

# TIMER EVENTS

## IN THIS LESSON

`setTimeout()`

`clearTimeout()`

`setInterval()`

`clearInterval()`

## setTimeout()

Timers allow us to delay the execution of some code for a specific amount of time

```
setTimeout(aFunctionName, waitDuration)
```

First argument is a function name - no argument list/  
parentheses after the function name!

Second argument is a time in milliseconds - 1000 is 1 second

&lt;&gt; timer-demo1.html X

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  ....<meta charset="utf-8"/>
5  ....<title>Timer Demo 1</title>
6  </head>
7  <body>
8  ....<button type="button" onclick="setAlarm()">Set Alarm</button>
9
10 ....<script>
11 .....function setAlarm(){
12 .....    const waitDuration = prompt('How long do you want to sleep?');
13 .....    setTimeout(wakeMeUp, waitDuration);
14 .....}
15
16 .....function wakeMeUp(){
17 .....    alert('WAKE UP!');
18 .....}
19 ....</script>
20 </body>
21 </html>
```

Set Alarm

127.0.0.1:5500 says

How long do you want to sleep?

5000

OK

Cancel

Set Alarm

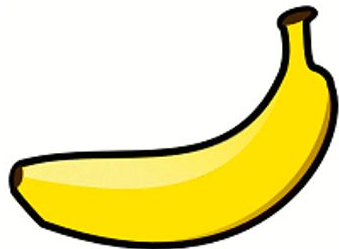
127.0.0.1:5500 says

WAKE UP!

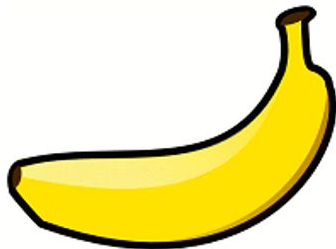
OK

&lt;&gt; timer-demo2.html X

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  ....<meta charset="utf-8"/>
5  ....<title>Timer Demo 2</title>
6  ....<style>
7  .....img {
8  .....    position: absolute;
9  .....    left: 0;
10 .....  }
11 .....</style>
12 </head>
13 <body onload="moveBanana()">
14 ....
15 ....<script>
16 .....let xPosition = 0;
17 .....let theBanana = document.querySelector('img');
18 .....function moveBanana() {
19 .....    xPosition += 1;
20 .....    theBanana.style.left = xPosition + 'px';
21 .....    setTimeout(moveBanana, 50);
22 .....  }
23 ....</script>
24 </body>
25 </html>
```







## clearTimeout()

**setTimeout()** returns a numeric timer ID as its return value -  
assign this to a variable:

```
let timerID = setTimeout(aFunctionName, waitDuration)
```

Stop the timer with **clearTimeout()** by  
giving it that specific timer ID:

```
clearTimeout(timerID);
```

<> timer-demo2.html X

```

6  ....<style>
7  ....    img {
8  ....        position: absolute;
9  ....        left: 0;
10 ....        top: 50px;
11 ....    }
12 ....</style>
13 </head>
14 <body onload="moveBanana()">
15 ....
16 ....<button type="button" onclick="clearTimeout(bananaTimer);">STOP BANANA</button>
17 ....<script>
18 ....    let xPosition = 0;
19 ....    let theBanana = document.querySelector('img');
20 ....    let bananaTimer = 0;
21 ....    function moveBanana() {
22 ....        xPosition += 1;
23 ....        theBanana.style.left = xPosition + 'px';
24 ....        bananaTimer = setTimeout(moveBanana, 50);
25 ....    }
26 ....</script>
27 </body>

```

<> timer-demo2.html X

6 <style>

7 <img

8

9

10

11

12 </style>

13 </head>

14 <body onload

15 <img src

16 <button

17 <script

18 let

19 let

20 let

21 fun

22

23

24

25

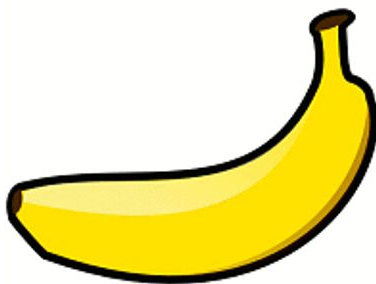
26 </script>

27 </body>

Timer Demo 2

127.0.0.1:5500/timer-demo2.html

STOP BANANA



## setInterval()

**setInterval()** will repeat the given function instead of running it once, using the given wait duration

```
setInterval(aFunctionName, waitDuration)
```

## clearInterval()

Like **setTimeout()**, **setInterval()** also returns a numeric ID that you can assign to a variable:

```
let timerID = setInterval(aFunctionName, waitDuration)
```

Stop the timer with **clearInterval()** by giving it that specific timer ID:

```
clearInterval(timerID);
```

timer-demo2.html X

```
11 .....  
12 .....</style>  
13 </head>  
14 <body onload="startMovingBanana()">  
15 .....  
16 .....<button type="button" onclick="clearInterval(bananaTimer);">STOP BANANA</button>  
17 .....<script>  
18 .....    let xPosition = 0;  
19 .....    let theBanana = document.querySelector('img');  
20 .....    let bananaTimer = 0;  
21 .....  
22 .....    function startMovingBanana() {  
23 .....        bananaTimer = setInterval(moveBanana, 50);  
24 .....    }  
25 .....  
26 .....    function moveBanana() {  
27 .....        xPosition += 1;  
28 .....        theBanana.style.left = xPosition + 'px';  
29 .....    }  
30 .....</script>  
31 </body>  
32 </html>
```

timer-demo2.html

```
11 .....  
12 .....</style>  
13 </head>  
14 <body onload="start">  
15 .....  
16 .....<button type="button" value="STOP BANANA" data-bbox="258 265 355 295"/>  
17 .....<script>  
18 .....let xPos = 0;  
19 .....let theBanana = document.querySelector('img');  
20 .....let banana = theBanana;  
21 .....  
22 .....function moveBanana() {  
23 .....    banana.style.left = xPos + 10px;  
24 .....}  
25 .....  
26 .....function start() {  
27 .....    xPos = 0;  
28 .....    theBanana.style.left = xPos + 10px;  
29 .....}  
30 .....</script>  
31 </body>  
32 </html>
```

Timer Demo 2

127.0.0.1:5500/timer-demo2.html

STOP BANANA

