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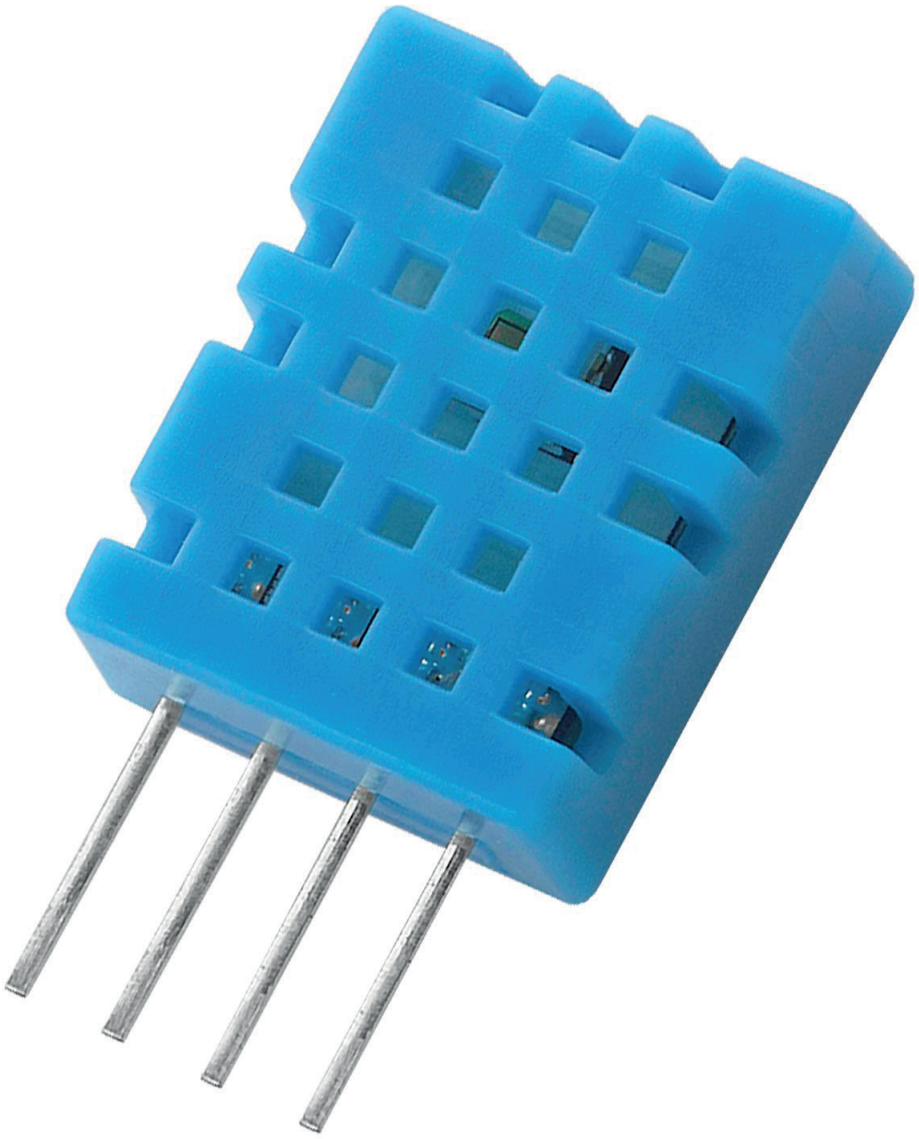
Ihr Experte für Mikroelektronik!

DHT11 Temperatursensor Datenblatt

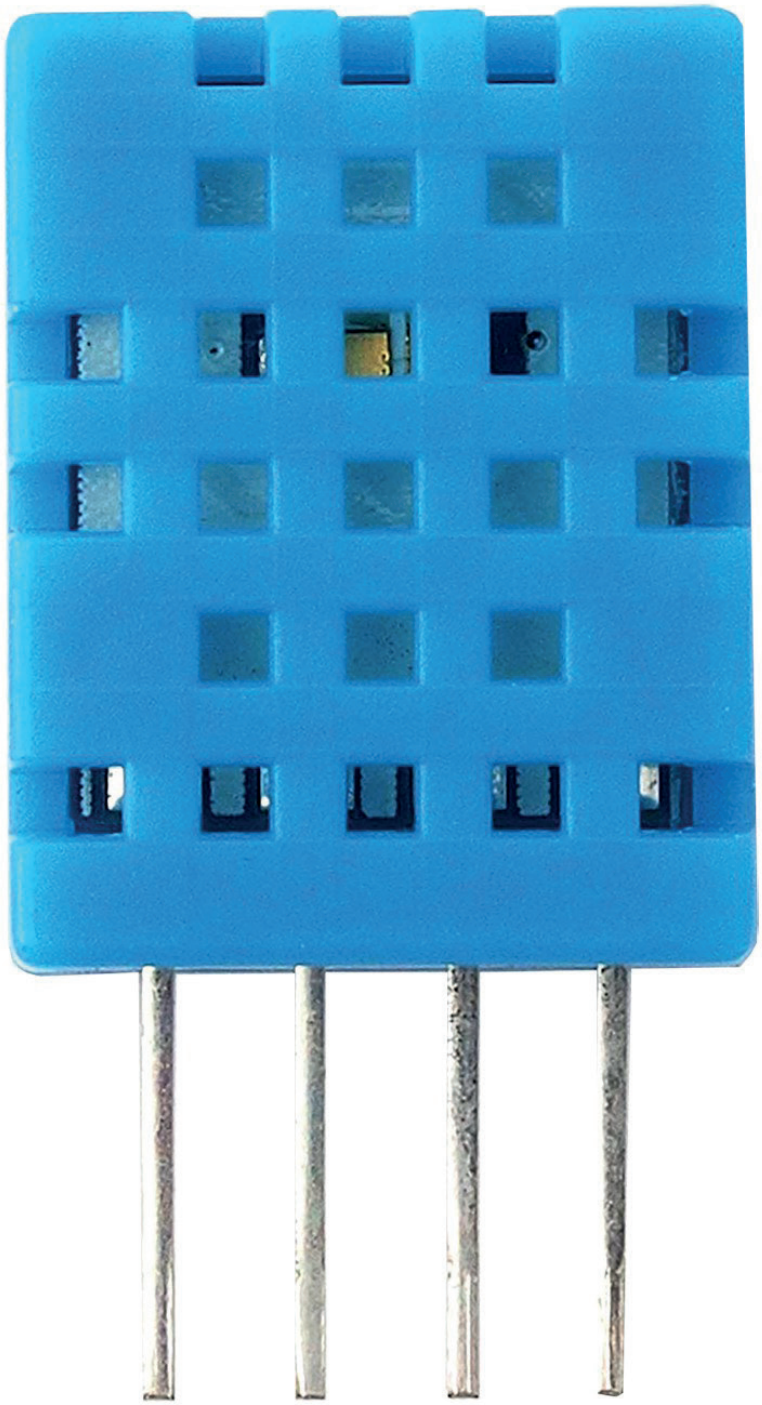


Content:

1. Specifications

Operating Voltage	3V to 5V
Max Operating Current	2.5mA max
Humidity Range	20% - 90% with accuracy of 5%
Temperature Range	0°C - 50°C with accuracy of ±2°C
Sampling Rate	1Hz (reading every 1s)
Dimensions	15mm x 32mm x 9mm

2. Pinout



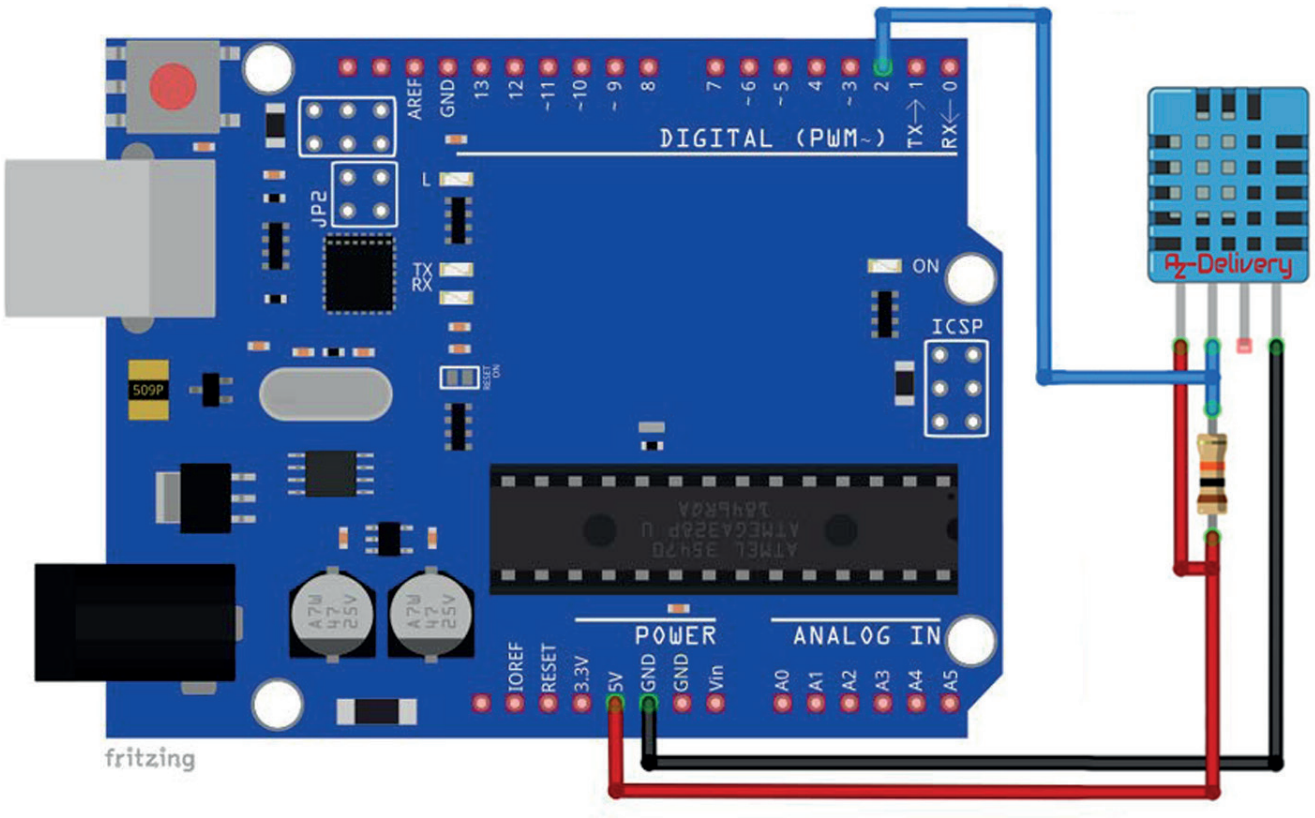
"VCC" pin - supplies power for the sensor. Although supply voltage can range between 3.3V and 5.5V, 5V supply is recommended. In case of 5V power supply, you can use cable that connect sensor and microcontroller as long as 20 meters. However, with 3.3V supply voltage, cable length shall not be greater than one meter. Otherwise, the line voltage drop will lead to errors in measurement.

"DATA" pin - is data pin, and is used to communication between the sensor and the microcontroller.

"NC" pin - is Not Connected pin.

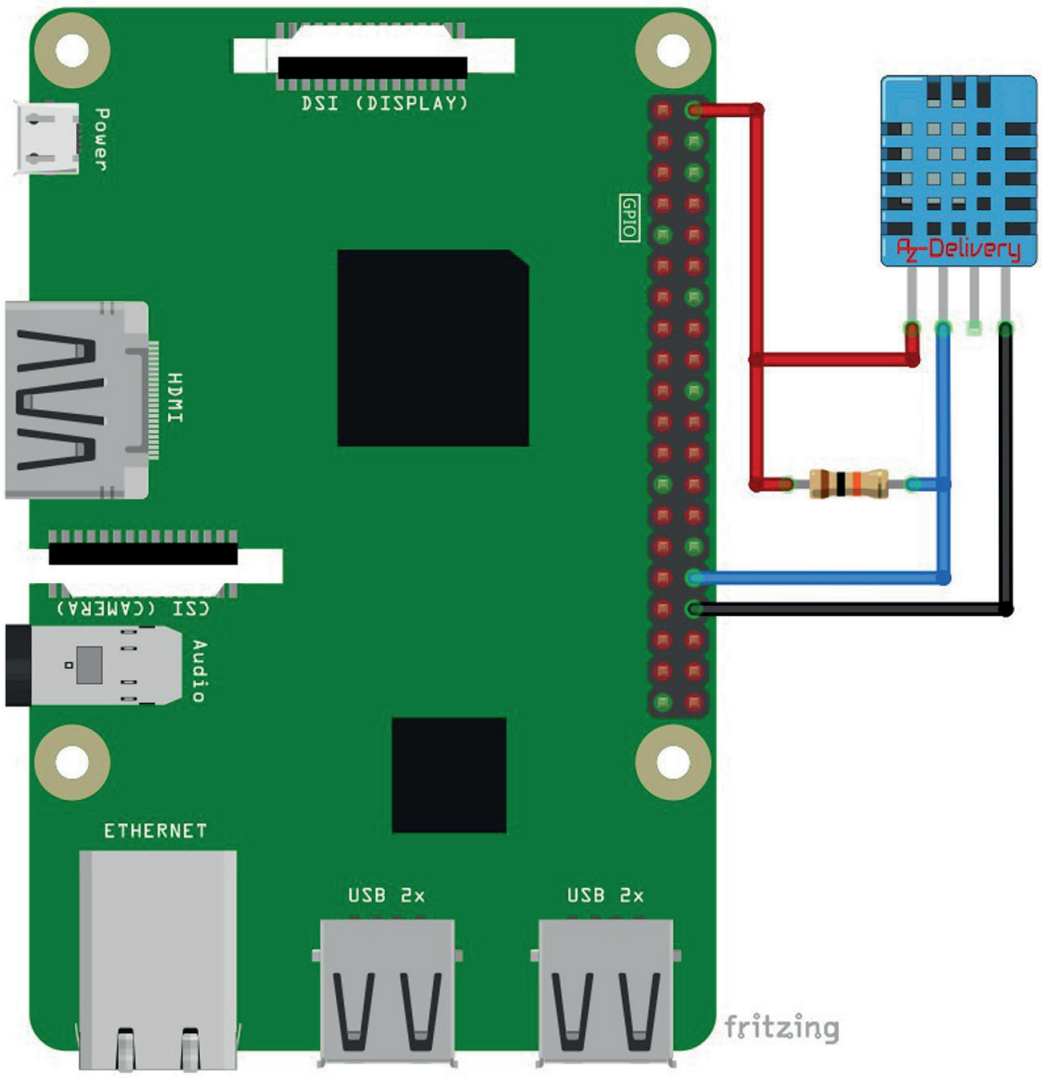
"GND" pin - is ground pin and should be connected to the common ground, or 0V.

3. Connection Diagram



Sensor Pin	Microcontroller Pin	Wire Color
VCC (First Pin)	5V	Red Wire
DATA (Second Pin)	D2	Blue Wire
NC (Third Pin)	Not Connected	
GND (Fourth Pin)	GND	Black Wire

10kΩ PULL UP resistor between second pin and 5V is needed!!!



Sensor Pin	Microcontroller Pin	Physical Pin	Wire Color
VCC	5V	Pin 2	Red Wire
DATA	GPIO12	Pin 32	Blue Wire
GND	GND	Pin 30	Black Wire

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