

# Logo Blocks Tutorial ~ Beginner Mode

When you first start Logo Blocks, you will see the **Beginner** set of blocks. After you learn how to use blocks, you can switch to the **Advanced** set of blocks, which gives you many more commands.

Let's see how block coding works!

## Move and Turn the Turtle

Beginner



In Beginner mode, use the blocks in the first two rows to move the turtle forward and back.



The first three blocks in each row move the turtle a specific distance: 10, 50, or 100 steps.



Drag the forward 100 block into the command area to the right of the blocks.



Then, click the green arrow to run the code.



If you look at the Editor, you will see that Logo added the code for the button you added. This is the code that Logo will be running. It looks like this:



```
Editor
1 ; slow down the turtle in beginner mode
2 SETSPEED 0.8
3
4 FORWARD 100
```



Logo adds a command to slow the turtle down in Beginner mode. That lets you watch how it moves.

The Forward and Back blocks with the number 100 are for a variable distance. You can change the number 100 to any value you choose, after you drag it to the command area.

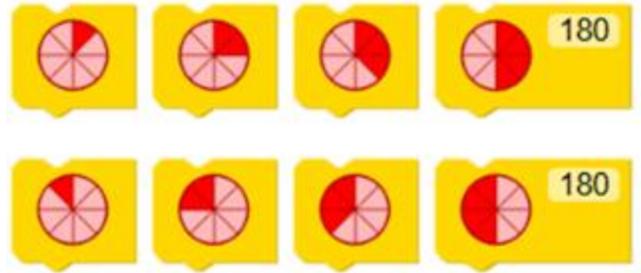
Each time you click the **Run** button, Logo follows your commands.

To erase your block, drag it to the Trash can at the bottom of the command area. Doing that also erases your code in the Editor.



The next two rows of blocks are for turns.

You can turn 45 degrees, 90 degrees, 135, or 180 degrees to the right or left. You can change 180 to any number you choose if you want a different angle.



## Control How the Turtle Draws

The next row of blocks lets you control the drawing.

Use the eraser block to clear the drawing. Put it the beginning of your code to erase any lines that are already in the Graphics panel.



Use the block with the pen and a line to lower the turtle's pen so it can draw a line.



Use the block with just the pen to raise the turtle's pen so it can't draw.



## Create Loops

The last block in the Beginner section lets you create loops!



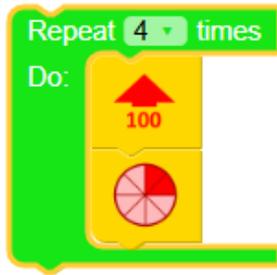
You can change the number 1 to any number from 1 to 10. Just click the arrow pointing down after the number 1.

After the word **Do:** is a place to put a block.

You can drag a forward block after **Do:** to include it in the Repeat block.

You can then add another block to be repeated.

What do you think this code will draw? Compare the block code to what is in the Editor.

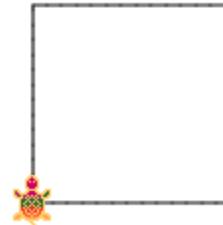


```
Editor
1 ; slow down the turtle in beginner mode
2 SETSPEED 0.8
3
4 REPEAT 4 [
5   FORWARD 100
6   RIGHT 90
7 ]
```

The turtle will move forward 100 steps, and then turn right. It will do that 4 times.

Do you see the design in the Graphics area?

Now you know how to draw a square!



How could you change the square? Can you make it larger or smaller?  
Can you add a block to erase the drawing before it runs the program?

## Edit Your Code

To edit a block program, you can drag blocks to disconnect them.

Drag the Forward 100 command in the Repeat loop out of that block.

Now, drag the Right 90 block down to separate it from the Forward 100 block.

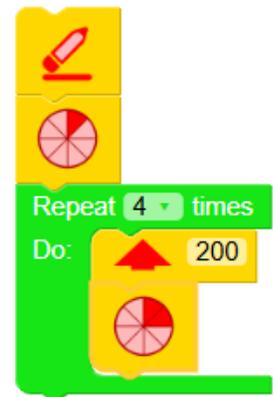
Now you can move either (or both) of those commands to the Trash can.

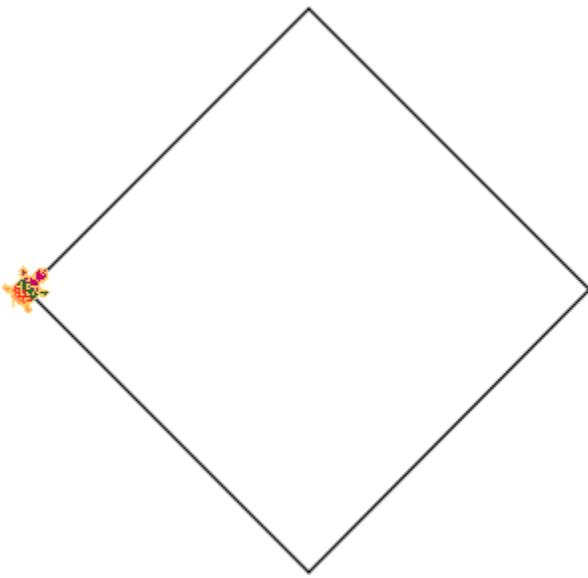
Replace the Forward 100 command with a different block.

Try adding the variable Forward command and set the number of steps to 200. Click in the box with 200 and type a different number.

This code erases the screen, turns the turtle 45 degrees to the right and then draws a larger square.

Here are the results:





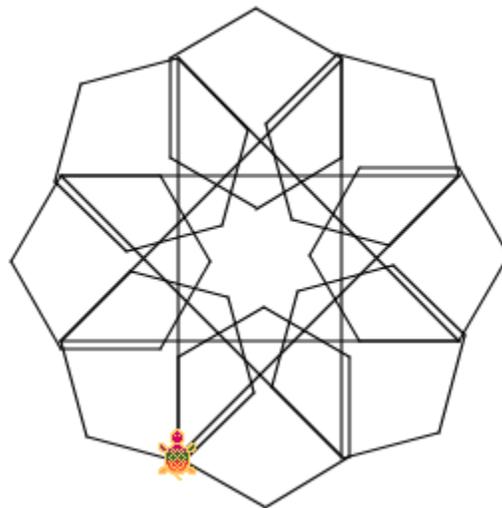
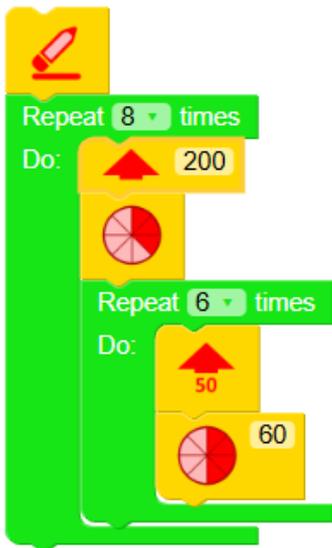
```
Editor
1 ; slow down the turtle in beginner mode
2 SETSPEED 0.8
3
4 CS
5 RIGHT 45
6 REPEAT 4 [
7   FORWARD 200
8   RIGHT 90
9 ]
```

Play around with different turns and distances.

Pay attention to the Editor. Every time you make a change to the blocks, the code in the Editor changes to match it.

Did you know that you can nest repeats? That means you can put one inside the other.

Try this!



```
DRAW
REPEAT 8 [
  FORWARD 200
  RIGHT 135
  REPEAT 6 [
    FORWARD 50
    RIGHT 60
  ]
]
```

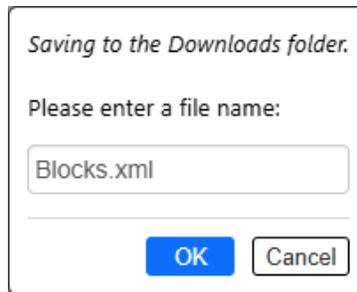
## Save and Load Your Code

Load

Save

To save your Logo Blocks program, click the **Save** button at the bottom of the blocks area.

Type a name for your file that describes what you did. When you click the **OK** button, the file is saved to the Downloads folder in your computer.



To get a saved program back, click the **Load** button. Saved programs go to your Downloads folder, so you may find it there. But you may have moved the file to a different location. If you need to search for the program, remember that its file name ends with `.xml`.

Note that the **Save** button in the Editor saves just the Logo commands that are in the Editor. If you do this, you can use the code later in the full Logo programming language.

## Print Your Block Code

Although you could use your browser's Print option to print your entire screen, you probably won't like the results. The text and graphics will be too small! A better option is to use your computer's PrintScreen function. You can generally select the area you want to capture. This action will copy the area you choose to the Clipboard. You can then paste it into another application to print it. Refer to your computer's Help for details.

## Quit Logo Blocks

To exit Logo Blocks, click the red Quit button. 

You can click **Yes** to log out or **No** to stay in Logo Blocks.

Don't forget to save your work before you leave!