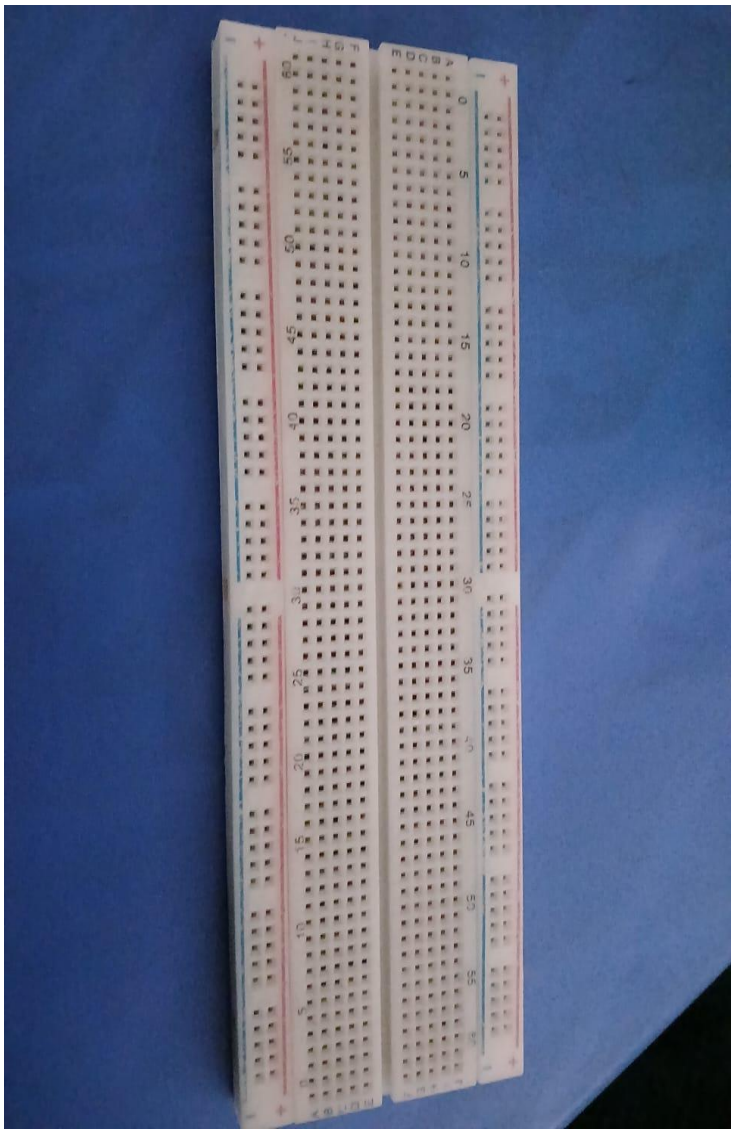
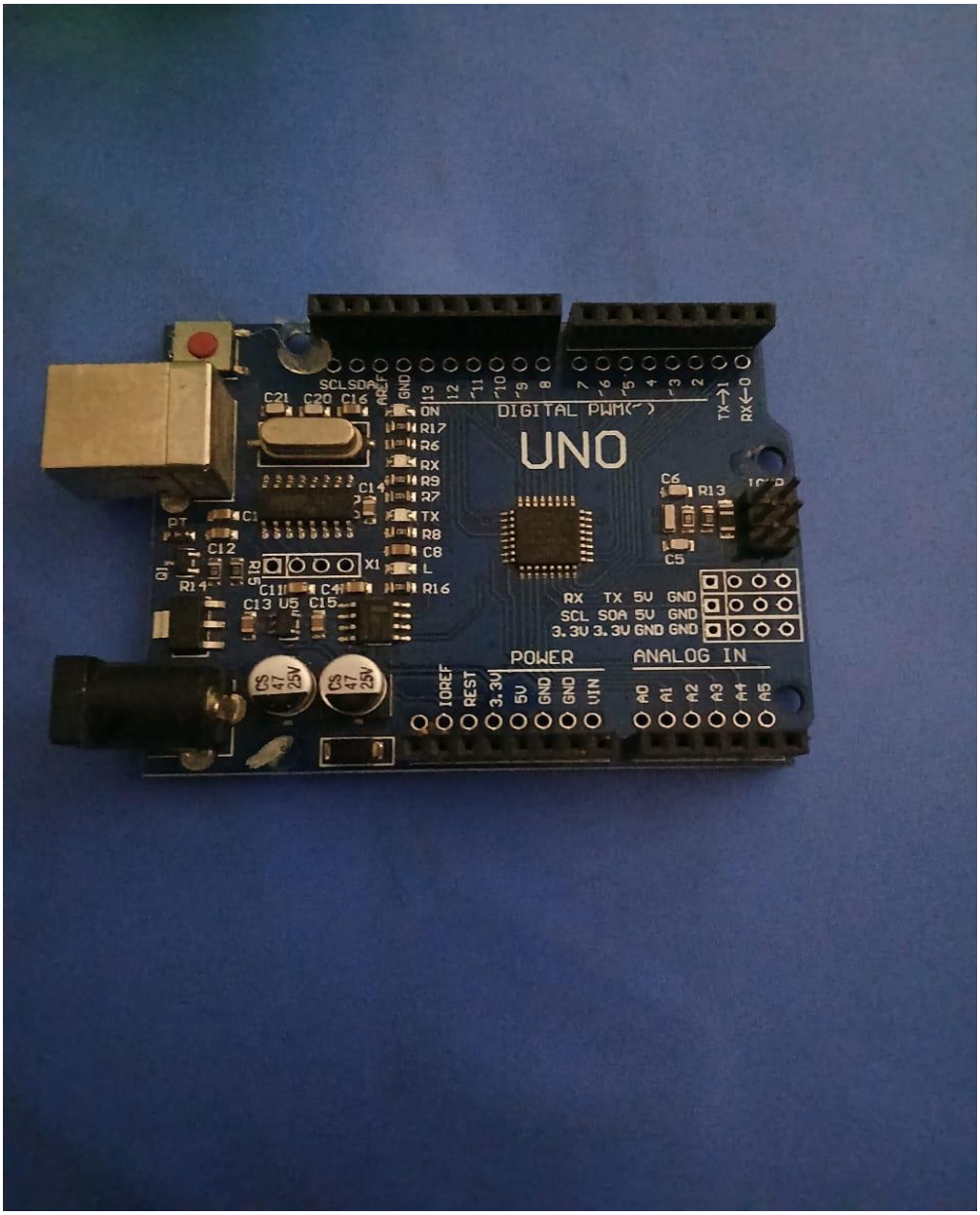
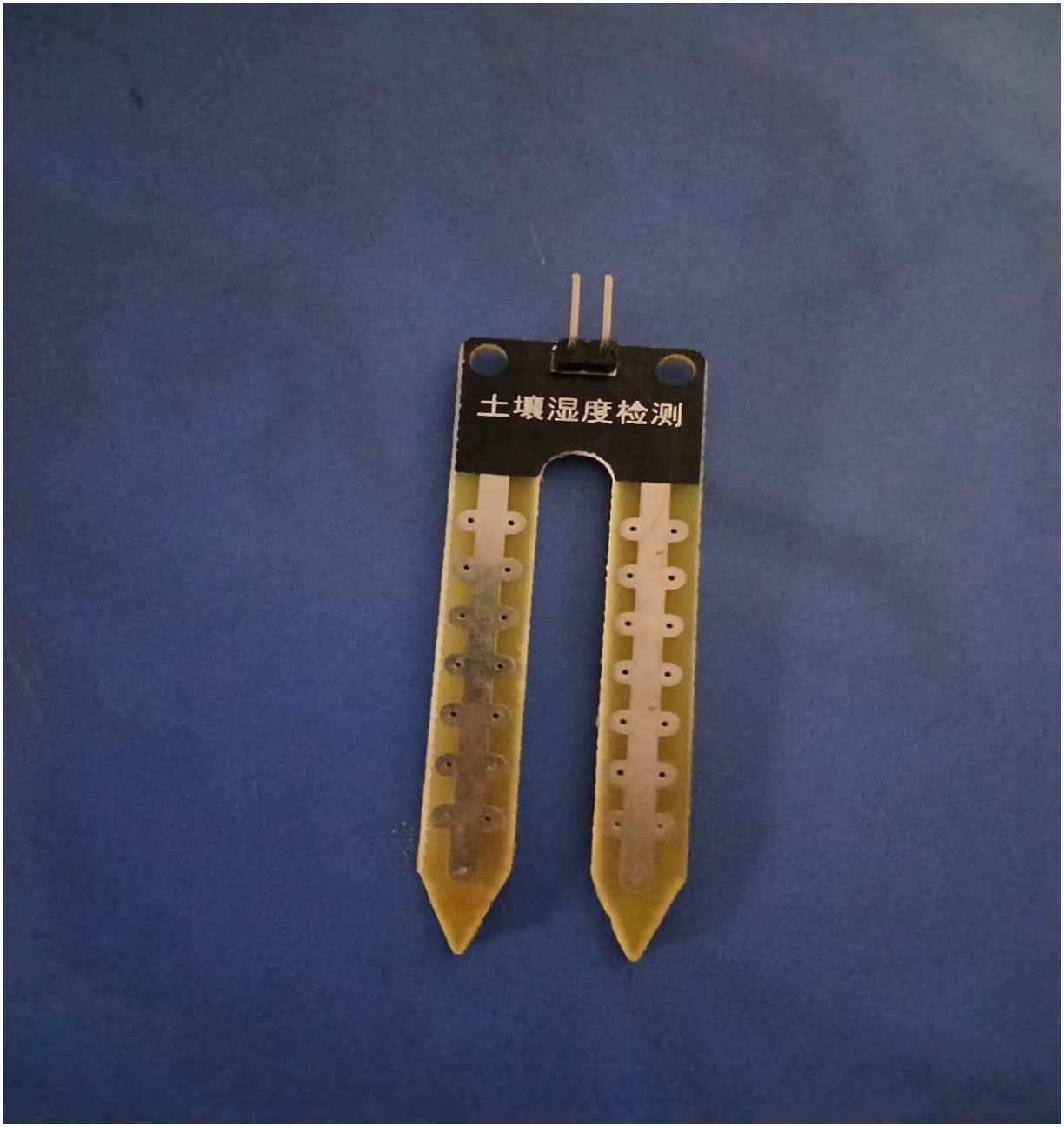
Introduction To IOT Devices



A **breadboard** is a reusable platform for building and testing electronic circuits without soldering. It features power rails and terminal strips to easily connect components like resistors, LEDs and ICs. Breadboards are widely used for prototyping, debugging, and learning electronics due to their simplicity and reusability. They are ideal for low-current circuits but may not suit high-frequency or high-power applications.



The **Arduino Uno** is a popular microcontroller board based on the ATmega328P.It features 14 digital input/output pins, 6 analog inputs, and a USB interface for programming and power. The board supports a wide range of sensors and actuators making it ideal for prototyping and learning embedded systems. Its open-source nature and user-friendly design make it a cornerstone in DIY projects and IoT applications.



A **humidity sensor** is an electronic device used to measure the moisture content in the air, often expressed as relative humidity. It operates by detecting changes in electrical properties like capacitance or resistance in response to humidity levels. These sensors are widely used in weather monitoring, industrial processes and smart home applications. They are compact, reliable and crucial for systems requiring precise environmental control.