS DETAILS

SENSOR	SPECIFICATION
DHT22	TEMPERATURE ,HUMIDITY
MQ-7	CARBON MONOXIDE
MQ-135	AIR QUALITY SENSOR
DS3231	DATE AND TIME SENSOR
SDS021	PARTICULATE MATTER

WORKING



TESTING THE PROTOTYPE

- What worked? What did not work? Why?
- What materials need to be changed and/or kept? Why?
- Did the size of your prototype give you enough information to move forward with a final product? Why or why not?
- Did you have other people test your design and give you feedback? Why or why not?

HOW

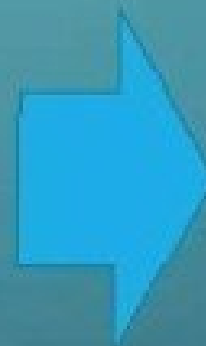
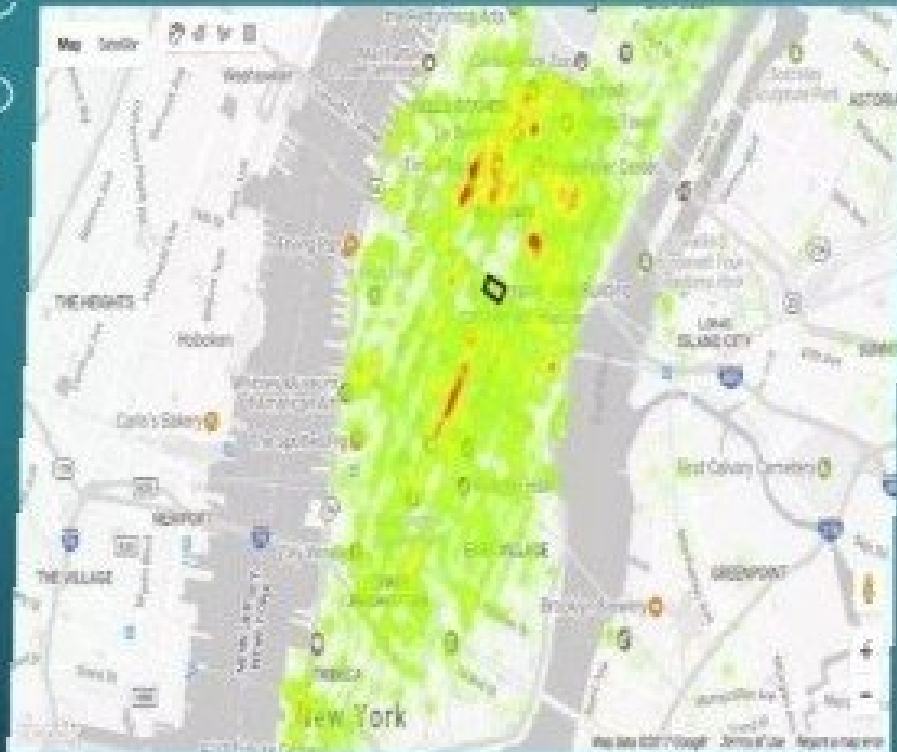


DATA FROM SENSORS ARE
CLOUD



UPLOADED OVER





UNHEALTHY CONDITION

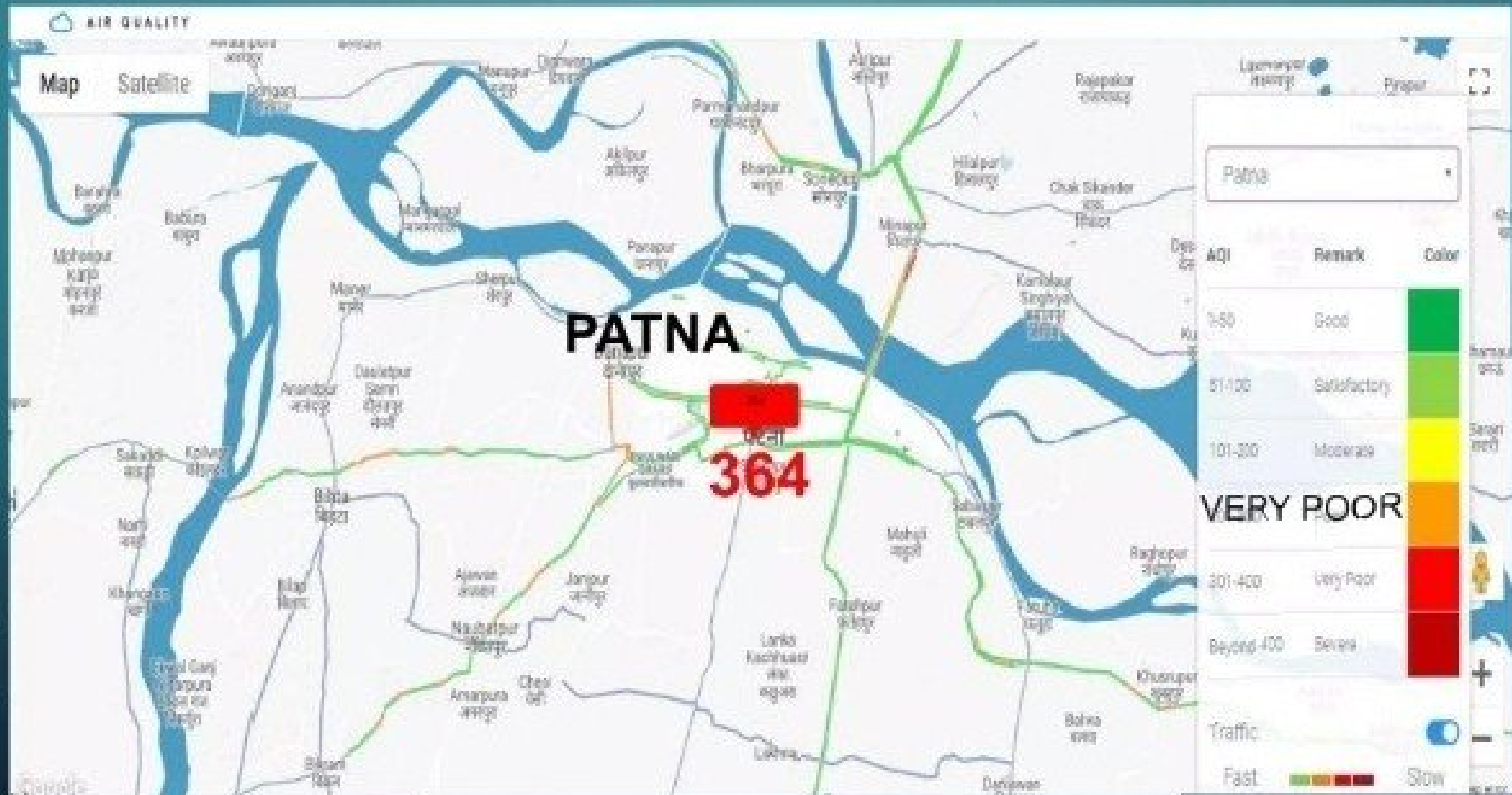


HEALTHY CONDITION

HOW TO USE

- BASICALLY THE DATA STORED OVER CLOUD WILL BE ACCESSIBLE TO ALL AS WE ARE PROVIDING A WEB SERVICE TO THEM FROM WHICH THEY CAN GATHER ANY INFORMATION RELATED TO AIR POLLUTANTS IN THEIR VICINITY.

WHY



REDESIGNING THE PROTOTYPE

- Use the data from your testing to redesign with...
 - Different materials
 - Different builds
 - Different sizes
- Write about or show images of your prototype redesigning process and result

FINAL RESULT

- Once you have a final product, go back to your second slide and review the initial questions you answered
 - Does your final prototype solve your problem for the person or people for whom it needs to be solved?
 - If yes, **WAY TO GO!** But always think about if you can improve it even more!
 - If no, copy this PowerPoint and start the problem/solution cycle again
- Insert pictures of your final design
- Discuss why this design solves the problem
- Reflect on how you feel about the process from start to finish in this project