



COMP 125: Mouse Events

Week 10, Lecture 15



Agenda

- Mouse Events
 - `mouseIsPressed`
 - `mouseClicked()`
 - `mousePressed()`
 - `mouseReleased()`
- Examples!

The Mouse

- JavaScript can interact with the mouse
- P5 makes it even easier!
- We can:
 - Know where the mouse is (mouseX, mouseY)
 - Know if the mouse is held, pressed, released, and on which button
 - Have our code make changes in response to events

mouseIsPressed

- Special variable
- Boolean
- Example:
 - Change the color of a ball if the mouse is held

mouseClicked()

- Special function
- Call the code within if a click (press+release) event is observed
- Example:
 - Change the color on click

mousePressed(), mouseReleased()

- Special functions
- Called when either event is noticed
- Example:
 - Make a circle stop growing when the mouse is pressed, then continue growing when released, changing color each time

More Examples

● Growing circle example

- Now make it reverse when it hits the edges of the canvas
- Introducing: the temp variable!
- Pitfalls: inverting circle

● Bouncing balls examples

- Keep the ball all the way inside the canvas (change the boundaries to give the appearance of bouncing off the edge of the circle, given by a pad of $\text{diameter}/2 + 1$)
- Make the ball reverse direction when you click the mouse (hint: use the P5 function `mouseClicked()`)
- Make the ball slow down when the mouse is held (hint: use the P5 functions `mousePressed()` and `mouseReleased()`)
- Make the ball shrink slightly every time it hits a boundary (hint: change the diameter in the same way you change X and Y any time a boundary is hit) until it's only 1 pixel in diameter
 - Functions!
 - Pitfalls: padding, minimum diameter