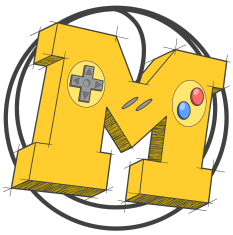

Lecture 12

Announcements

- p2_gold is due Wednesday. Please keep our expected scope in mind– these need not be huge experiences.
    - **Note :** "Juice" is not a criteria on the p2_gold rubric. A small amount of it, chosen carefully, can boost your game's guidance however.

- Regrades : If you ever feel grading does not match the assignment spec or assignment rubric, please submit a regrade request via email. It takes me some time to process them, but may be worth your while.

- Flappy Bird re-implemented in Mac OSX Finder

- Fun : Visual Level Design
    - Half Life Risotto Code : https://www.youtube.com/watch?v=BQLEW1c-69c&feature=youtu.be&t=4623

Sketchfab / Unity Asset Store (Finishing *Secret Snail*)

- (Begin from Secret Snail)
- Project 2 onward, you are permitted (and encouraged) to use external assets, so long as the license is permissive and you provide credit (in credits.txt).
- Raspberry Pi : The power of a healthy, rich community
    - Will talk about this more later during our business lecture.
- Unity's "healthy, rich community" includes the asset store.
    - Permitted on p2 and p3 so long as *most* of the assets (which includes code) in your game are self-made.
- Alternatives
    - Sketchfab.com
    - OpenGameArt.org
    - Freesound.org
    - Misc texture sites.

Juice (Technical Demonstration : Download from repo here)

- Juicy Game Examples
  - Juicy Spaghetti
- Video : Juice it or Lose it
- Juiciness by way of timing camera movements to music (music and audio are perhaps the most powerful ways to juice a game).
- South Park-Style Movement
  - South Park Clip
  - Only requires one sprite (one image file) to look good.
  - Example 1
  - Example 2
- Extra example Project 1 : Falling Impact Spheres
- Hooke's Law
  - Originally used to model the motion of linear springs.
  - Can be used with motion, scale, and any other numeric property to create eye-catching effects (squishiness, springiness, etc).
  - Surprising Use Case : Character Select (enthusiastic organisms often jolt like a spring).
  - Very impactful (Take it from World of Goo!)
- Technique : Separating Visuals from actual gameobject.
- Easing
  - Simple ("transform.position = Vector3.Lerp(transform.position, dest, 0.1f))
  - Easing / Hooke's Law Example Project (Bat enemy)
- Easing (Advanced)
  - Using animation curves, we can get very particular about motion.
- Screen Shake
- Particle Systems / Particle Manager
  - Particles used in this brief horror-game experiment for blood and sparks.
- Trail Renderer ("Add Component -> LineRenderer")
- Sorting Layer Trick
  - Q: How are the clouds in this video organically, randomly generated?
  - A: We randomly spawn instances of an "Orb" prefab.
  - A: Each "Orb" is one puff ball gameobject, and a "shell" outline gameobject parented to it.
  - A: If the puff ball is at layer order *x*, we give the shell a layer order of *x-1*.
  - A: In this way, the shells intersect, but the intersection is invisible because the puff balls cover it up.
  - A: We do not see the puff ball intersection because the puff balls all have the exact same color.
- Vlambeer Juiciness Tips