



ARDUINO AND DHT SENSOR

Reading the environmental
temperature and humidity using a
DHT 11 sensor with an Arduino
board.



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Topics Covered



Project Objective



Hardware Requirements



Circuit Diagram



Step-by-Step Assembly



Software Overview



Testing and
Troubleshooting



Demonstration



Conclusion

Project Objectives

Arduino

DHT 11

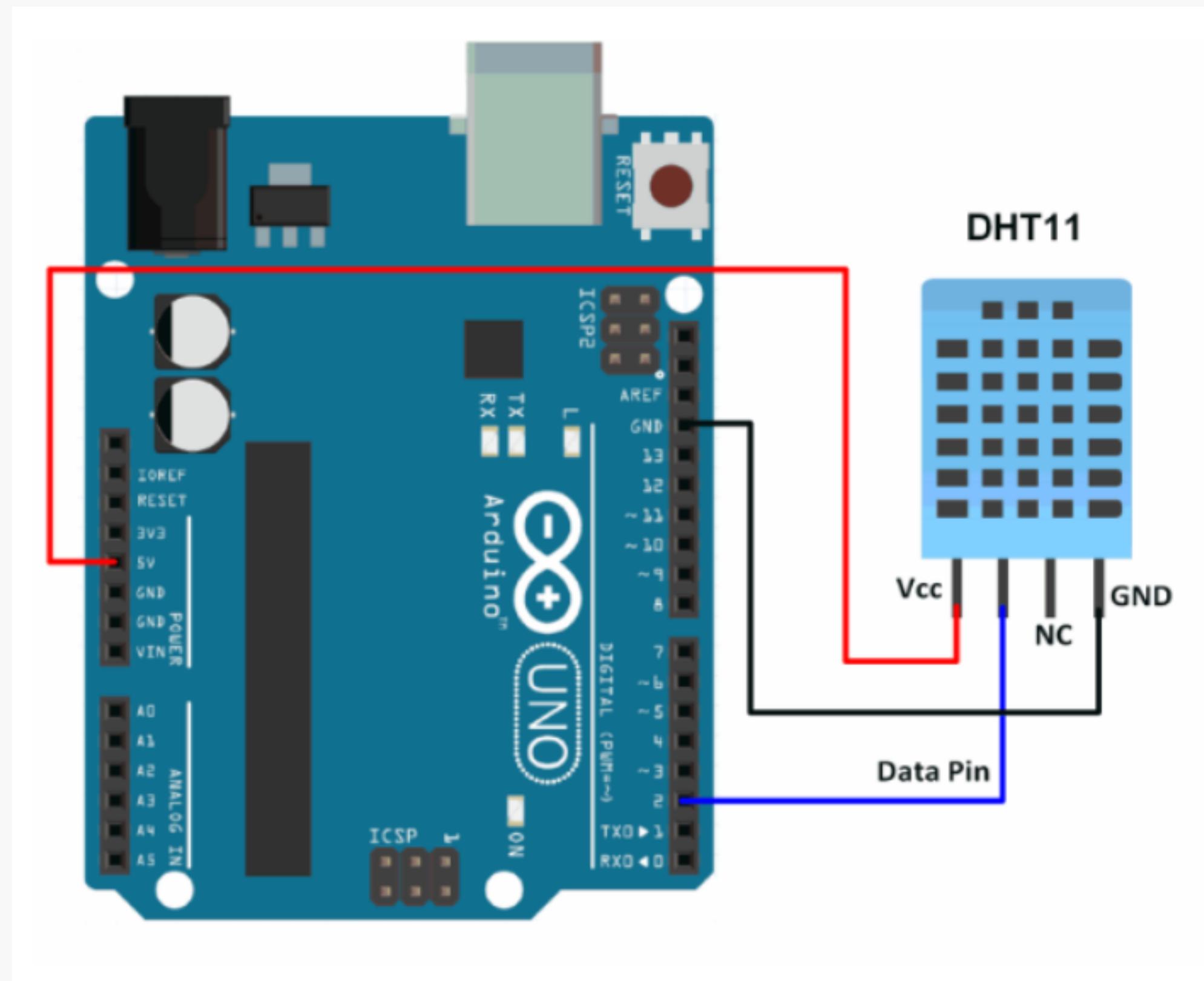
Familiarising ourselves with the Arduino board and understanding it's basics

Understanding the principles behind the DHT 11 sensor and it's application in real-time environmental monitoring

Hardware Components

- 1 Arduino Uno Microcontroller Board
- 2 DHT 11 Sensor
- 3 Jumper Cables
- 4 USB Cable for Arduino

Circuit Diagram



Step-by-Step Assembly

- 1** Connect the VCC pin of the DHT 11 to the 5v port of the board
- 2** Connect the GND pin on the DHT 11 to one of the GND ports on the board
- 3** Connect the VCC port on the DHT to one of the digital ports of the board
- 4** Keep the NC pin of the DHT 11 unconnected

Software Overview

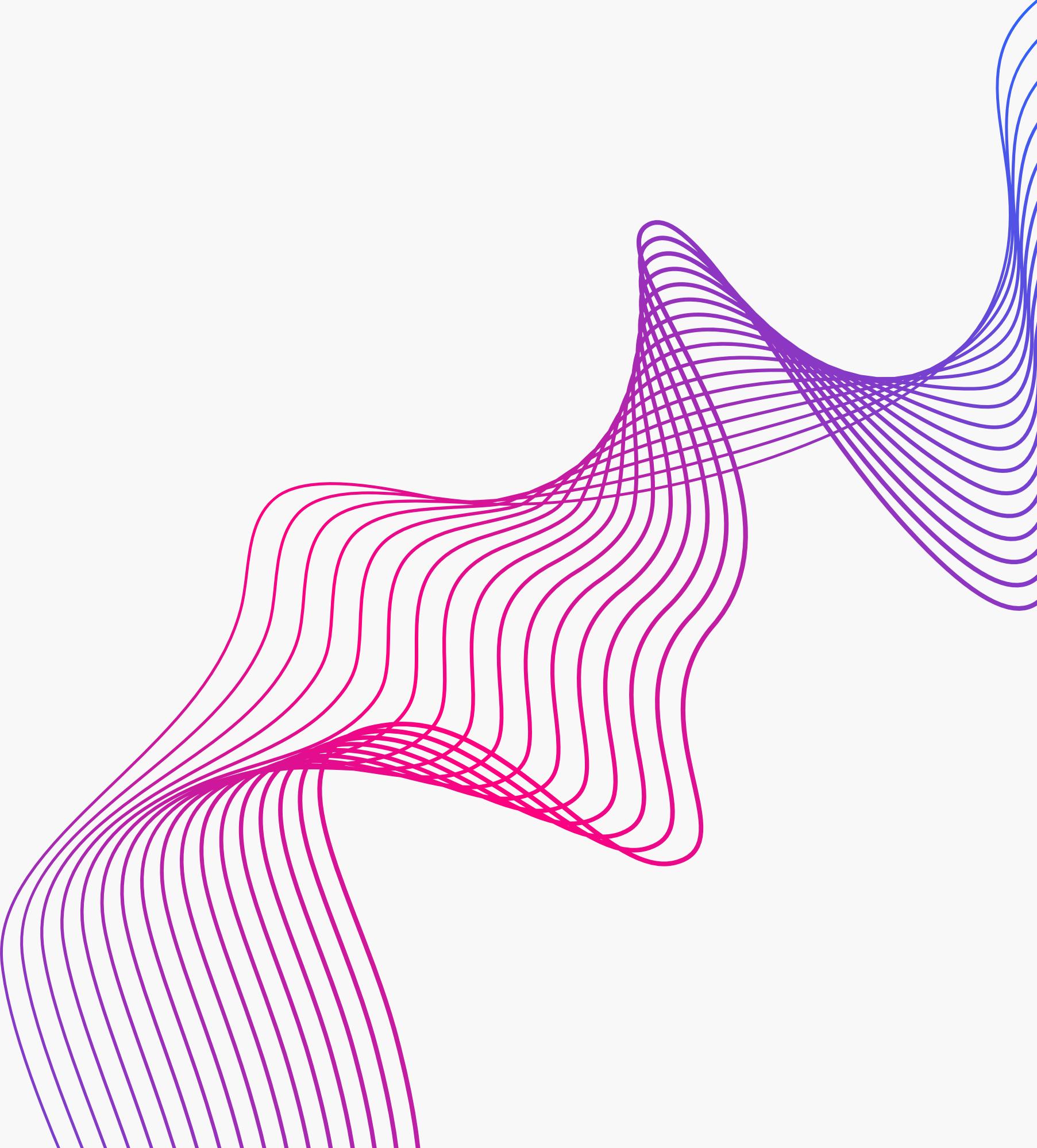
Arduino IDE

1. DHTPIN
2. DHTTYPE
3. Baud Rate
4. Setup Function
5. Loop Function
6. isNaN Function
7. Libraries

Testing and Troubleshooting

Common Issues:

- Wiring
- Calibration
- Syntax Errors
- Logical Errors
- Library Compatibility



DEMONSTRATION



Conclusion

Project Recap:

- Real-Time Monitoring
- Data Accuracy
- Troubleshooting Skills

Key Learning:

- Arduino Programming
- Sensor Integration
- IoT Concepts



◀ REFERENCES:

·<https://subsequent-friday-236.notion.site/Minor-Project-Ideas-B-Sc-2023-21-24-Batch-81c0db942ae74406a07ea6037be224be?pvs=4>

·<https://subsequent-friday-236.notion.site/97786e10c17945a2a5c400e152b45dce?v=1f943a20ad08446b87bd725f210be70c>

THANK YOU

