

Different ways to Create Turtles in StarLogo

We already discussed/examined using *crt* to create turtles as an observer. How do we create turtles if we are a turtle or a patch

- Turtles can create new turtles using the *hatch* command, which will duplicate the current turtle.
- Patches can create new turtles using the *sprout* command.

Make multiple turtles using *repeat* in combination with the command. Unlike the *crt*, command, this will not point all the turtles in different turtles.

hatch [list of commands]

Parameters:

[list of commands] *List of commands*

Description:

Make an exact copy of a turtle, including turtles-own variables and state variables. The **[list of commands]** is then run on the cloned turtle.

Examples:

`hatch [setc blue fd 1]` has the caller make a duplicate of itself, and then the duplicate sets its color to blue and moves forward 1.

sprout [list of commands]

Parameters:

[list of commands] *List of commands* commands to be executed by new turtles

Description:

Each patch creates a turtle, which then executes **[list of commands]**.

Examples:

`ask-patches [sprout [setc green fd 1]]` asks each patch to create a turtle, which sets its color to `green` and moves forward 1 unit.