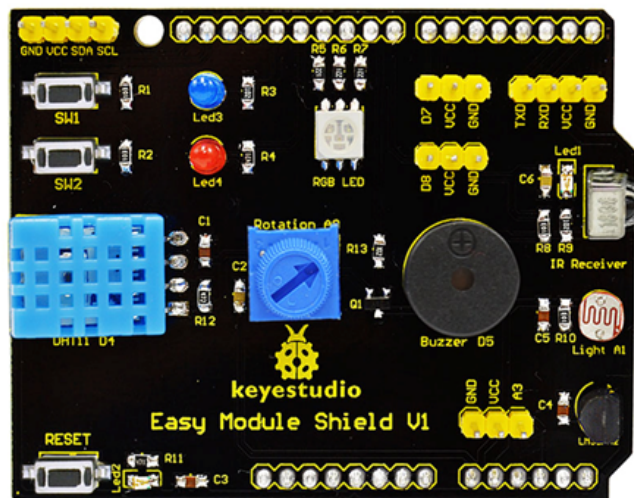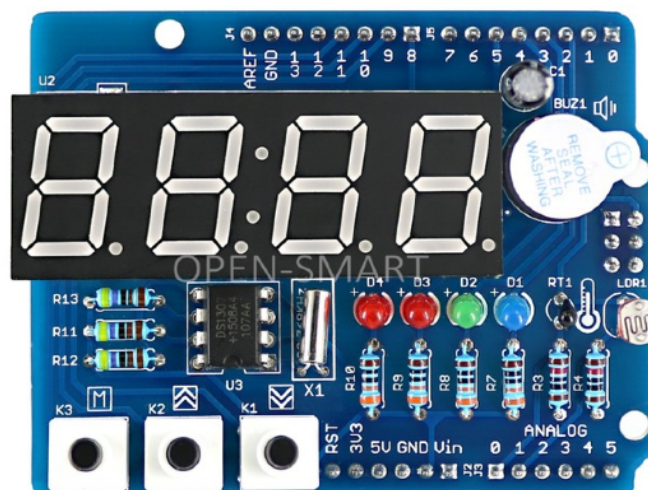# Pinouts for Arduino UNO and Multifunction Shields
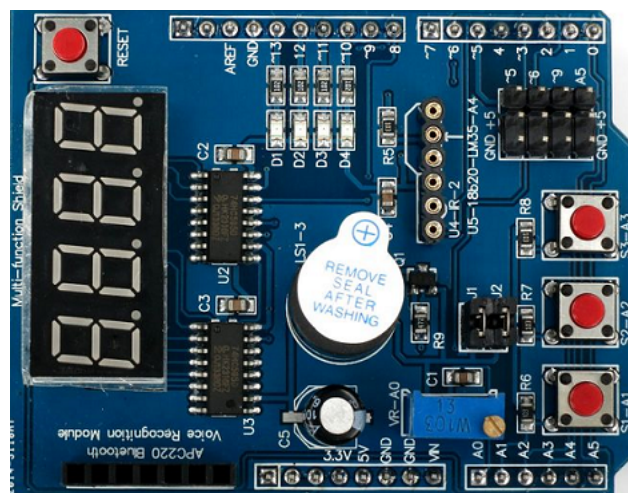
Digital pin (Dn)	Analog pin (An)	AVR pin	AVR port	AVR function(s)	AVR PWM	ProtoShield Plus	Multi-purpose shield V1	RTC shield	Multi-Function shield V2
0		2	PD0	RxD					Bluetooth header - tx
1		3	PD1	TxD				Blue LED	Bluetooth header - rx
2		4	PD2	INT0			Switch	Green LED	IR receiver
3		5	PD3	INT1, OC2B	Yes	Servo header	Switch	Red LED	Buzzer
4		6	PD4	T0, XCK			Humidity sensor	Red LED	7-seg display Pin latch
5		11	PD5	T1	Yes		Buzzer		header
6		12	PD6	AIN0	Yes		IR receiver		header
7		13	PD7	AIN1			header	7-seg display clock	7-seg display clock
8		14	PB0	CLK0, ICP1			header	7-seg display data	7-seg display data
9		15	PB1	OC1A	Yes		Red - RGB LED	K1 switch	
10		16	PB2	OC1B, SS	Yes		Green - RGB LED	K2 switch	Red LED
11		17	PB3	OC2A, MOSI	Yes	Red LED	Blue - RGB LED	K3 switch	Red LED
12		18	PB4	MISO		Green LED	Red LED		Red LED
13		19	PB5	SCK			Blue LED		Red LED
14	0	23	PC0			Switch array	Variable resistor	Temperature sensor	Variable resistor
15	1	24	PC1			Variable resistor	Light sensor	Light sensor	Switch 1
16	2	25	PC2				Temperature sensor		Switch 2
17	3	26	PC3				header		Switch 3
18	4	27	PC4	SDA				RTC I2C SDA	DS18B20 header
19	5	28	PC5	SCL				RTC I2C SCL	header

Uno R3

28	PC5	ADC5	SCL
27	PC4	ADC4	SDA
21	Aref		

GND

19	PB5		SCK	
18	PB4		MISO	
17	PB3	OC2A	MOSI	PWM
16	PB2	OC1B	SS	PWM
15	PB1	OC1A		PWM
14	PB0	CLK0	ICP1	

13	PD7	AIN1		
12	PD6	AIN0	OC0A	PWM
11	PD5	T1		PWM
6	PD4	T0	XCK	
5	PD3	INT1	OC2B	PWM
4	PD2	INT0		
3	PD1	TXD		
2	PD0	RXD		

NC
IOREF
RESET	PC6	1
3.3V
5V
GND
GND
Vin

DC Power

USB

Reset

ADC0	PC0	23
ADC1	PC1	24
ADC2	PC2	25
ADC3	PC3	26
ADC4	PC4	27
ADC5	PC5	28

SDA
SCL

Analog Inputs

IORef: 5V

Vin: 7-12V DC max.

Serial: Serial is attached to pins 0 and 1, and to the USB-Serial micrcontroller on board.

The Uno has a second microcontroller on board to handle USB-to-serial communications.
This is the ICSP header for that microcontroller.

| IORef |
| Reset |
| +3.3V |
| +5V |
| Gnd |
| Gnd |
| Vin |

ADC0	GPIO14
ADC1	GPIO15
ADC2	GPIO16
ADC3	GPIO17
SDA ADC4	GPIO18
SCL ADC5	GPIO19

Comm. ADC GPIO

GPIO	ADC	Comm.	PWM	Interrupts
GPIO18	ADC4	SDA		
GPIO19	ADC5	SCL		
	AREF			
Gnd				
GPIO13		SCK		LED
GPIO12		MISO		
GPIO11		MOSI	PWM11	
GPIO10		CS	PWM10	
GPIO9			PWM9	
GPIO8				
GPIO7				
GPIO6			PWM6	
GPIO5			PWM5	
GPIO4				
GPIO3			PWM3	INT1
GPIO2				INT0
GPIO1		TX		
GPIO0		RX		

ICSP:

| Reset | SCK | MISO |
| Gnd | MOSI | +5V |

2

Keyestudio
Multi-purpose shield V1 (£7.50)

Open-Smart
RTC shield (£8.00)

HAILANGNIAO
Multi-Function shield V2 (£1.40)
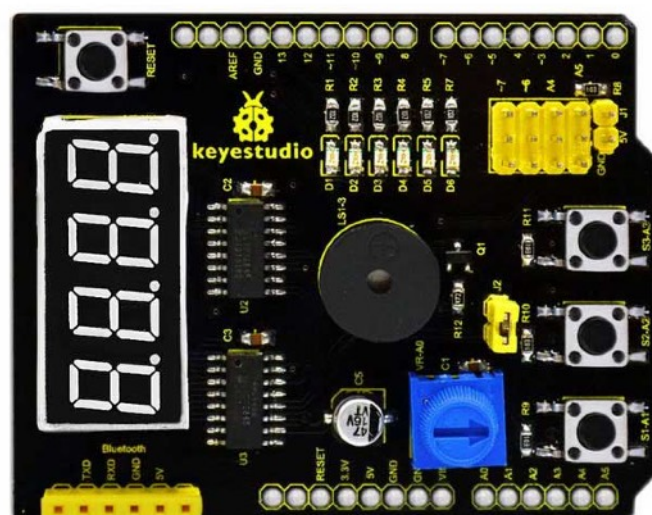
Keyestudio
Multi-Function shield V2 (£7.50)