

PROGRAM OVERVIEW

- 1 Turn the LED on by sending power (5V) to digital pin 13.
- 2 Wait 2 seconds (2000 milliseconds).
- 3 Turn the LED off by cutting power (0V) to digital pin 13.
- 4 Wait 2 seconds (2000 milliseconds).
- 5 Repeat.



ONBOARD LED PIN 13:

You may have noticed a second, smaller LED blinking in unison with the LED in your breadboard circuit. This is known as the onboard LED, and you can find one on almost any Arduino or Arduino-compatible board. In most cases, this LED is connected to **digital pin 13 (D13)**, the same pin used in this circuit.

NEW IDEAS

CODE TO NOTE: The sketches that accompany each circuit introduce new programming techniques and concepts as you progress through the guide. The Code to Note section highlights specific lines of code from the sketch and explains them in greater detail.

CODE TO NOTE

SETUP AND LOOP:

```
void setup(){} &  
void loop(){}</pre>
```

Every Arduino program needs these two functions. Code that goes in between the curly brackets {} of `setup()` runs once. The code in between the `loop()` curly brackets {} runs over and over until the RedBoard is reset or powered off.

INPUT OR OUTPUT?:

```
pinMode(13, OUTPUT);</pre>
```

Before you can use one of the digital pins, you need to tell the RedBoard whether it is an **INPUT** or **OUTPUT**. We use a built-in “function” called `pinMode()` to make pin 13 a digital output. You’ll learn more about digital inputs in Project 2.