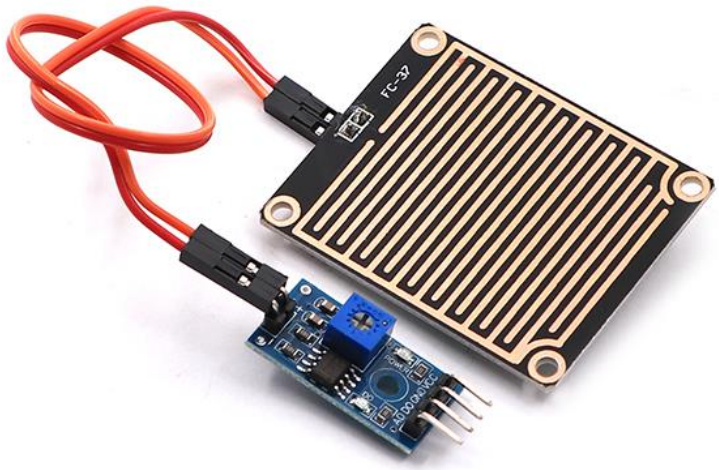
Arduino Rain Sensor Module



Description:

Raindrop sensor is basically a board on which nickel is coated in the form of lines. It works on the principal of resistance.
Rain Sensor module allows to measure moisture via analog output pins and it provides a digital output when a threshold of moisture exceeds.
The module is based on the LM393 op amp. It includes the electronics module and a printed circuit board that "collects" the rain drops. As rain drops are collected on the circuit board, they create paths of parallel resistance that are measured via the op amp.
The sensor is a resistive dipole that shows less resistance when wet and more resistance when dry. When there is no rain drop on board it increases the Resistance so we gets high voltage according to V=IR.
When rain drop present it reduces the resistance because water is a conductor of electricity and presence of water connects nickel lines in parallel so reduces resistance and reduces voltage drop across it.

Specifications:

- Adopts high quality of RF-04 double sided material.
- Anti-oxidation, Anti-conductivity, with long use time.
- Area: 5cm x 4cm nickel plate on side.
- Comparator output signal clean waveform is good, driving ability, over 15mA.
- Potentiometer adjust the sensitivity.
- Working Voltage: 5V.
- Output Format: Digital switching output (0 and 1) and analog voltage output AO.
- With bolt holes for easy installation.
- Small Board PCB size: 3.2cm x 1.4cm.
- Uses a wide voltage LM393 comparator.

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