

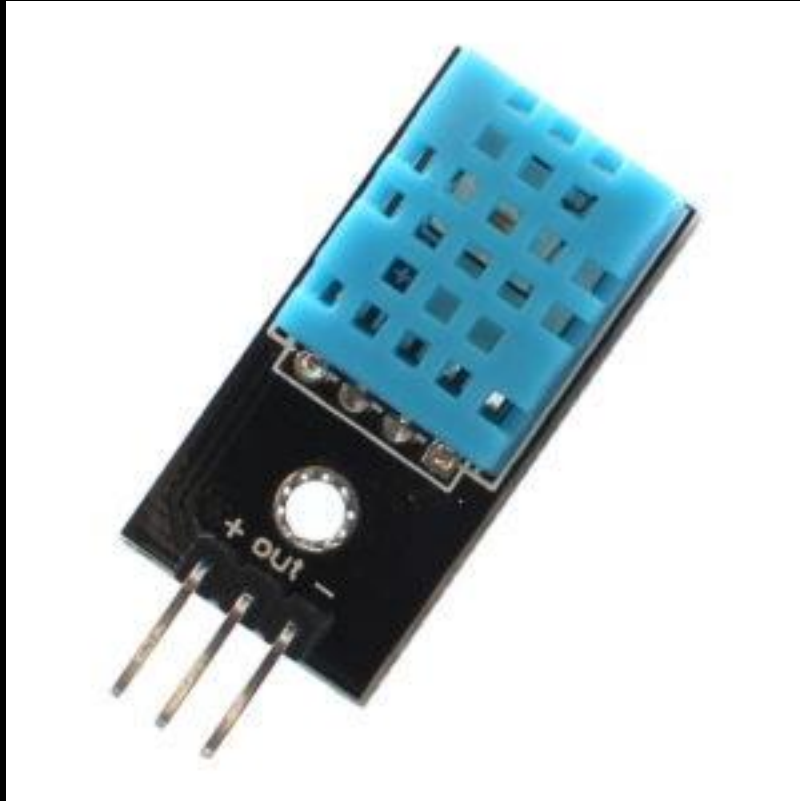
Cyber Physical System for Environmental Monitoring and Crop Prediction

PROJECT MANUAL

Components Needed

- DHT11
- DHT Adafruit Library
- Raspberry Pi
- Python Compiler
- Bread Board or Universal Soldering Board
- Jumper Wires
- Python Special Libraries
- Micro SD Card and SD card Reader
- Raspbian OS Image and Imager Software

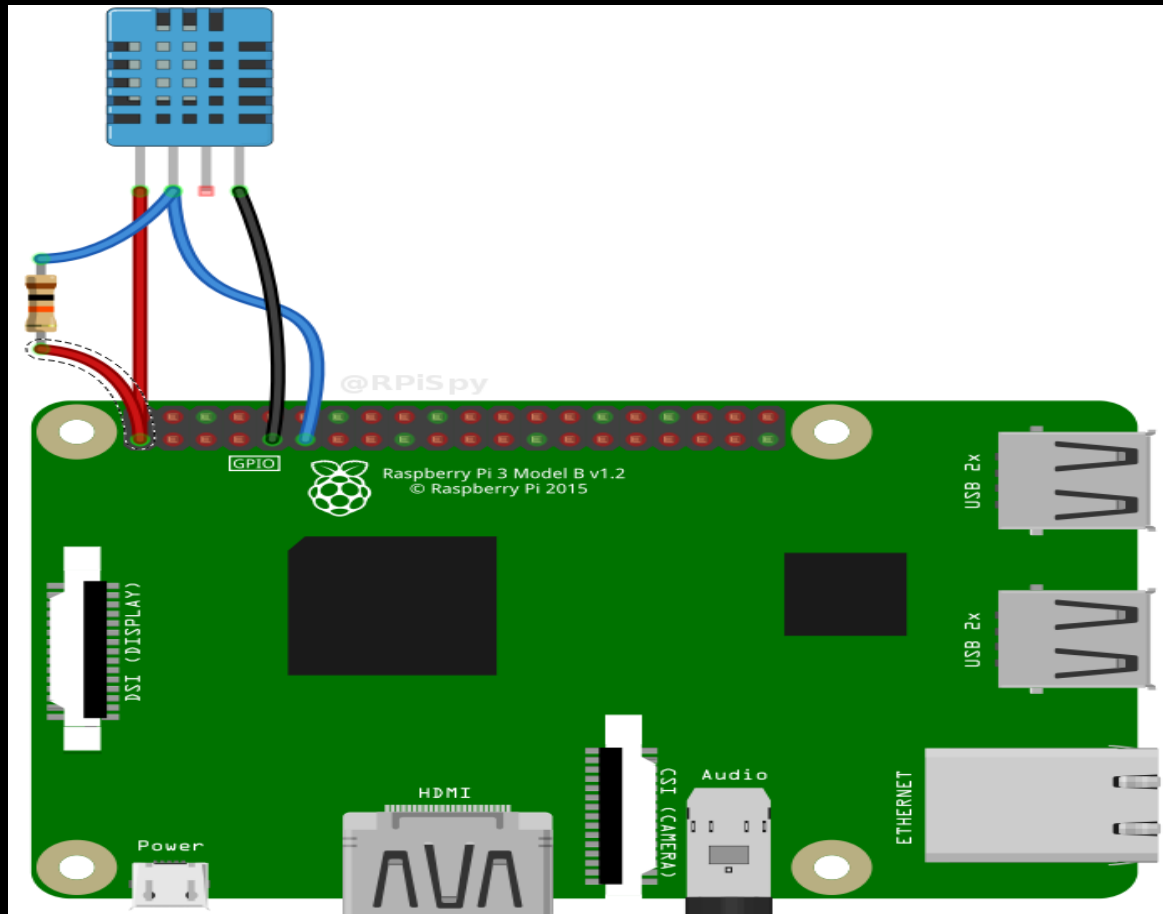
DHT11 (Some have 4 Pins it doesn't matter)



Raspberry pi Connection

DHT Pin	Signal	Pi Pin
1	3.3V	1
2	Data/Out	11 (GPIO17)
3	not used	–
4	Ground	6 or 9

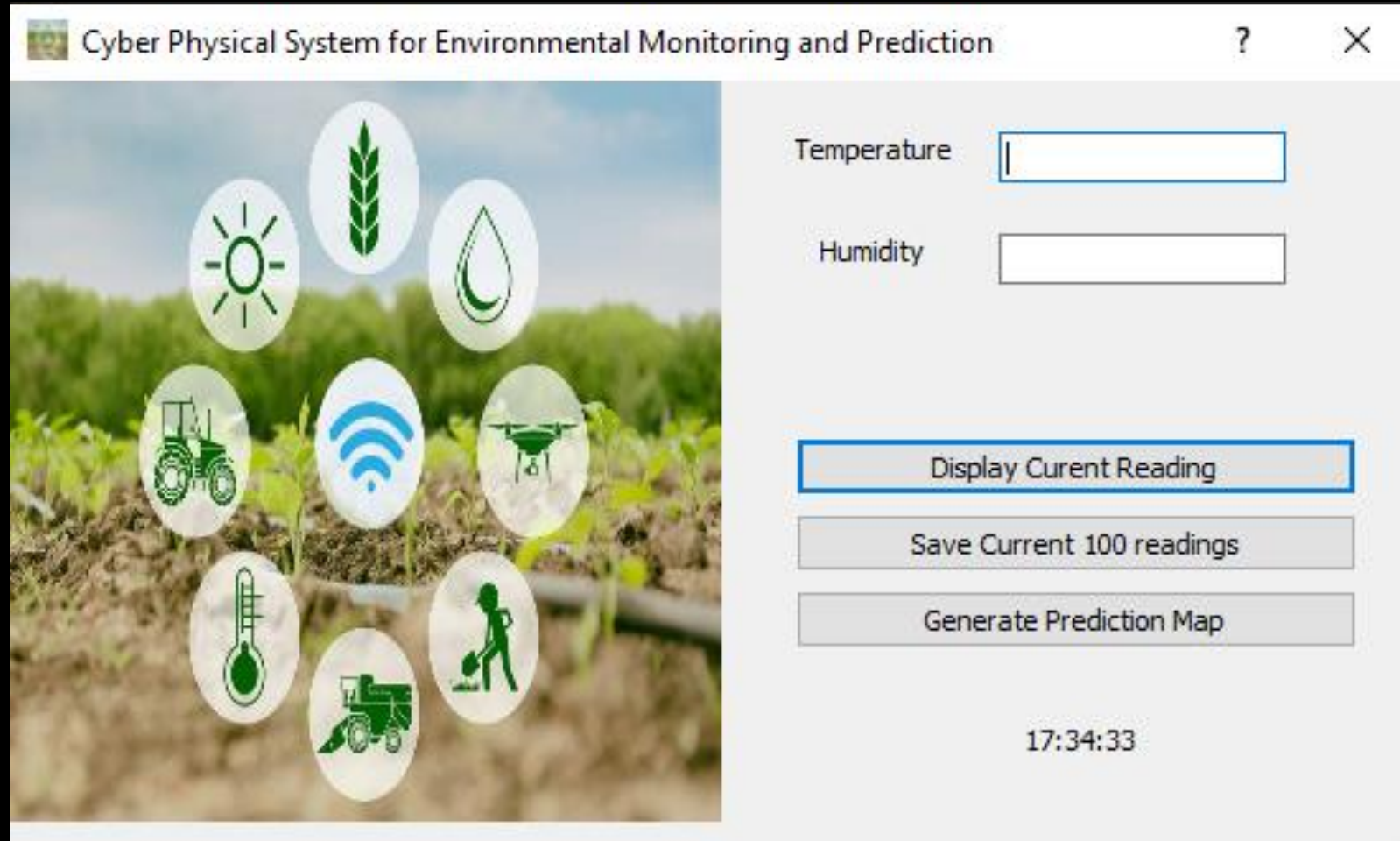
Raspberry Pi Connection



Software Setup

- Unzip Cybernetics_Rpi.rar
- Open Terminal and go to `/Cybernetics_Rpi/` using `cd` cmds.
- Type `chmod +x setup.sh` and press Enter.
- Now type `./setup.sh` and press Enter and wait for the Installation.
- Now run `Cyber Physical System.py`

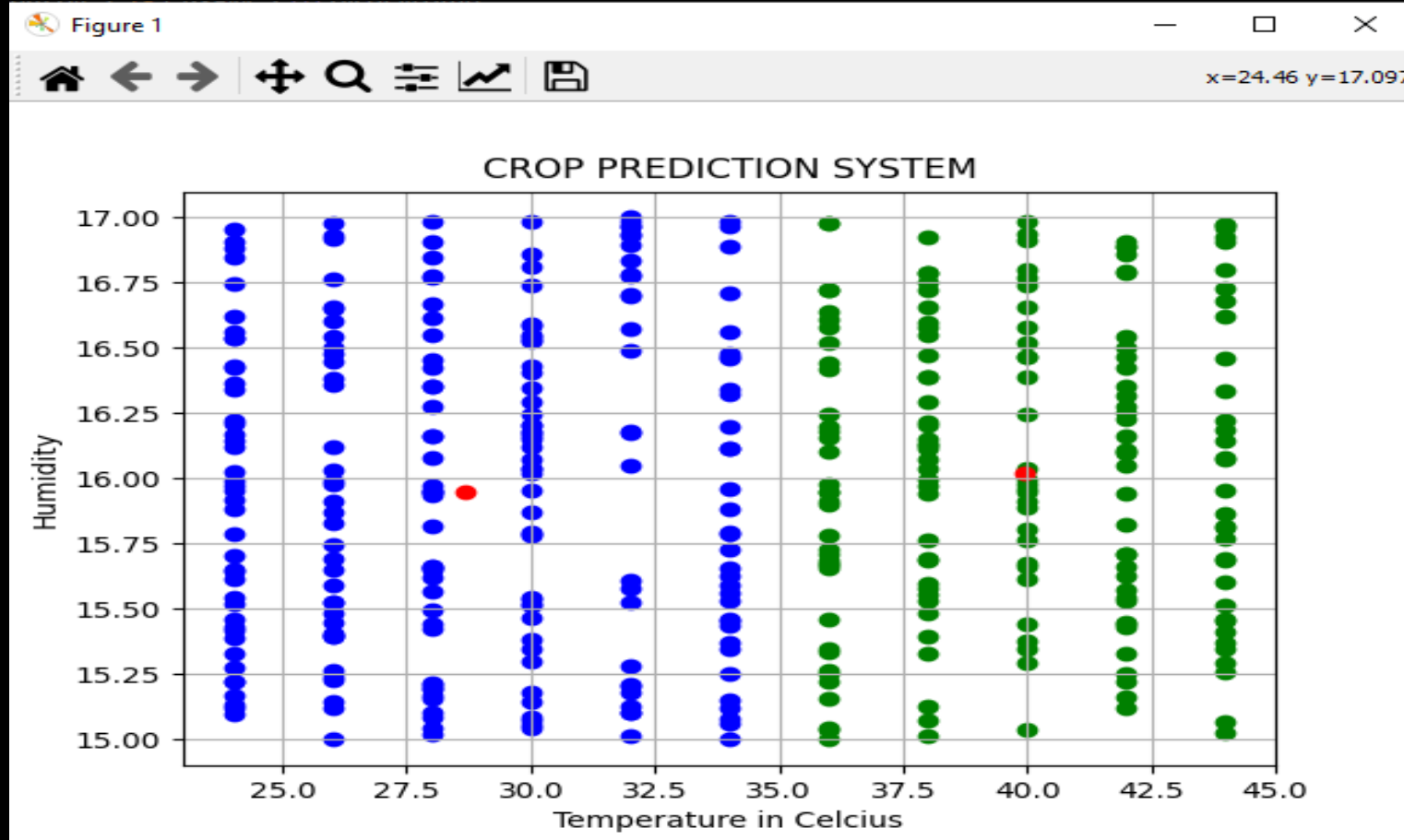
Software Preview



Button Operations

- Click **Display Current Reading** to Get Current Reading.
- Click **Save Current 100 Readings** to save current 100 readings to **/Data_Schema_Node/ SensorData.csv**.
- Click **Generate Prediction Map** to see the prediction Map.

Prediction Map Sample Output



Thanks.
Dvlpr ☺

