

# Programming, control structures

Loriano Storchi

[loriano@storchi.org](mailto:loriano@storchi.org)

<http://www.storchi.org/>



YOU CAN TRY USING SCRATCH

# Scratch

- **Scratch is a block-based visual programming language and online community targeted primarily at children.**



# Scratch

The image shows the Scratch programming environment. At the top, there is a menu bar with "SCRATCH", a globe icon, a save icon, a share icon, and the text "File Edit Share Help". Below the menu bar is a toolbar with icons for undo, redo, and other functions.

The interface is divided into several sections:

- Left Panel (Toolbox):** Contains categories for Motion, Looks, Sound, Pen, Control, Sensing, Operators, and Variables. The Motion category is selected, showing blocks like "move 10 steps", "turn 15 degrees", "point in direction 90", "go to x: -175 y: -77", "glide 1 secs to x: -175 y: -77", "change x by 10", "set x to 0", "change y by 10", "set y to 0", and "if on edge, bounce".
- Stage:** Displays a 3D-rendered room scene with a pink carpet, a wooden bed with a pink blanket, a desk with a computer, and a window with white curtains. A cat sprite is running in the room. The coordinates for the cat are shown as x: -324 y: -122.
- Sprite Area:** Shows the selected sprite, "Sprite1", with its current position (x: -129 y: -89 direction: 90) and tabs for Scripts, Costumes, and Sounds.
- Script Editor:** Contains two scripts. The first script starts with "when green flag clicked" followed by "go to x: -175 y: -77". The second script starts with "when green flag clicked", followed by a "forever" loop containing an "if key right arrow pressed?" block with a "move 2 steps" block inside it. A third script starts with "when green flag clicked", followed by a "forever" loop containing an "if key up arrow pressed?" block with a "turn 45 degrees" block inside it.