

Arduino - Basic Digital Outputs - Tinkercad Circuits Version

Blink

TIN KER CAD Copy of (in-class) EA Ch 2 - blink - starter All changes saved Simulator time: 00:00:33

The screenshot shows a Tinkercad breadboard simulation. A red LED is connected to digital pin 9 of an Arduino Uno. The LED's positive terminal is connected to a 220 ohm resistor, which then connects to digital pin 9. The LED's negative terminal is connected to ground. A power source (represented by a battery icon) is connected to the breadboard's power rail. The Arduino Uno is connected to the breadboard via a USB cable. The code editor on the right contains the following sketch:

```
1 const int LED=9; //init pin 9 as LED
2
3 void setup() {
4   pinMode(LED, OUTPUT); //put it in output mode
5 }
6
7 void loop() {
8   //for loop, start at 100, build up by 100 until 1000, then reset
9   for (int i=100; i<=1000; i=i+100) {
10     digitalWrite(LED, HIGH); //turn it to high
11     delay(i); //delay of i
12     digitalWrite(LED, LOW); //turn it to low
13     delay(i); //delay of i
14   }
15 }
```

Code | Stop Simulation | Send To

1 (Arduino Uno R3)

Serial Monitor

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```
1 const int LED=9; //init pin 9 as LED
2
3 void setup() {
4   pinMode(LED, OUTPUT); //put it in output mode
5 }
6
7 void loop() {
8   //for loop, start at 100, build up by 100 until 1000, then reset
9   for (int i=100; i<=1000; i=i+100) {
10     digitalWrite(LED, HIGH); //turn it to high
11     delay(i); //delay of i
12     digitalWrite(LED, LOW); //turn it to low
13     delay(i); //delay of i
14   }
15 }
16 //separator
17 digitalWrite(LED, HIGH);
18 delay(2000);
19 digitalWrite(LED, LOW);
20 delay(1000);
21
22 //reversed for loop
23 for (int i=1000; i>=100; i=i-100) {
24   digitalWrite(LED, HIGH);
25   delay(i);
26   digitalWrite(LED, LOW);
27   delay(i);
28 }
29
30 //separator
31 digitalWrite(LED, HIGH);
32 delay(2000);
33 digitalWrite(LED, LOW);
34 delay(1000);
```

Code | Start Simulation | Send To

1 (Arduino Uno R3)

Text

Matthew Bacheader

