

# **Robotics with Arduino**

**"Hello, students!**

**Today, we are going to open a super fun Robotics with Arduino kit!**

**Are you ready to become little engineers? Let's go!"**

**By using our Arduino kit, we can prepare our few amazing projects like,**

- Automatic light system**
- Fire Alarm System**
- Touch-activated LED light**
- Mini fan with control**



**"First, we have a Power Supply Board – this gives power to all our cool gadgets!"**



**"Look! We have shiny 3LED lights – they glow so bright!"**



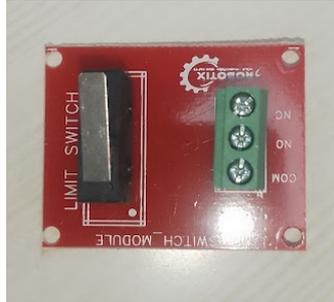
**“And here’s a Potentiometer – it’s like a knob that controls things either brightness of LED’s or Volume of a Buzzer!”**



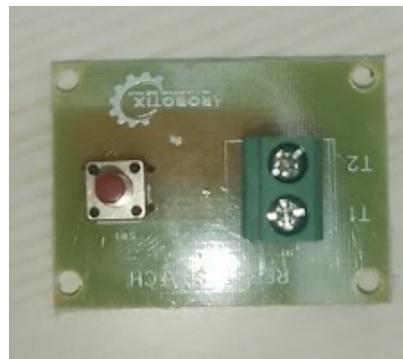
**"We also have Push Buttons- press them to turn things on and off**



**Here are our Switches. Limit switch-  
It stops something when it touches!  
Just like robot bumpers!**

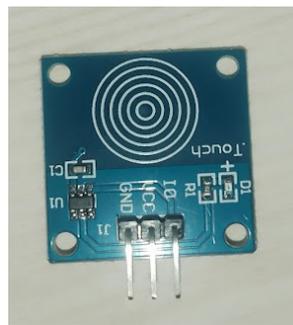


**Reset Switch- presses it to start  
again, like to restart button in a  
game.**



**"Wait! What's this? A Sensor –it  
detects light, fire, or even when you  
touch it!"**

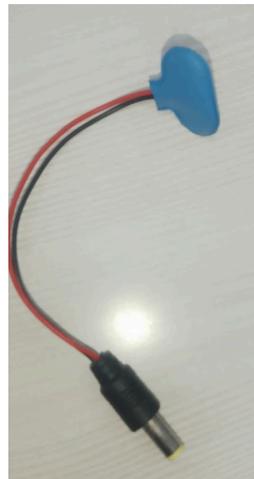
**We have 4 sensors they are IR sensor, a Touch sensor, a flame sensor, and a LDR sensor.**





**"Wow! A tiny Screwdriver just for us,  
and a HW Battery with a connector  
to give everything energy!"**





**"There are also Motor and Wheel – now we can make things move!"**



**"Look at the Fan – we can make it spin with our circuits!"**



**"But wait, there's more!"**

**We also have:**

**An LCD screen with I 2 C module to show messages,**



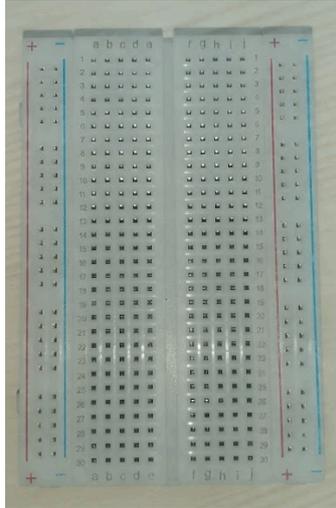
**A Soil Moisture Sensor to check if the plant needs water,**



**An Ultrasonic Sensor to measure distance,**



**And a Breadboard – where we connect all the components in a desired way!"**

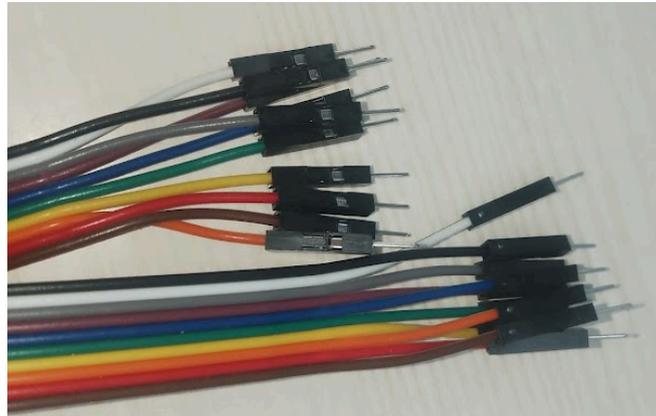


**"Here's a Dump Cable – this helps us upload code from the computer to the Arduino UNO!"**



**And Male-to-Male Jumper Wires – these help us connect all the parts**

**together neatly on the breadboard!"**



**"And the most important – an Arduino UNO Board!**

**This is like the brain of all our projects!"**





**"With these parts, we can build amazing things – robots, lights, alarms, and more!"**



**"Let's start building and have lots of fun learning electronics!"**

**Yay! Let's become mini makers! 🤖 ✨**