



## Introduction - KS0076

This advanced study kit for aduino will walk you through the basics of using the Aduino in a hands-on way. You'll learn through building several creative projects. The kit includes a selection of the most common and useful electronic components with a book of 28 projects. Starting the basics of electronics, to more complex projects, the kit will help you control the physical world with sensor and actuators.

## Kit list

Keyestudio Mega 2560 R3 board for aduino \*1

LED - Blue \*5

LED - Red \*5

LED - Yellow \*5

LED - RGB \*1

220  $\Omega$  resistor \*8

10K  $\Omega$  resistor \*5

1K  $\Omega$  resistor \*5

10K  $\Omega$  Pot \*1

Buzzer (active) \*1

Buzzer (passive) \*1

Large button switch \*4

Ball tilt sensor \*2

Photo Resistor \*3

Flame sensor \*1

LM35 Temp Sensor \*1

IC 74HC595N 16-pin DIP \*1

7-seg LED 1x module \*1

7-seg LED 4x module \*1

8\*8 LED Matrix\*1

2x16 LCD display\*1

IR receiver \*1

IR remote control \*1

Servo Motor \*1

Stepper driver module \*1

Stepper Motor \*1

Joystick module \*1

Relay module \*1

PIR Motion Sensor \*1

Analog Gas Sensor \*1

ADXL345 Three Axis Acceleration Module \*1

HC-SR04 Ultrasonic Sensor\*1

Pin headers \*40

830 hole Breadboard \*1

Dupont connector wires \*10

Jumper Wire\*30

6-cell AA Battery pack \*1

USB cable \*1

<b>Project list:</b>	
1: Hello World 2: LED blinking 3: PWM 4: Traffic light 5: LED chasing effect 6: Button-controlled LED 7: Active buzzer 8: Passive buzzer 9: RGB LED 10: Photo resistor 11: Flame sensor 12: LM35 temperature sensor 13: Tilt switch 14: IR remote control	15: Analog value reading 16: 74HC595 17: 1-digit LED segment display 19: 8*8 LED matrix 20: 1602 LCD 21: 9g servo control 22: 5V Stepper Motor 23: PIR Motion Sensor 24: Analog Gas Sensor 25: ADXL345 Three Axis Acceleration Module 26: HC-SR04 Ultrasonic Sensor 27: Joystick Module 28: 5V Relay Module

For more details:

[http://wiki.keyestudio.com/index.php/Ks0074\(75, 76\) keyestudio Advanced Study Kit for Arduino](http://wiki.keyestudio.com/index.php/Ks0074(75,76)_keyestudio_Advanced_Study_Kit_for_Arduino)

Video

<http://www.keyestudio.com/wp/ks0074-75-76/>

PDF

<https://drive.google.com/open?id=1BMSIJjeI5s24FMuGKW5GC7x24gaZ8XXj>