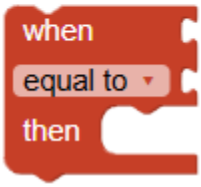
Events

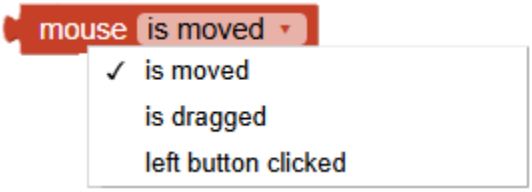
These blocks allow you to wait for things to happen and then react to those situations. Handling events can seem rather complicated at first, but once you try some examples and edit them to do slightly different things, you will see how they work.

When blocks take an input about a situation that might change.
You can tell Logo Blocks what to do what under certain circumstances.



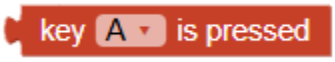
The events you can look for are shown below.

This event detects if the size of the graphics panel changes.

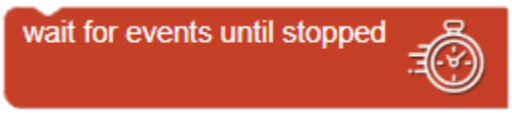


This event detects if the mouse is moved, dragged, or its left button is clicked. You can choose the condition.

This event is triggered if the user presses any key.



This event is triggered if the user presses a specific key. You can set the key to any letter (works with both upper and lower case), number, the space bar, or an arrow key.



This block causes the program to halt and wait for the specific event to occur.

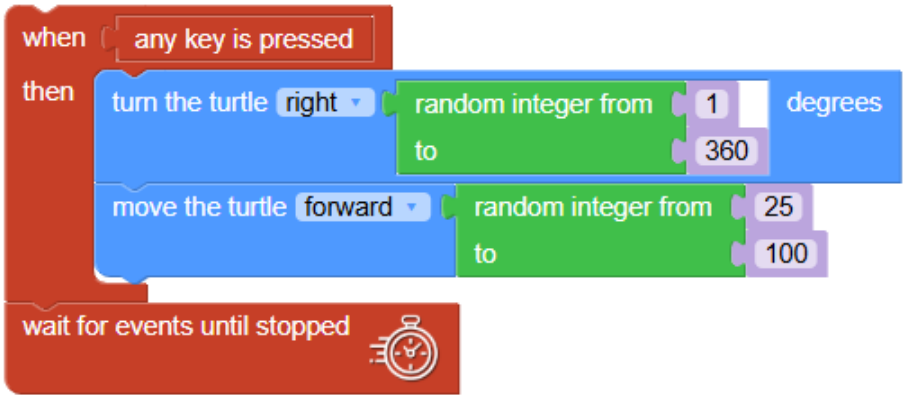
Always put this block at the bottom of your code when using events.

TIP: If you use a ***when*** block, don't put it inside a ***forever*** block. That will keep Logo busy, which you do not want.

Let's see some examples of these blocks in use. You can try these examples as is and then edit the blocks to act differently. It's up to you!

Example A:

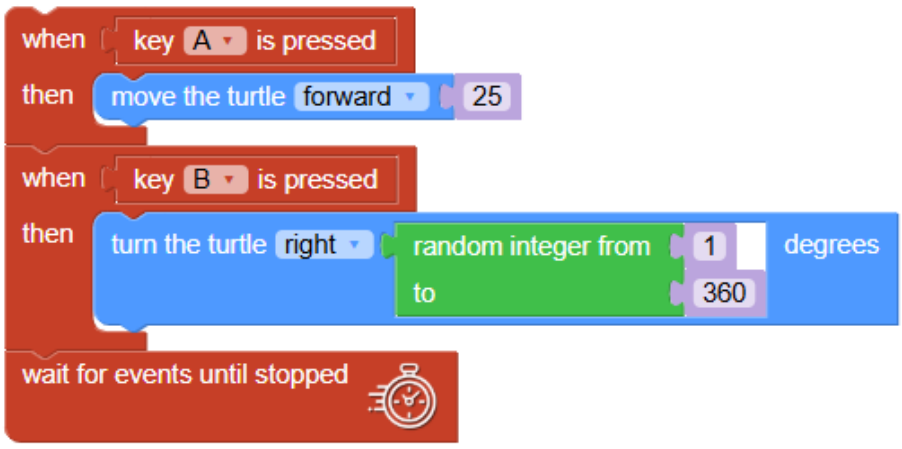
In this example, pressing any key moves and turns the turtle random amounts.
It doesn't pay attention to what keys are pressed.
Click the red **Stop** button to end the program.



Editor

```
WHEN [KEY] [
      RIGHT (RANDOM 1 360)
  FORWARD (RANDOM 25 100)
]
WAIT -1
```

If you want different keys to perform different actions, use blocks like this:



Editor

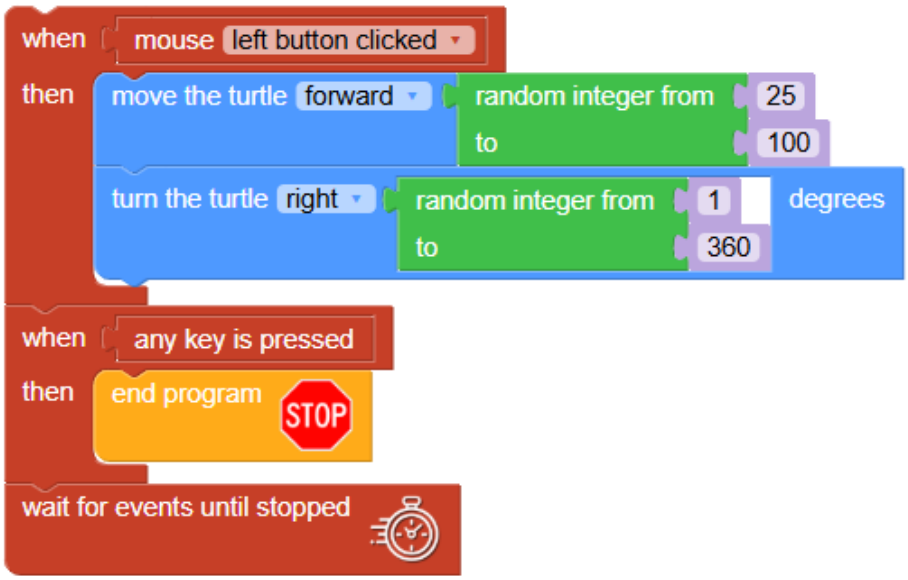
```
WHEN [KEY = "A] [
      FORWARD 25
]
WHEN [KEY = "B] [
      RIGHT (RANDOM 1 360)
]
WAIT -1
```

Pressing the A key moves the turtle forward 25 steps.
Pressing B turns it a random amount.

Explore different keys to cause different actions.

Example B:

In this example, clicking the left mouse button moves and turns the turtle in random amounts.
Pressing any key stops the program.
The speed is set to 0.9 so you watch the turtle draw.

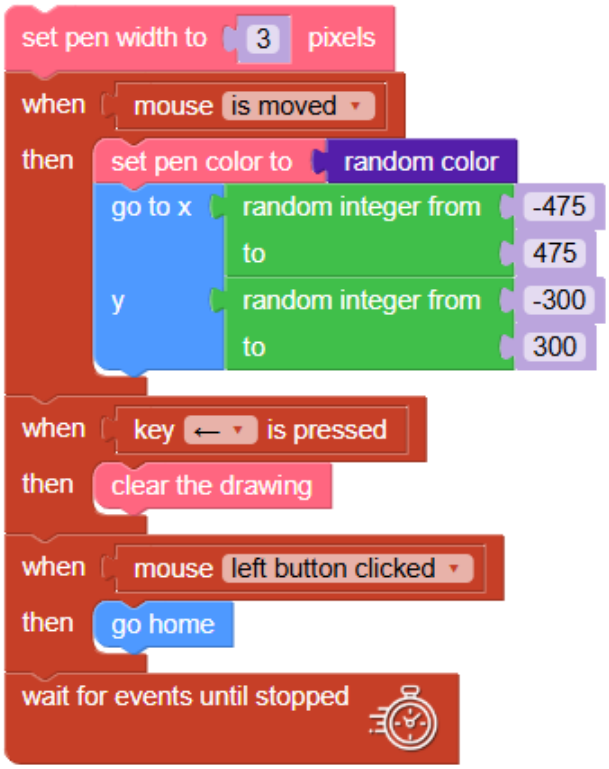


Editor

```
1  WHEN [MOUSE CLICKED] [
2        FORWARD (RANDOM 25 100)
3    RIGHT (RANDOM 1 360)
4  ]
5  WHEN [KEY] [
6        TOPLEVEL
7  ]
8  WAIT -1
```

Example C:

In this example, moving the mouse draws a line to a random x-y coordinate location in a random color.
Pressing the left arrow key erases the drawing.
Clicking the mouse moves the turtle to its home in the middle of the screen.
You may wish to explore different turtle speeds.



Editor

```
1  SETWIDTH 3
2  WHEN [MOUSE MOVED] [
3        SETPC PICK COLORS
4    SETXY LIST (RANDOM -475 475) (RANDOM -300 300)
5  ]
6  WHEN [KEY = ARROWLEFT] [
7        CS
8  ]
9  WHEN [MOUSE CLICKED] [
10       HOME
11 ]
12 WAIT -1
```

Example D:

In this example, pressing A moves and turns the turtle and prints the letter A on the screen. Pressing B moves the turtle a different distance and prints the letter B on the screen.

Pressing the number 9 erases the screen.

Editor

```
1  SETFONT "TIMES 24 0
2  WHEN [KEY = A] [
3        TURTLETEXT "A
4    FORWARD 50
5    RIGHT 90
6  ]
7  WHEN [KEY = B] [
8        TURTLETEXT "B
9    FORWARD 100
10   RIGHT 45
11 ]
12 WHEN [KEY = 9] [
13       CS
14 ]
15 WAIT -1
```