

# Creating Variables



Variables can be used to **store and retrieve values** in a program.

They can save numbers, texts, lists and even blocks or objects.

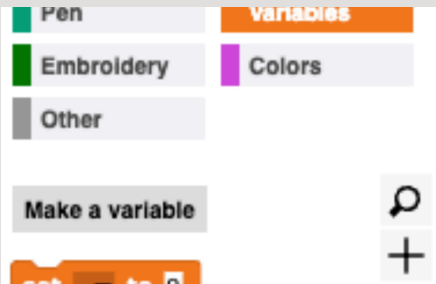
angle

50

position

1 5  
2 10

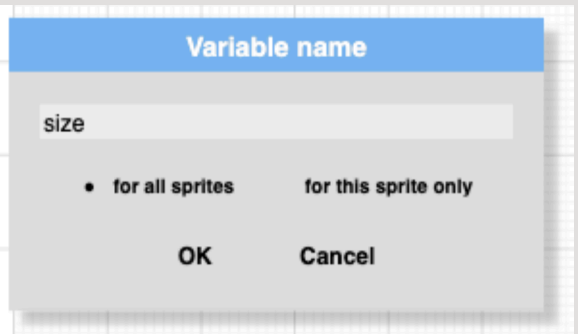
length: 2



You can create a variable by clicking on the **Make a variable** button in the Variables category.

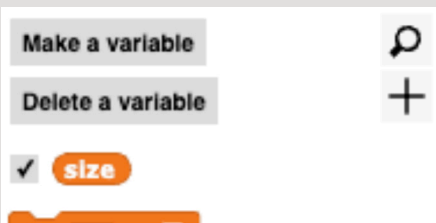
You can give the variable a name and click OK to create it.

Make sure you pick a descriptive name, especially if your program uses several variables.

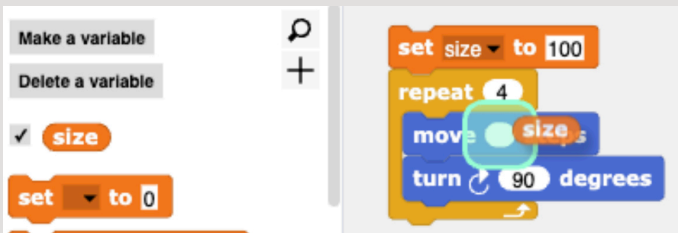


Your new variable appears at the **top of the Variables category**.

Additionally, it will be shown on the stage, when the box is checked

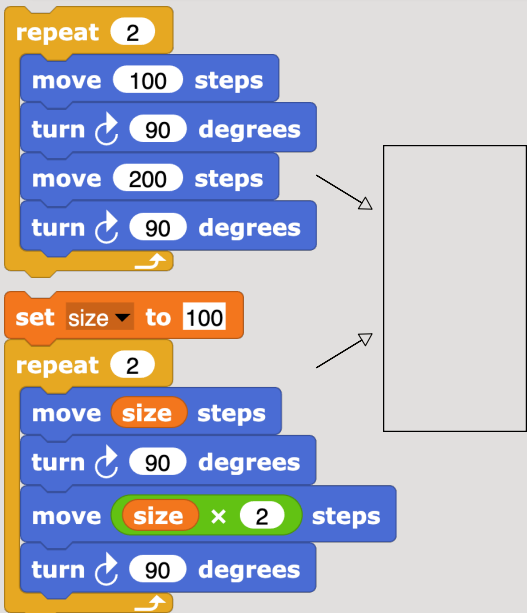


# Using Variables



You can use the variables in a program by **dragging the orange variable reporter** from the palette into a script.

You can **set** and **change** the value of a variable using the eponymous blocks from the Variables category. The variable can be selected from the dropdown menu of the blocks.



It's often a good idea to describe a shape relative to a variable - this is called **parameterization**.

In this case, both scripts produce the same rectangle.

If you want to change the size or proportion of the shape, it's much easier in the bottom version, because everything is programmed **relatively to the size variable**.