

ArduLED and ArduRGB

ArduLED is a SMD Soldering Kit developed by Boxtec, with a choice of colors, eg blue LEDs under number [48864]



ArduRGB is also a SMD Soldering Kit sold by Boxtec, with 6 RGB leds



Both kits are simple to assemble, and simple to program on a first level. They allow many programming exercises that helps discovering C instructions and the differences between programming using the Arduino facilities for handling pins, and the power of handling directly the AVR ports of the Uno

```
//TestArduColor.ino one led one color at a
time

void setup() {
  DDRB |= 0x3F;
  DDRD |= 0xFC;
  // cli ();

  // pinMode (3,1); pinMode (2,1);
}
void DelMs(unsigned int dd) {
  volatile unsigned int i, j;
  for (i=0; i<dd; i++) {
    for (j=0; j<900; j++); // ok328
  }
}
```

```
void loop() {
  PORTD= 0x3F;
  PORTB = 0xF3;
  DelMs (500);
  while (1);
  PORTD= 0x00;
  PORTB = 0x00;
  DelMs (500);
  byte motif = 0b00100100;
  while (1) {
    PORTB = motif;
    PORTD = motif<<2;
    DelMs (500);
    PORTB = motif>>1;
    PORTD = motif<<1;
    DelMs (500);
    PORTB = motif>>2;
    PORTD = motif;
    DelMs (500);
  }
}
```

