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/*
 * -----
 *   Toggle Blinking LED Serial Control - Arduino
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 *
 * Uses the Arduino serial library and a PC
 * running Processing to control the brightness
 * of an blinking LED with PWM (pulse-width modulation).
 *
 * DEPENDENCIES:
 *   A connected PC running "Slider Serial - Processing"
 *   http://principialabs.com/arduino-processing-serial-communication
 *
 * Created:   Nov. 2012
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 * adapted from Serial-Slider
 * Author:    Brian D. Wendt
 * (http://principialabs.com/)
 * Version:   1.0
 * License:   GPLv3
 * (http://www.fsf.org/licensing/)
 *
 */

int LED = 9; // any PWM pin (9 - 11)
int pulsewidth = 255; // define pulsewidth (0-255)
int rawSerial; //define serial input

void setup() {
  // Open serial connection, 9600 baud, wait till input received from serial
  Serial.begin(9600);
  while (Serial.available()==0 ) {
    rawSerial =Serial.read();
    Serial.print(rawSerial, DEC);
    Serial.println();
  }
}

//if repeats of different length are needed repeat blocks
//including get serial command etc

void loop() {

  //block1 light on
  // Get serial input from Processing
  if (Serial.available()) {
    rawSerial = Serial.read();
    // uncomment these two lines to debug
    Serial.print(rawSerial, DEC);
    Serial.println();
  }
  // Map rawSerial percentage (0-100) to LED pulsewidth (0-255)
  pulsewidth = map(rawSerial, 0,100, 0,255);
  // Set LED brightness
  analogWrite(LED, pulsewidth);
  delay(2000); // LED on for 2000 ms
}
}
```

```
//block2 light off
// Get serial input from Processing
if (Serial.available()) {
  rawSerial = Serial.read();
  // uncomment these two lines to debug
  Serial.print(rawSerial, DEC);
  Serial.println();
}
analogWrite(LED, 0);
delay(3000); // LED off for 3000 ms

// add more blocks if necessary

}
```