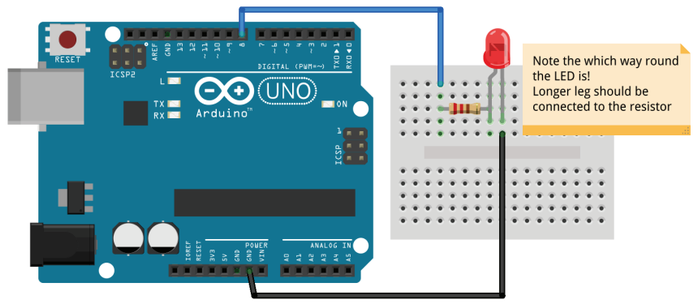
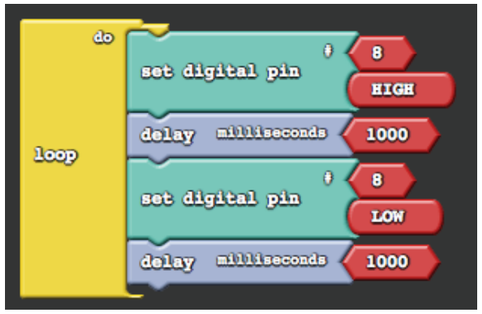
Arduino cheatsheet 1

1 Blink an LED



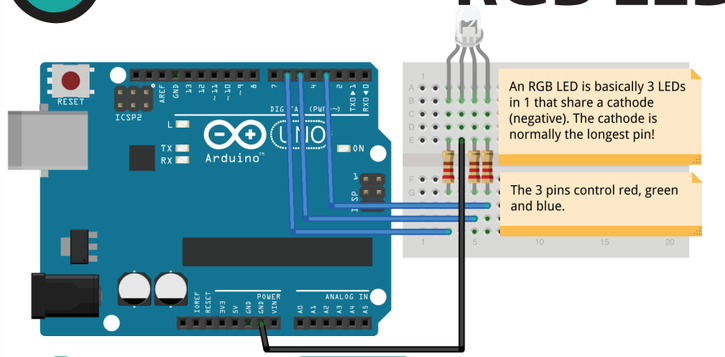


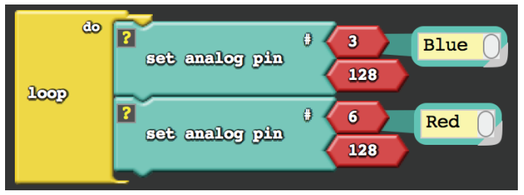

```
void setup()
{
  pinMode( 8 , OUTPUT);
}

void loop()
{
  digitalWrite( 8 , HIGH );
  delay( 1000 );
  digitalWrite( 8 , LOW );
  delay( 1000 );
}
```

What does this code do?

This code turns on the LED connected to pin 8, waits 1000ms (1 second), turns it off again, waits another 1 second and starts again

2 RGB LED



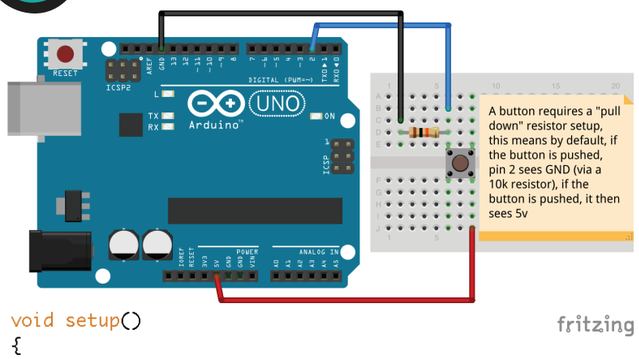


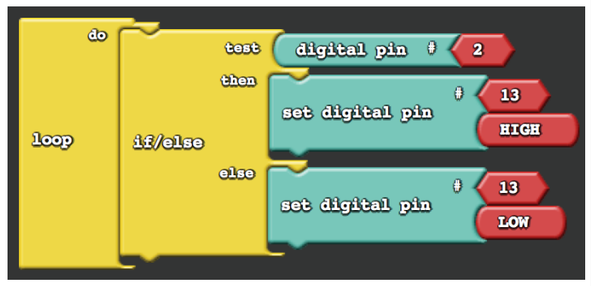

```
void setup()
{
}

void loop()
{
  analogWrite(3, 128);
  analogWrite(6, 128);
}
```

What does this code do?

This code uses PWM (analog output) to turn pin 3 (blue) and pin 6 (red) on half way each to provide us with the colour purple. LED power goes from 0 to 256

3 Detect a button push



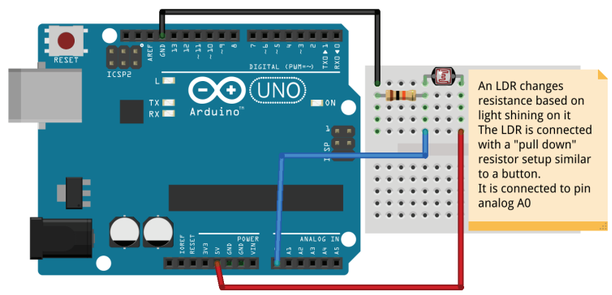


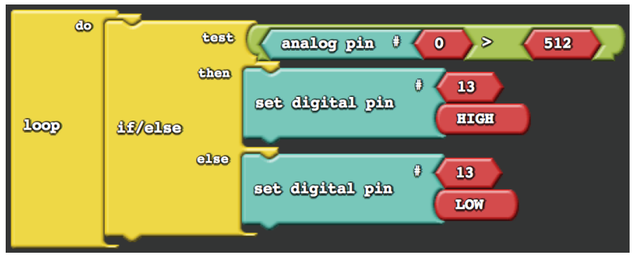

```
void setup()
{
  pinMode( 2 , INPUT);
  pinMode( 13 , OUTPUT);
}

void loop()
{
  if (digitalRead( 2))
  {
    digitalWrite( 13 , HIGH );
  }
  else
  {
    digitalWrite( 13 , LOW );
  }
}
```

What does this code do?

This code turns constantly checks if the button connected to pin 2, is pushed. If it is pushed, it lights the built in LED on pin 13. If not, it turns off the LED.

4 Detecting Light with an LDR






```
void setup()
{
  pinMode( 13 , OUTPUT);
}

void loop()
{
  if (( ( analogRead(A0) ) > ( 512 ) ))
  {
    digitalWrite( 13 , HIGH );
  }
  else
  {
    digitalWrite( 13 , LOW );
  }
}
```

What does this code do?

Analog pins allow you to measure the voltage between 0 and 5v. It returns a result between 0 and 1024. This code will turn on LED 13 if the analog pin A0 reads over 512

Created by @gbaman1 and @minigirlgeek