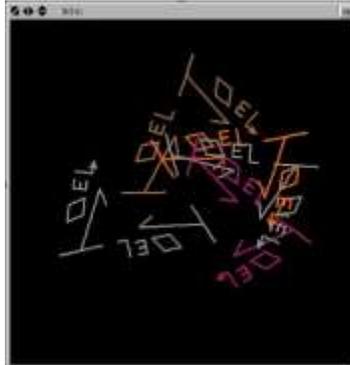


CS108L Computer Science for All

Module 2: Hello World - Your Name in Turtle Graphics

EXTENSION



To complete the Module 2 Extension you should add another button to the Interface labeled **extension**.

The extension button should execute code that incorporates your name or initials into a design for a ‘brand’ or ‘logo’. This is your chance to be creative with Netlogo. Your logo should be visually appealing and capture something that is unique about you or something you care about. Include multiple shapes and colors in the design.

Additionally, include (at least) 2 of the following 3 features in your logo:

- Change the color of the turtle’s line as it moves! In Netlogo, colors can be represented as numbers. This means you can create a color gradient using simple mathematical operators (e.g., addition, subtraction, multiplication, etc.) and/or the “random” function. You can view the color dictionary here: <https://ccl.northwestern.edu/netlogo/docs/programming.html#colors>
For example, let’s say we made a turtle and asked it to **set color red**. Red corresponds to the number 15. To change its color to orange, we must add 10. We can ask the turtle to **set color color + 10**.
For even more fun, use the **random** command. Try **set color color + random 10**, then try other values too!
- Use the “sprout” command to spawn multiple turtles so that part of the visual appeal of your logo is in the dynamics of multiple turtles drawing your logo. You can **ask patches** to **sprout** 1 or more turtles. Use these two commands to create a dynamic scene where parts of your logo are drawn either simultaneously or sequentially.
- Use equations to generate images, lines or shapes. For example, the sin, cos or log functions may generate interesting patterns.



If you include the command **reset-ticks** in your setup procedure, this make-circle procedure will draw a circle.

```
to make-circle
  ask turtle 0 [setxy (10 * cos ticks) (10 * sin ticks)]
  tick
end
```

Experiment with other mathematical functions and values to generate your own interesting shapes.