

References

equipment supplier

- **Soil Moisture Sensor**
<https://www.myarduino.net/product/47/%E0%B9%80%E0%B8%8B%E0%B8%99%E0%B9%80%E0%B8%8B%E0%B8%AD%E0%B8%A3%E0%B9%8C%E0%B8%A7%E0%B8%B1%E0%B8%94%E0%B8%84%E0%B8%A7%E0%B8%B2%E0%B8%A1%E0%B8%8A%E0%B8%B7%E0%B9%89%E0%B8%99%E0%B9%83%E0%B8%99%E0%B8%94%E0%B8%B4%E0%B8%99-soil-moisture-sensor-module-v1>
- **Relay Module 5V 4 Channel**
<https://www.myarduino.net/product/6/%E0%B8%9A%E0%B8%AD%E0%B8%A3%E0%B9%8C%E0%B8%94-relay-4%E0%B8%8A%E0%B9%88%E0%B8%AD%E0%B8%87-5v-arduino-relay-module-5v-4-channel-isolation-control-250v-10a>
- **ESP32S NodeMCU**
<https://www.myarduino.net/product/2747/esp32s-nodemcu-esp-wroom-32-wi-fi-and-bluetooth-module-dual-core-consumption-auto-upload-38p>
- **water pump**
<https://www.myarduino.net/product/4052/%E0%B8%9B%E0%B8%B1%E0%B9%8A%E0%B8%A1%E0%B8%99%E0%B9%89%E0%B8%B3-usb-%E0%B8%82%E0%B8%99%E0%B8%B2%E0%B8%94%E0%B9%80%E0%B8%A5%E0%B9%87%E0%B8%81-3-5v-pump-mini-micro-water-pump-%E0%B8%A3%E0%B8%B9-2-%E0%B8%97%E0%B8%B2%E0%B8%87-%E0%B8%AA%E0%B8%B5%E0%B8%82%E0%B8%B2%E0%B8%A7>

Software

- **Arduino**
<https://www.arduino.cc/en/software>
- **MQTT**
<https://www.cloudmqtt.com/>

Resources

- **Arduino Firmware Code**
<https://www.myarduino.net/>
- **MQTT**
<https://www.facebook.com/search/top/?q=pin-courses>