



## KS0487 Keyestudio 37 in 1 Sensor Kit upgrade v3.0

### Description:

This is an era of artificial intelligence. Artificial intelligence is everywhere and has been integrated into our lives, especially for all kinds of robots. To understand the robot, we should understand the control system of the robot. The microcontroller we learn is equivalent to the brain of the robot. The various sensors installed on the robot are their eyes, noses, mouths, ears and so on. To make it easier for beginners to understand these principles, Keyestudio has released the 3.0 version of the sensor kit, which includes digital and analog sensors as well as special modules such as ultrasound, digital tubes, temperature and humidity. For each module, there is a clear connection diagram and sample code. So it's easy to operate even you are a newbie.

The sample code of this sensor suite is based on ARDUINO because it is open source and easy to use. If you're good at it, you can also apply this kit to other development platforms such as 51, STM32, Raspberries Pi, micro:bit, the working principle of those platforms is almost same. Now let's enter the world of robotic sensors and learn together!

### Projects List:

- Project 1: White LED
- Project 2: RGB LED
- Project 3: Traffic Light
- Project 4: Buzzer Beeping
- Project 5: Passive Buzzer
- Project 6: Motor Module
- Project 7: Digital Push Button
- Project 8: Collision Flash
- Project 9: Line Tracking
- Project 10: Infrared Obstacle Avoidance
- Project 11: Photo Interrupter
- Project 12: Hall Magnetic
- Project 13: Knock Sensor
- Project 14: Digital Tilt Sensor
- Project 15: Capacitive Touch
- Project 16: Flame Alarm
- Project 17: Reed Switch
- Project 18: PIR Motion Sensing
- Project 19: Analog Temperature
- Project 20: Analog Rotation
- Project 21: Photocell
- 3.22Project 22: Analog Sound
- Project 23: Water Level
- Project 24: Soil Moisture
- Project 25: Steam Moisture
- Project 26: Analog Ceramic Vibration
- Project 27: Voltage Detection
- Project 28: Digital IR Receiver
- Project 29: Digital IR Transmitter
- Project 30: Pulse Rate Monitor
- Project 31: Joystick
- Project 32: Rotary Encoder
- Project 33: Single Relay
- Project 34: Linear Temperature
- Project 35: Temperature and Humidity Display
- Project 36: Ultrasonic Ranger
- Project 37: 4-digit LED Display

**Resources:** [https://wiki.keyestudio.com/KS0487\\_Keyestudio\\_37\\_in\\_1\\_Sensor\\_Kit\\_upgrade\\_v3.0](https://wiki.keyestudio.com/KS0487_Keyestudio_37_in_1_Sensor_Kit_upgrade_v3.0)