

Code to Learn

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Coding is the new thing...

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Only it's not new

40 years ago there was Logo



TO PLANT
NEWFLOWER
BACK 50
PETAL
BACK 50
END



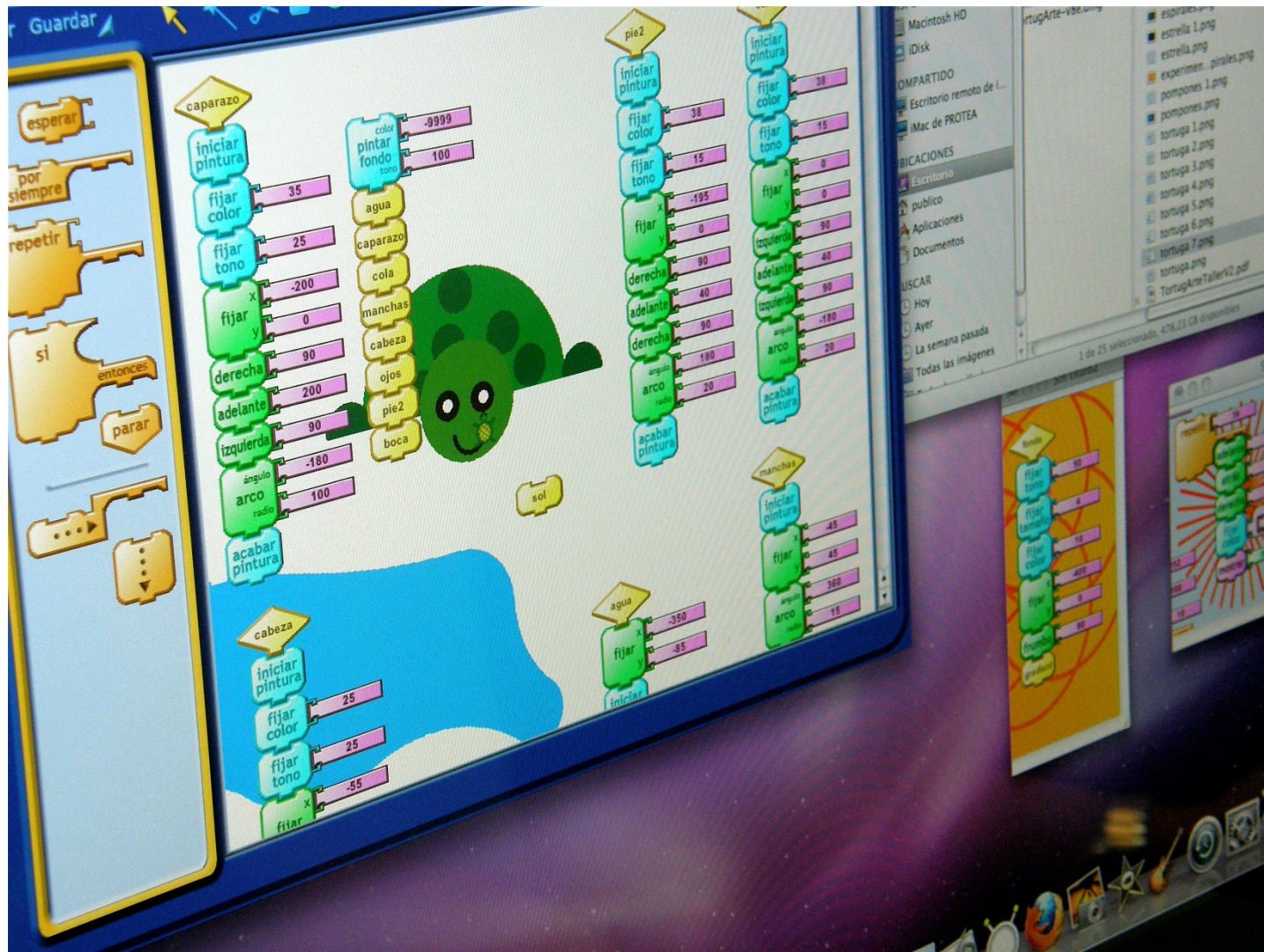
Now there is Scratch

The image shows the Scratch web interface. At the top, there is a navigation bar with the Scratch logo, a globe icon, and menu items: File, Edit, and Tips. On the right side of the top bar, there are links for "Sign in to save" and "Sign in". Below the navigation bar, the main workspace is titled "Full 16 Frame Scratch Cat Walk Cycle by griffpatch". The workspace contains a Scratch Cat sprite in a grassy field with a tree and a blue sky. The sprite's current position is indicated as x: 240, y: -180. To the right of the workspace is a "Scripts" panel with a "Costumes" tab selected. The "Events" category is active, showing several event blocks: "when clicked", "when space key pressed", "when this sprite clicked", "when backdrop switches to backdrop", "when loudness > 10", "when I receive message1", "broadcast message1", and "broadcast message1 and wait". The "when this sprite clicked" block is expanded, showing a sequence of actions: "wait 0.02 secs", "next costume", "when this sprite clicked" (a loop), "set size to 50%", "go to x: -195 y: -123", "clear", "switch costume to Walk1", "repeat 8" (containing "stamp", "change x by 55", "next costume"), "set size to 120%", and "go to x: 0 y: 55". At the bottom left, the "Sprites" panel shows the "Scratch Cat" sprite selected, along with other assets like "Tree_3", "Glass-Tal...", "grass3", "grass2", and "Tree_2".

And ScrtachJr



And TurtleArt

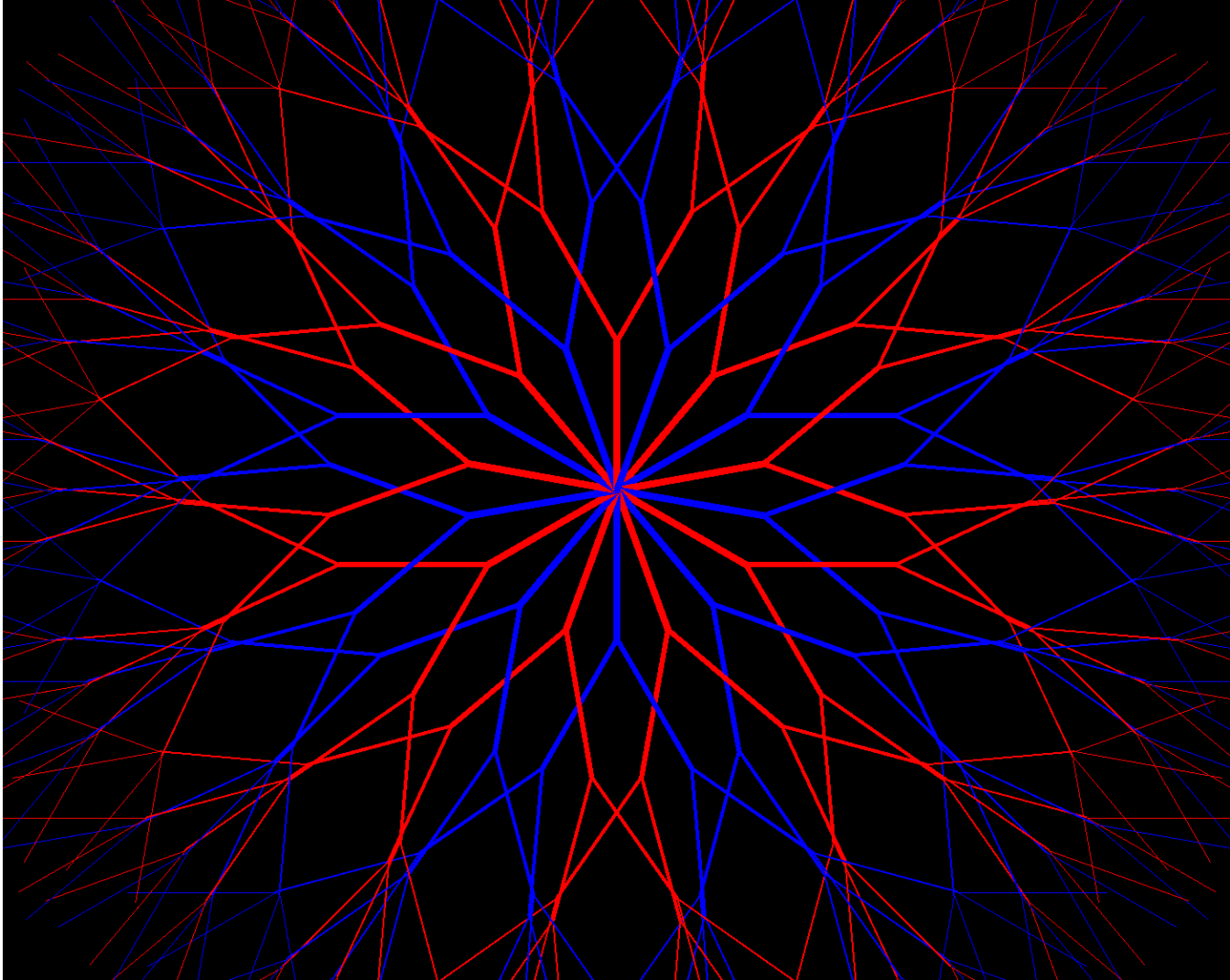


Everyone is talking about
learning to code.

Everyone is talking about
learning to code.

Let's also talk about
coding to learn.

Math



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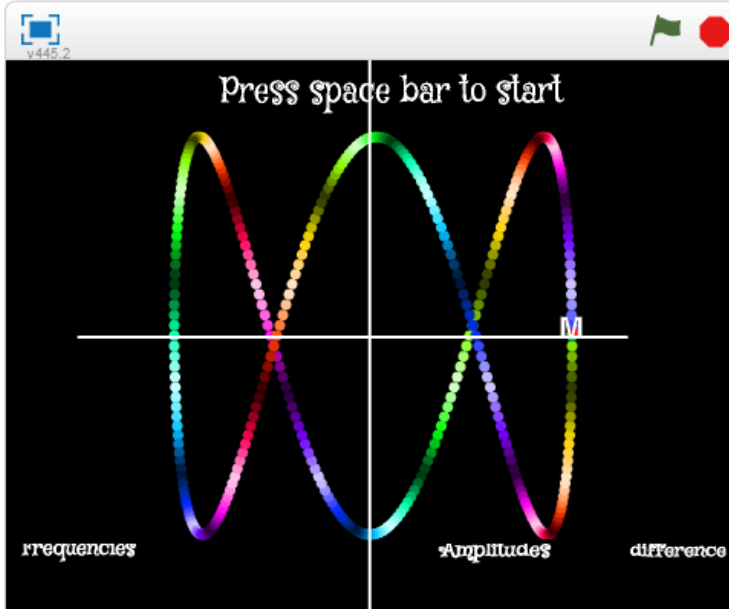
Sign in

Lissajous Figures_Interactive-2

by dapontes

29 scripts
9 sprites

See inside



Instructions

MODE I: Examples

----> Use the key numbers 1,2,3.....9,0 to watch different patterns

MODE II: Interactive

----> Choose the values for Amplitudes (A1,A2), frequencies (f1,f2) and phase difference $D\phi$, to make your figures (Press SPACE bar)

Notes and Credits

When a particle is subjected to two mutually perpendicular simple harmonic motions (SHM), it traces a path on a plane that depends upon the frequencies, amplitudes and phases of the component SHMs. These curves were first demonstrated by Jules Antonie Lissajous in 1857 (Wikipedia)

math physics simulations

© Shared: 24 Nov 2015

Modified: 27 Nov 2015

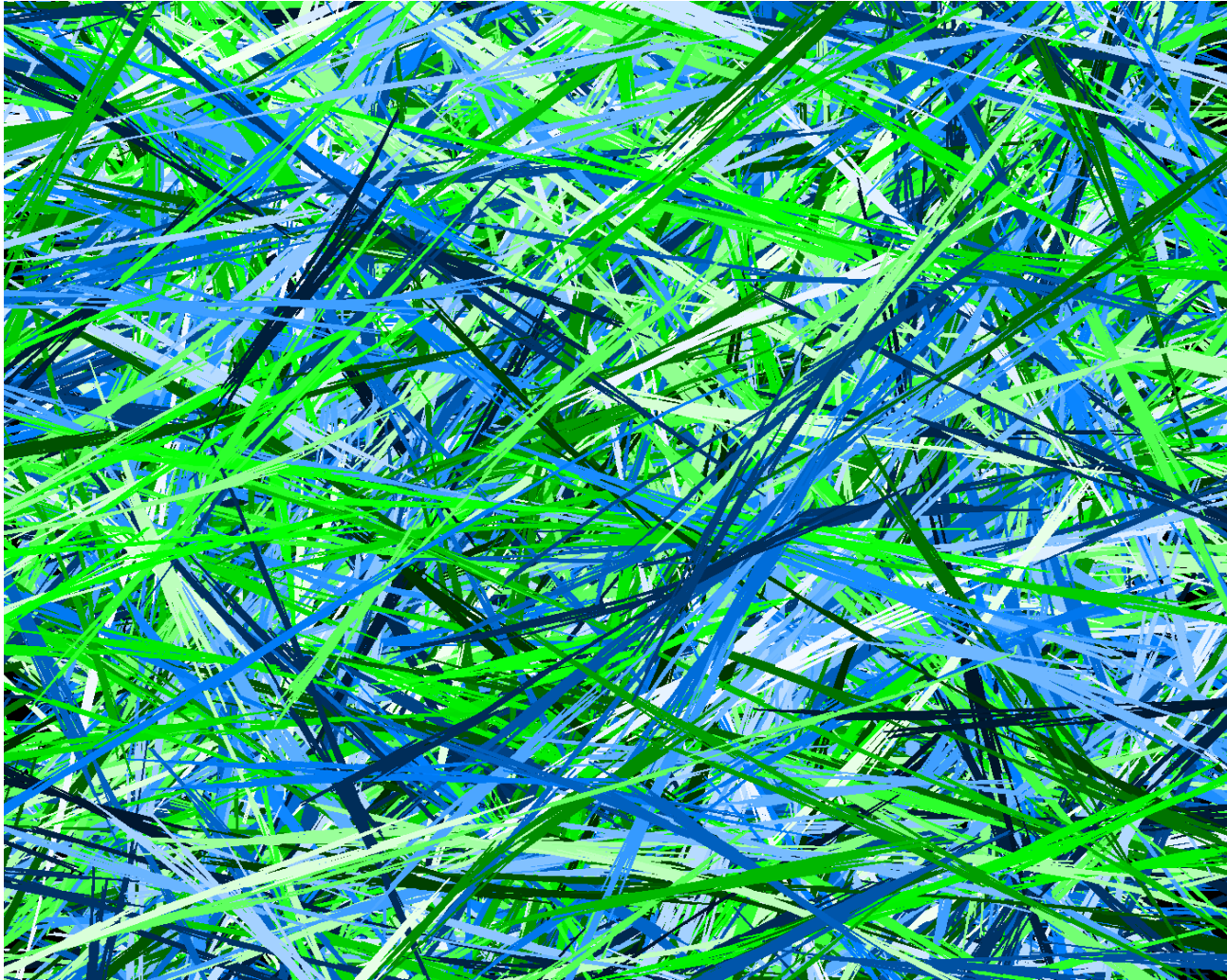
★ 17

♥ 25

👁 308

🌳 1

Art



For more information:

<http://scratch.mit.edu>

<http://www.scratchjr.org>

<http://www.turtleart.org>

<http://logothings.wikispaces.com>

<http://www.playfulinvention.com>