V5 Sensor Expansion Shield

Introduction

The V5 sensor shield is very useful as a connection point for the many interfaces you can plug into the Arduino. Using just the Arduino, you very quickly run out 0V and +5V connections for your sensors. Using a sensor shield gives you one +5V (Vcc) and one 0V (Gnd) for every Arduino signal pin.
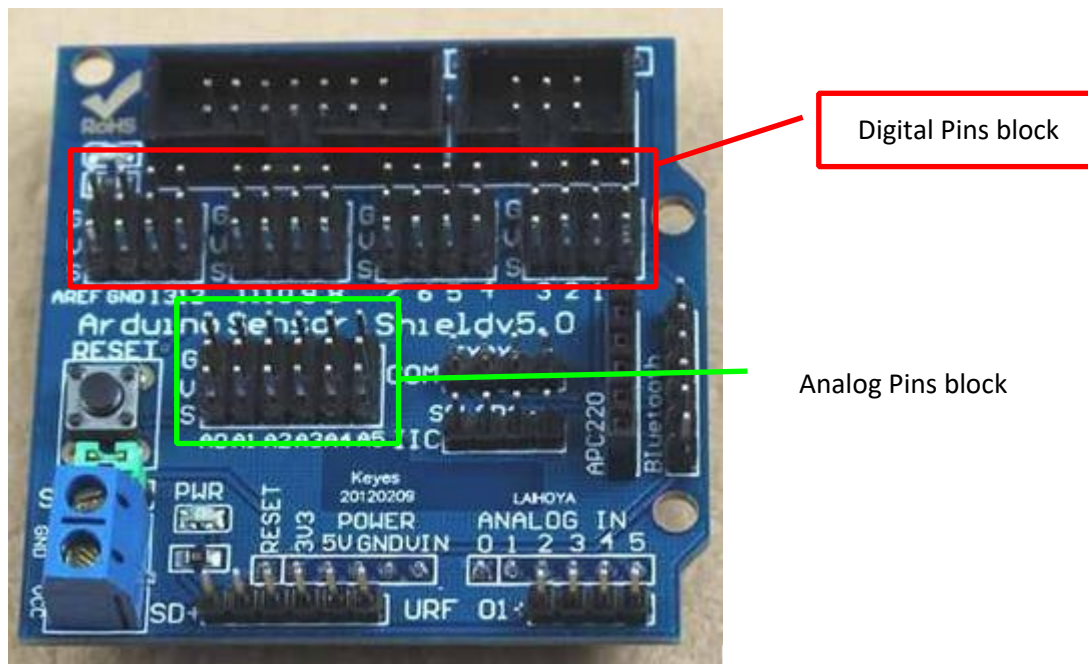
Sensor Shield V5

Digital Pins block

Analog Pins block

Figure 1: Sensor Shield V5.0

Digital Pins

The pins are arranged in stacks of 3:

Top = **G**nd (0V)

Middle = **V**cc(+5V)

Bottom = **S**ignal (Arduino Digital Signal Pin No.)

The pins are sequenced from right to left clearly marked on the board:

G			Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
V			Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc
S	Aref	Gnd	13	12	11	10	9	8	7	6	5	4	3	2	1	0

Analog Pins

The pins are arranged in stacks of 3:

Top = **G**nd (0V)

Middle = **V**cc(+5V)

Bottom = **S**ignal (Arduino Analog Signal Pin No.)

The pins are sequenced from left to right clearly marked on the board:

G	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
V	Vcc	Vcc	Vcc	Vcc	Vcc	Vcc
S	A0	A1	A2	A3	A4	A5

13 Pin LED

12864 LCD Parallel Interface

12864 LCD Serial Interface

D13 D12 D11 D10 D9 D8 D7

VCC GND D2 D3 D4 D5 D6

VCC GND

D4 D3 D2

GND VCC D1 D0

APC220 Wireless Module Interface

Digital IO Ports D0~D13

GND VCC Sinal

Analog IO Ports A0~A5

GND VCC Sinal

LCD-Parallel

LCD-Serial

AREF GND 13 12   11 10 9 8   7 6 5 4   3 2 1 0

Arduino Sensor Shield v5.0

RESET

G V S   A0 A1 A2 A3 A4 A5   IIC

RX TX - + COM

SCL SDA - +

APC220

Bluetooth

VCC GND D1 D0 GND 3V3

Bluetooth Interface

RS232 Port

D0 D1 GND VCC

IIC Port

A5 A4 GND VCC

Reset

PWR

RESET

3V3 POWER 5V GND VIN

ANALOG IN 0 1 2 3 4 5

GND VCC

SD +

URF01 +

VCC A0 A1 GND

Ultrasonic Interface

Power LED

SD Card Interface

VCC GND D11 D10 D12

GND 5V

Power