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| Intelligent Greenhouse Monitor  Bhavik Shah | Prof. A. Jubilson  Motivation/ Introduction Results | |
| The Intelligent Greenhouse Monitor is for the people who love gardening but do not get enough time to focus on it. The other objective achieved through this project is that we learned about Raspberry Pi, python coding and different modules used in this project. | * Final project was ready in the short period of 3 weeks. * And the final hardware looked as shown in the image. * **Speed of Execution –** It was very fast. For now, to show that code is being executed we have added a break statement so that we exit the loop, otherwise it can run for any required amount of time. |
| SCOPE of the Project |
| This project has a lot of future scope. This project can be advanced to a huge level and by huge, I mean over acres of land.  We can use DC motor to build a watering system, implement different sensors which measure the heat, cold, humidity and so on. Then for the management purposes, we can link all the data obtained from the sensors to a MySQL database and link them up with a website or an app. |
| Methodology |
| * We started by prototyping the first code for our project which just checked if the LDR sensor was working or not. * Then we moved on to creating the code for YL-69 sensor which measures the moisture in the soil. * Both, YL-69 and LDR were linked to MCP3008 chip which converted their analog outputs to digital inputs for the Raspberry Pi board. * Then we developed a code for the DHT-11 sensor which detects the humidity and temperature. It was done differently because it gives digital output and so it can be directly linked to a GPIO pin on the board. * To show the functioning, we have implemented the Pi board to give us the output “Data is good” for each sensor for positive values of humidity, temperature and light.   . |
| References |
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| o https://tutorials-raspberrypi.com/build-your-greenhouse  [o https://pimylife.com/raspberry-pi-light-sensor](https://www.arduino.cc/en/Products/Compare)  [o https://opensourceforu.com/2016](https://www.w3schools.com/js/)/10/programming-raspberrypi-with-python  [o https://www.raspberrypi.org/documentation/usage](https://www.w3schools.com/css/)/python  [o https://www.instructables.com/id/Soil-Moist](https://www.w3schools.com/html/)ure-Sensor  [o https://www.electr](https://www.w3schools.com/jquer/)onicshub.org/raspberry-pi-dht11-humidity-temperature-sensor-interface/ |
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