CS 103000
Prof. Madeline Blount

Week 0
hello world, cont.

Dall-E 2: cats learning C++ in the forest on '90's technology

PARTICIPATION ACTIVITY | 1.1.5: Computational thinking: Creating algorithms to draw shapes using turtle graphics.

A common way to become familiar with algorithms is called turtle graphics: You instruct a robotic turtle to walk a certain path, via instructions like "Turn left", "Walk forward 10 steps", or "Pen down" (to draw a line while walking).

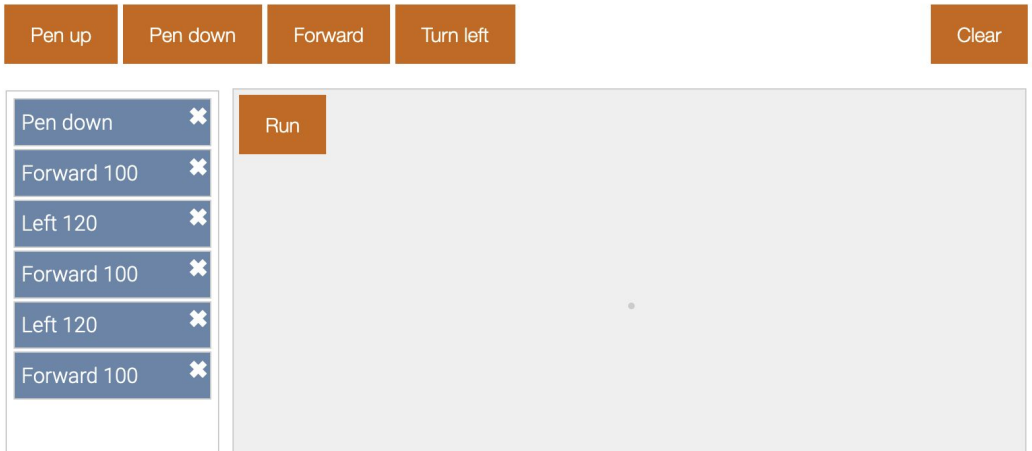
The 6-instruction algorithm shown below ("Pen down", "Forward 100", etc.) draws a triangle.

1. Press "Run" to see the instructions execute from top to bottom, yielding a triangle.
2. Can you modify the instructions to draw a square? Hint: "Pen down", "Forward 100", "Left 90", "Forward 100", "Left 90"—keep going!
3. Experiment to see what else you can draw.

Note: The values after a Left or Right turn are angles in degrees.

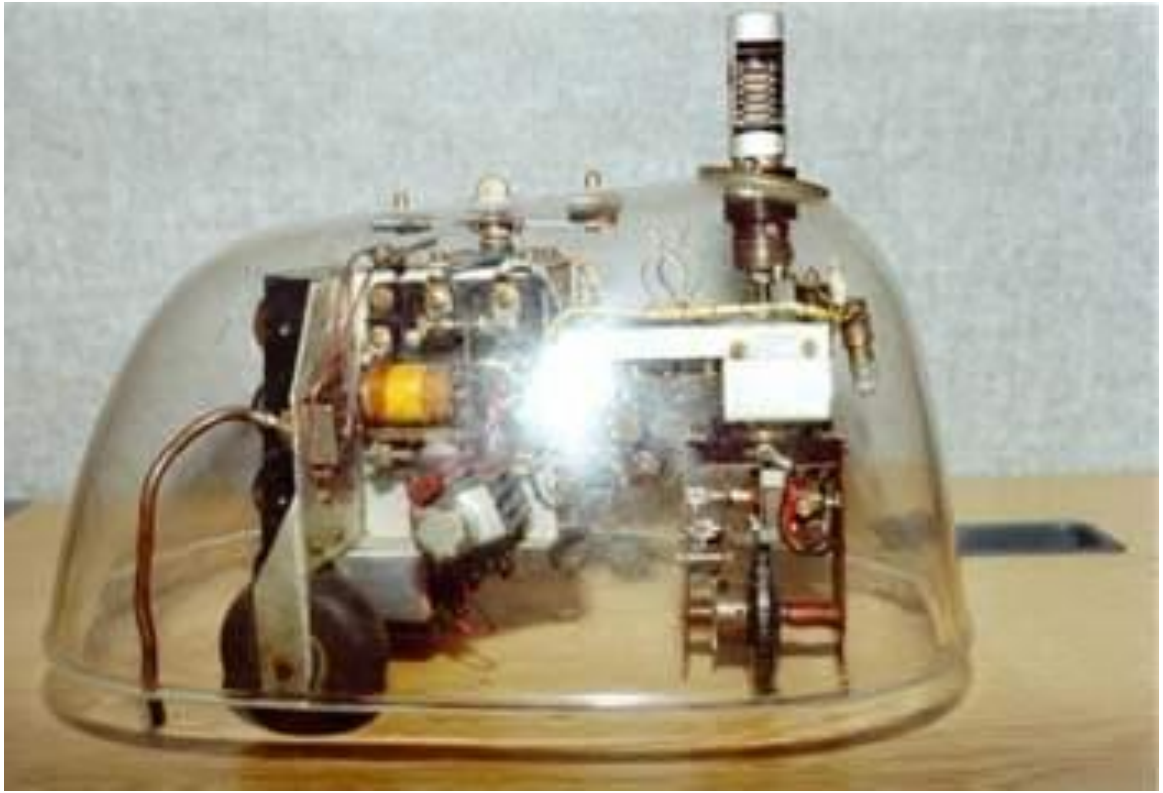
How to:

- Add an instruction: Click an orange button ("Pen up", "Pen down", "Forward", "Turn left").
- Delete an instruction: Click its "x".
- Move an instruction: Drag it up or down.



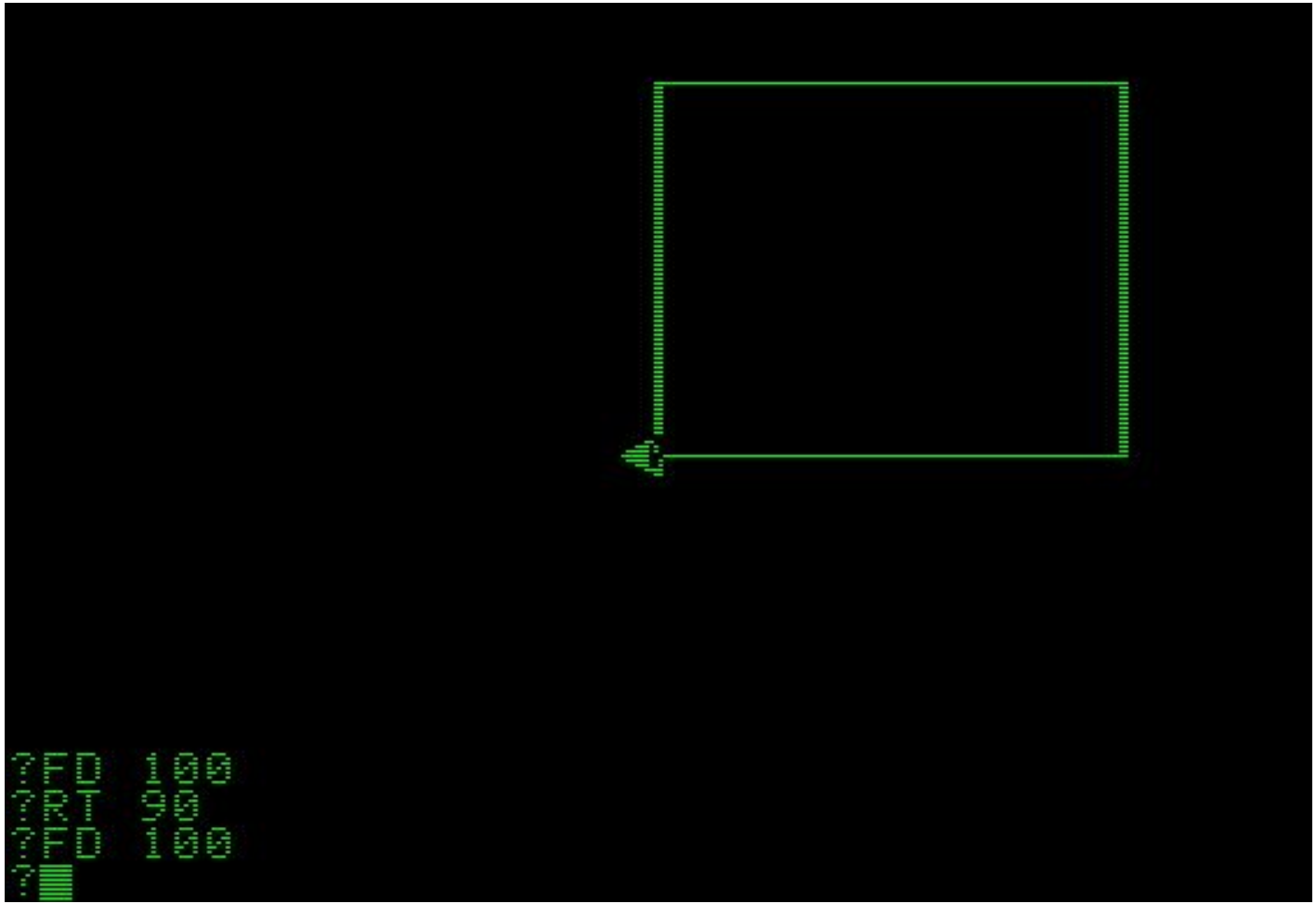
Grey Walter:
1940’s, UK
Elmer & Elsie
🐢🐢

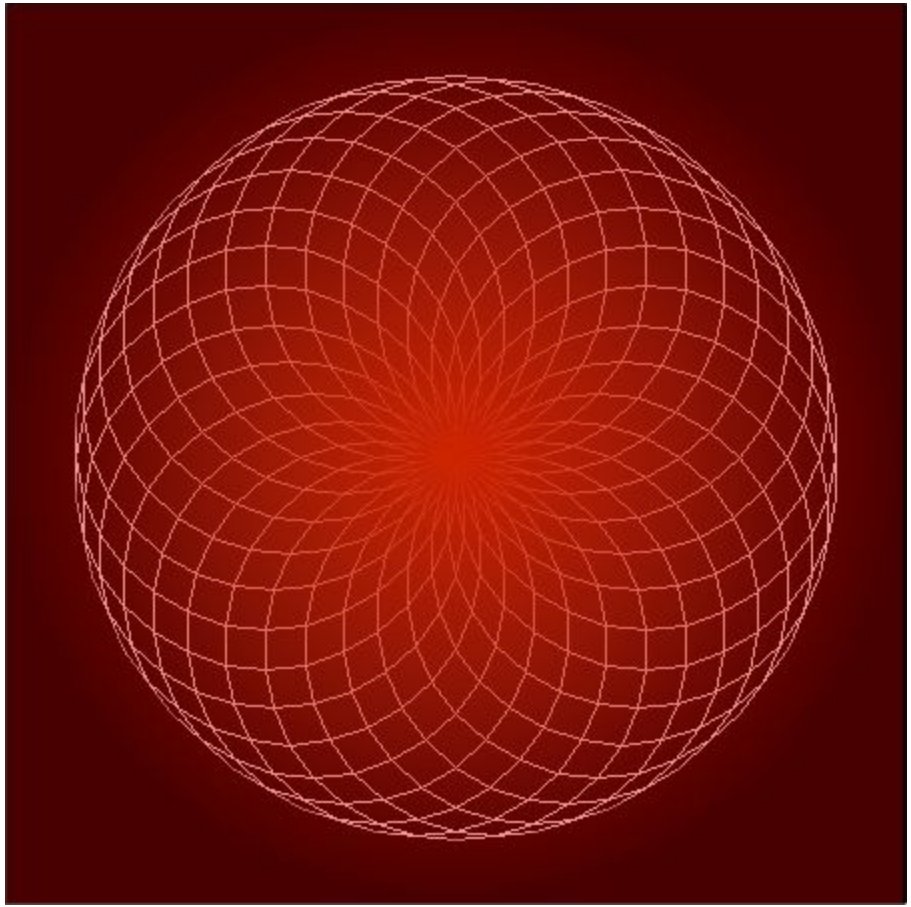
ELectro
MEchanical
Robots, Light
Sensitive



LOGO =
“body-syntonic”

Cynthia Solomon, Wally Feurzeig, Seymour Papert, 1969 Cambridge, Mass.: LOGO

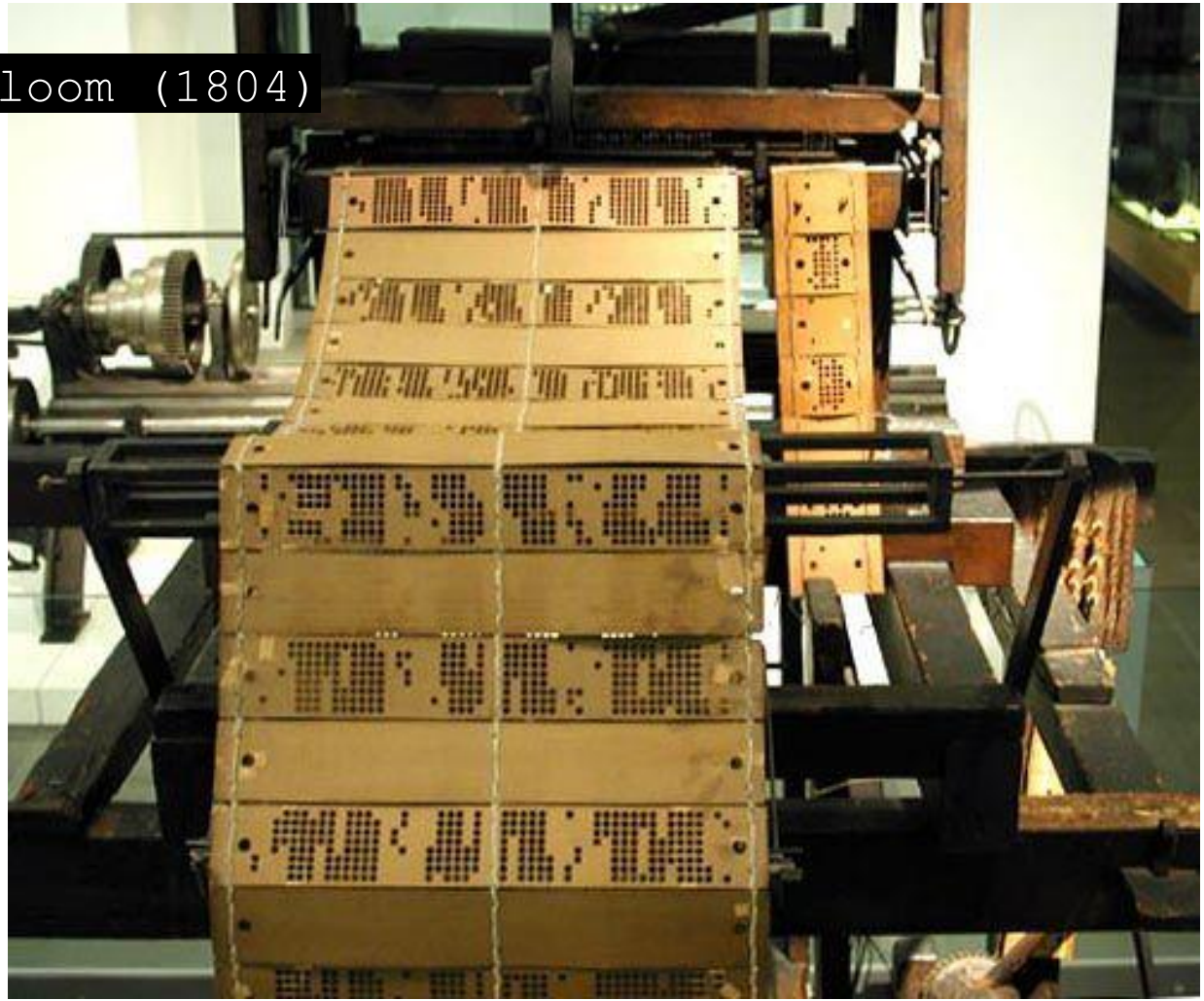

?FD 100
?RT 90
?FD 100
?



textiles

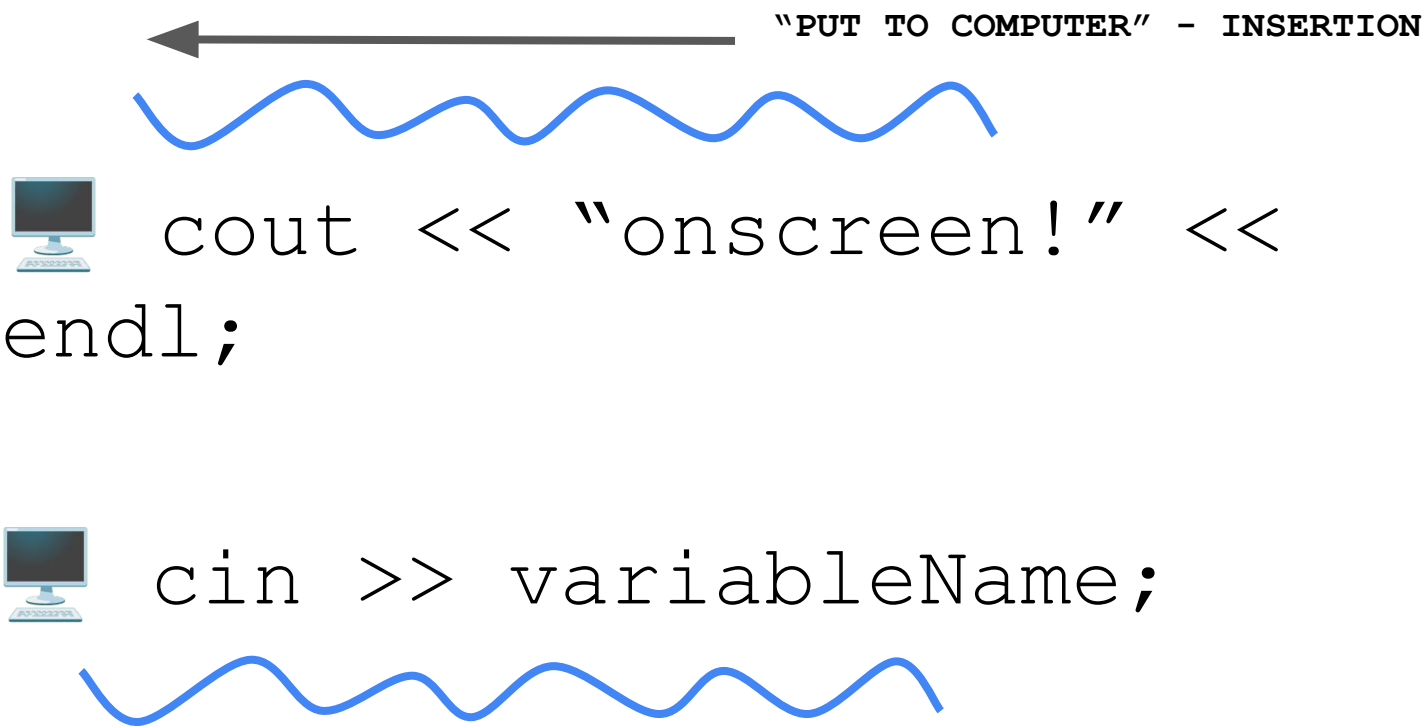
Wikimedia

Jacquard loom (1804)



Wikimedia

STREAMS:



cout = "character output" cin = "character input"