FLOOD MONITORING AND EARLY WARNING

IOT_Phase-2

INTRODUCTION

In this phase you need to put our design into innovation to solve the problem.

Explain in detail the complete steps that will be taken by you to put your design that you thought of in previous phase into transformation.

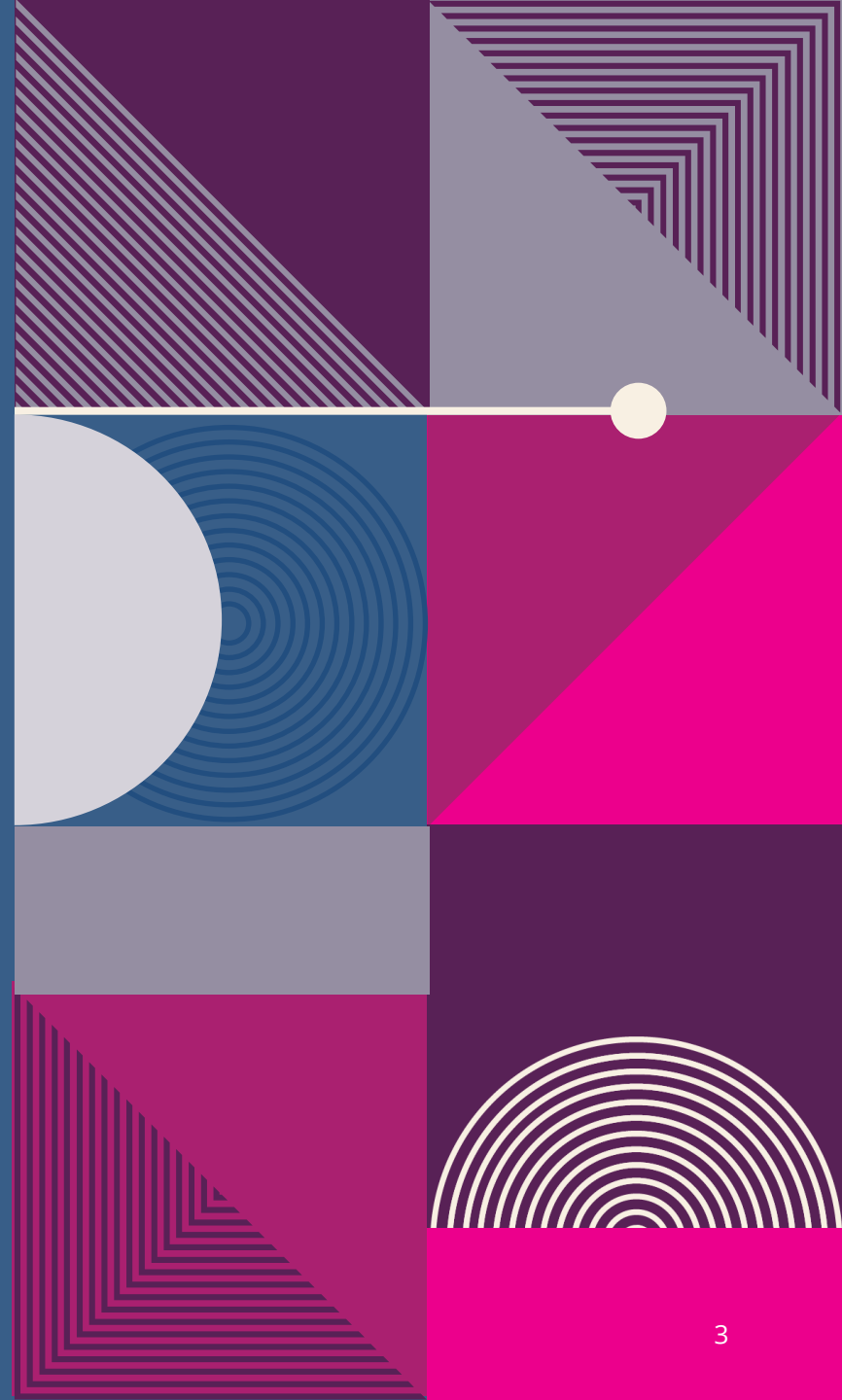
REQUIRED COMPONENTS

HARDWARE COMPONENTS

- Arduino Uno
- GSM SIM 800 C Module
- Water Level Sensor
- Connecting Cable
- 12V Adapter

SOFTWARE REQUIREMENTS

- Arduino IDE
- Programming Language –C Language

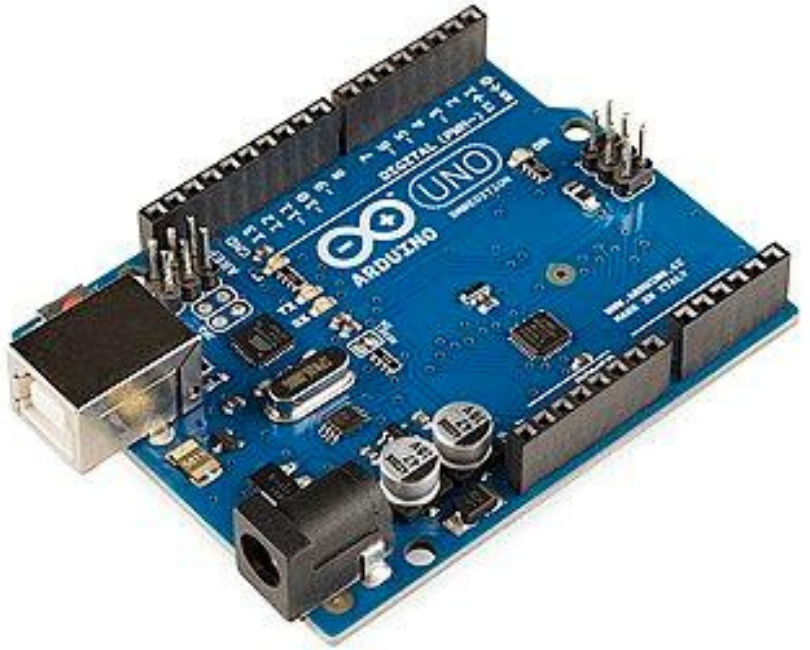


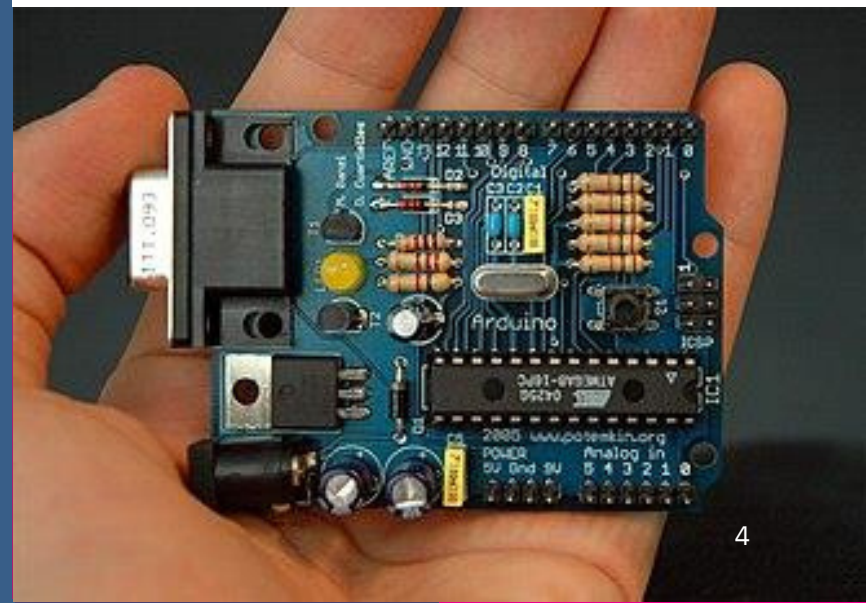
ARDUINO UNO

TheArduino Unois anopen-sourcemicrocontroller boardbased on the Microchip ATmega328P microcontroller(MCU) and developed byArduino.ccand initially released in 2010.

The word "uno" means "one"

inItalianand was chosen to mark a major redesign of the Arduino hardware and software.



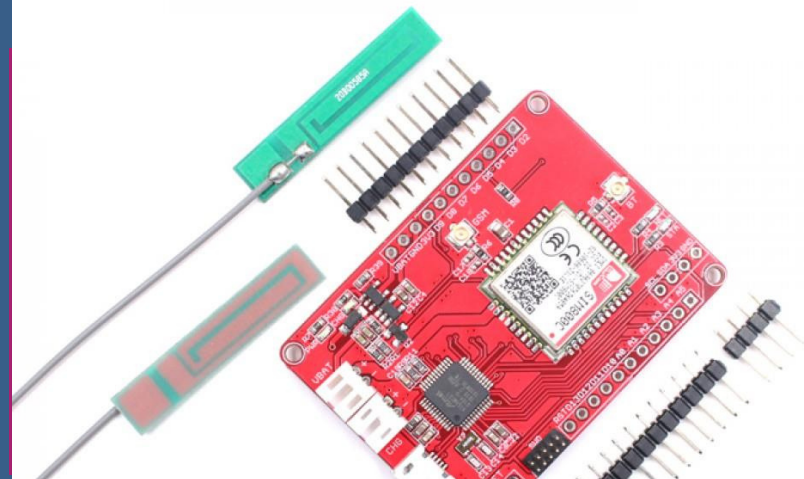


GSM SIM 800 C MODULE

The Global System for Mobile Communications (GSM) is a standard developed by the European Telecommunications Standards Institute (ETSI) to describe the protocols for second-generation (2G) digital cellular networks used by mobile devices such as mobile phones and tablets.

GSM module is a specialized type of device

which accepts a SIM card, and operates over a subscription to a mobile operator, just like a cell phone or pager.

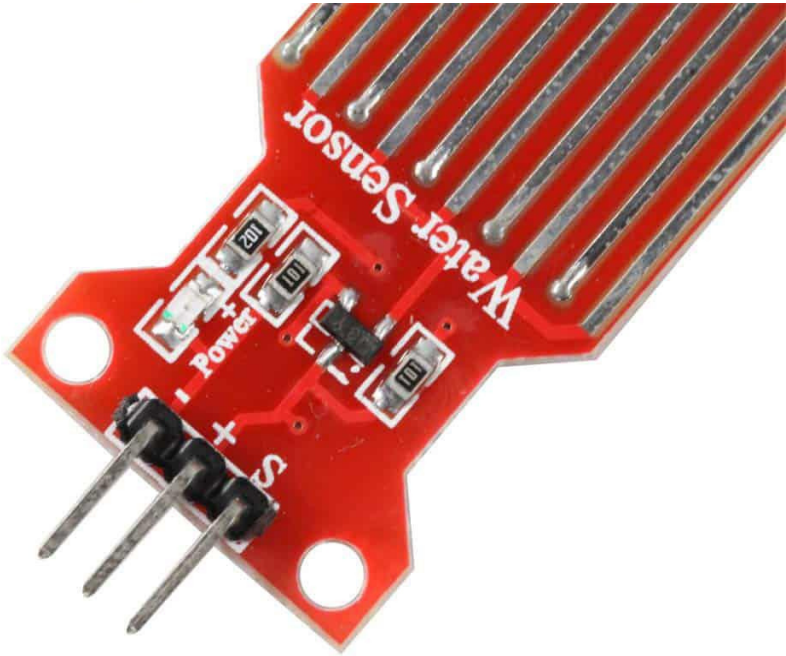


WATER LEVEL SENSOR

Water level sensor is an easy-to-use, cost-effective high level or drop recognition sensor, which is obtained by having a series of parallel wires exposed traces measured droplets or water volume in order to determine the water level.

Easy to complete water to analog signal

conversion and output analog values can be directly read Arduino development board to achieve the level alarm effect.



CONNECTING CABLE & 12V ADAPTER

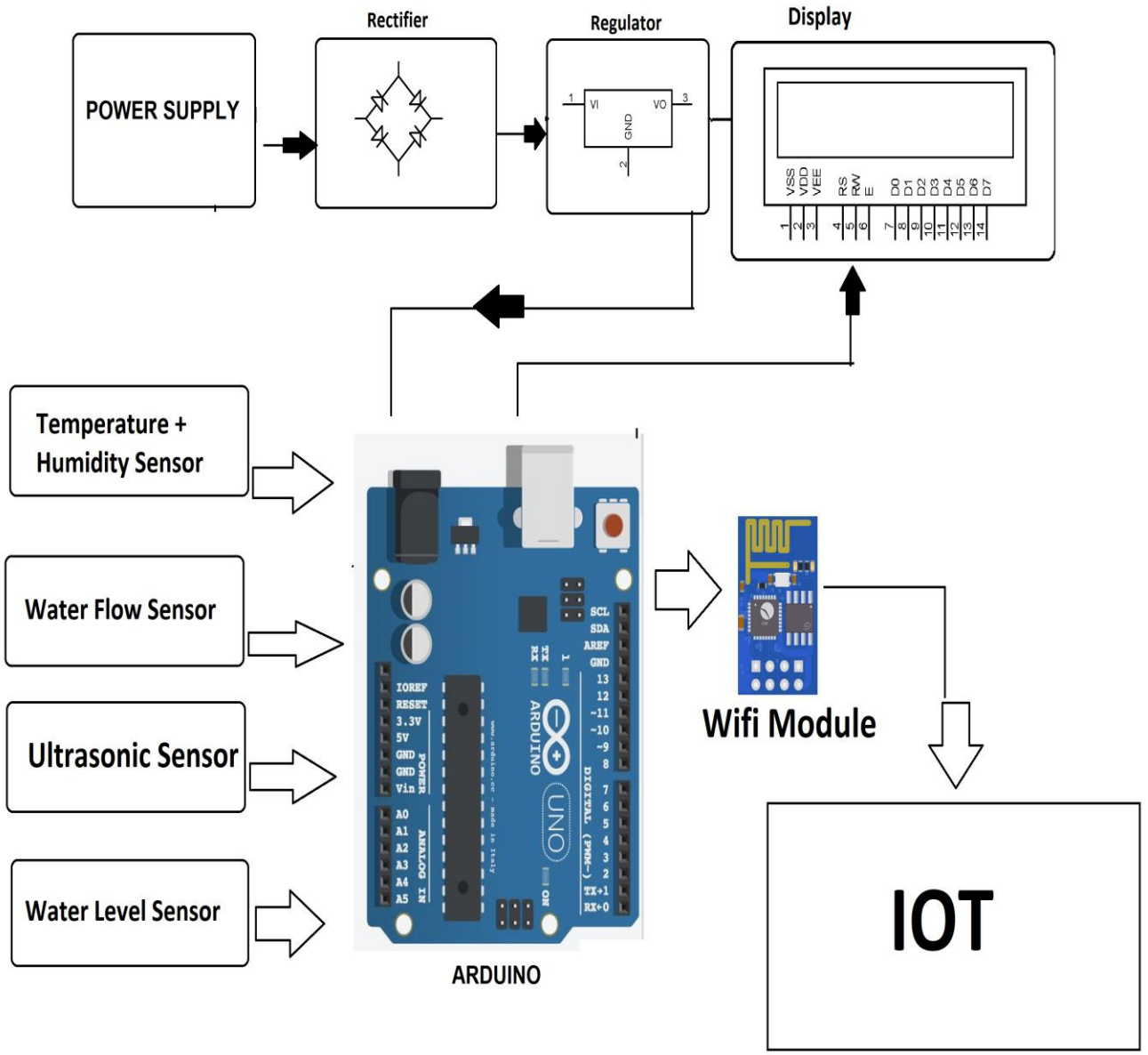
Any cable or wire, whether provided by the authority or otherwise, used to connect thee charging apparatus to a vehicle and that is not permanently attached to the charging apparatus.

Adapter is a device that converts attributes of one electrical device or system to those of an otherwise incompatible device or system.

A 12V DC power supply is an adapter designed to supply precisely 12 Volts of direct current to a device.

ARDUINO IDE

The Arduino Integrated Development Environment (IDE) is an open-source software platform designed to simplify the process of programming and uploading code to Arduino-compatible microcontroller boards. It provides a user-friendly interface for writing, compiling, and uploading code to a wide range of Arduino-based hardware


POWER SUPPLY
Rectifier
Regulator
Display
VI
VO
GND
VSS
VDD
VEE
RS
RW
E
D0
D1
D2
D3
D4
D5
D6
D7
Temperature +
Humidity Sensor
Water Flow Sensor
Ultrasonic Sensor
Water Level Sensor
ARDUINO
Wifi Module
IOT

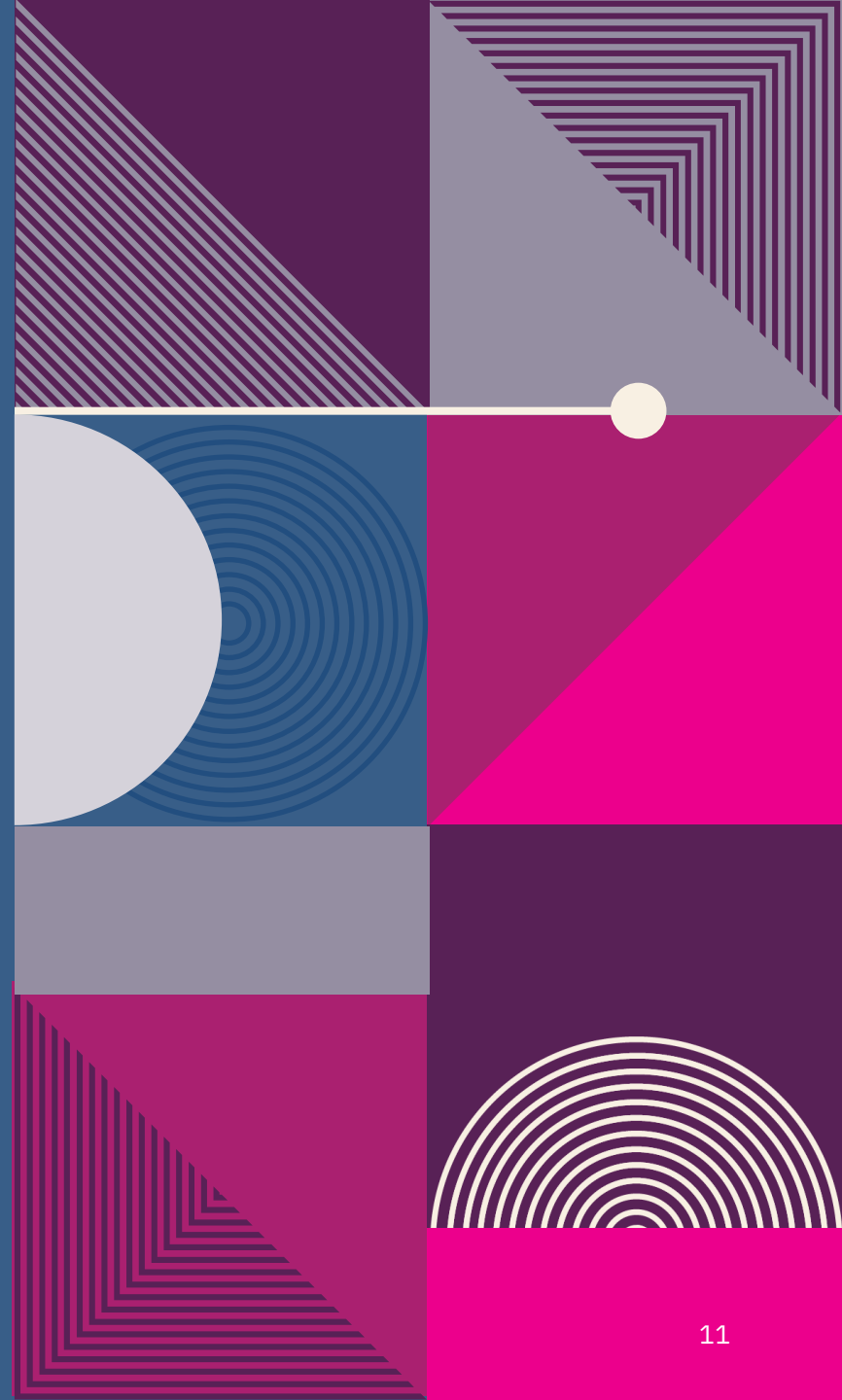
INNOVATION

STEPS:

- Connect the GSM Module to the Arduino UNO board.
- Connect the water level sensor to the GSM Module.
- Connect the signal pin to pin A3 in the GSM Module, connect the positive pin to the 5V and negative pin to the ground.
- Connect the adapter to the GSM Module.
- Write the Arduino code and upload it.

APPLICATION TO ACCESS THE DATA

- **Choose a Platform** –Either Android/IOS or Web Application
- Develop and Design the App
- **Retrieve Data** –Use HTTP Request to fetch the data
- **Display Data** –Create a UI to display the data



THANK YOU!

Submitted BY,
KARTHIK.S