

Loops



Loops can be used to **repeat** parts of a program.

Every block enclosed in the c-shaped input slot is repeated as often as indicated on the block.

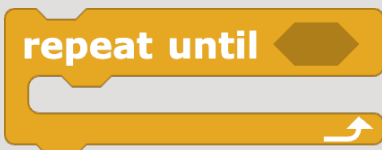
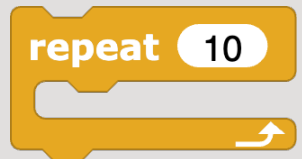


The **forever loop repeats** the enclosed blocks **indefinitely** (or until the red stop button or the active script is pressed)

The **repeat x** block repeats the enclosed script x times.

It's especially useful for anything that has to do with the **total turtle trip**:

Product of the turning angle and number of degrees turned during each repeat should be 360° to create a closed shape.



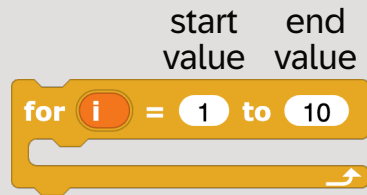
The **repeat until** block takes a stop condition as its first input and repeats the enclosed block until that condition is met.

The for Loop

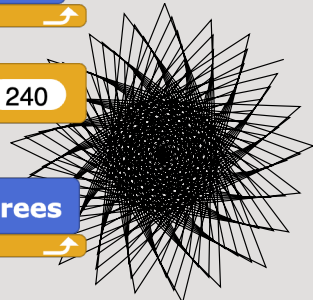
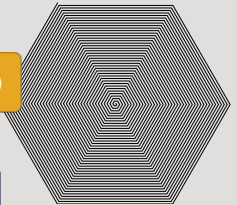
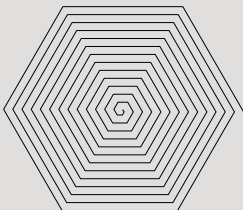


The **for loop** contains an **internal variable i** which is set to the start value when the loop is executed.

i is automatically **increased by 1** in each iteration until the end value is reached.



The **for loop** can be used to create spirals and other interesting shapes:



change i by 2

The change block can be used to change i by more than 1 to create less dense patterns