



COMP 125: Motion

Week 09, Lecture 14



Agenda: Motion

1. General concepts
2. The role of the background
3. Framerate
4. Examples
 - a. Bouncing Ball
 - b. Line fill

Motion in P5

How can we go from static pictures to movement?

- Option 1: “Real” motion
 - Keep track of each pixel
 - Grab each pixel
 - Do some math
 - Put the pixel down again
- In short: no.
 - Too much computation
 - Too much *doing*

Motion in P5

How can we go from static pictures to movement?

- Option 2: Fake it!

- Flip book:
- Each “draw()” loop makes a new canvas
- Layer each canvas on top of the previous
- Gives the impression of motion without requiring complexity!

- Example:

- Moving ball
- Make it stay inside the canvas

Role of the Background

- Remove the background? See each frame!
- Example:
 - Moving ball, but without the background

Frame Rate

- How many flipbook pages per second?
- Set the frame rate in P5:

`frameRate(value)`

- Get the current frame rate in P5:

`value = frameRate()`

Example:

- Show the frame rate for the bouncing circles
- Lower the frame rate
- Look at the background issue again for clarity

Examples

- Revisiting bouncing ball from the beginning
- Line-filling