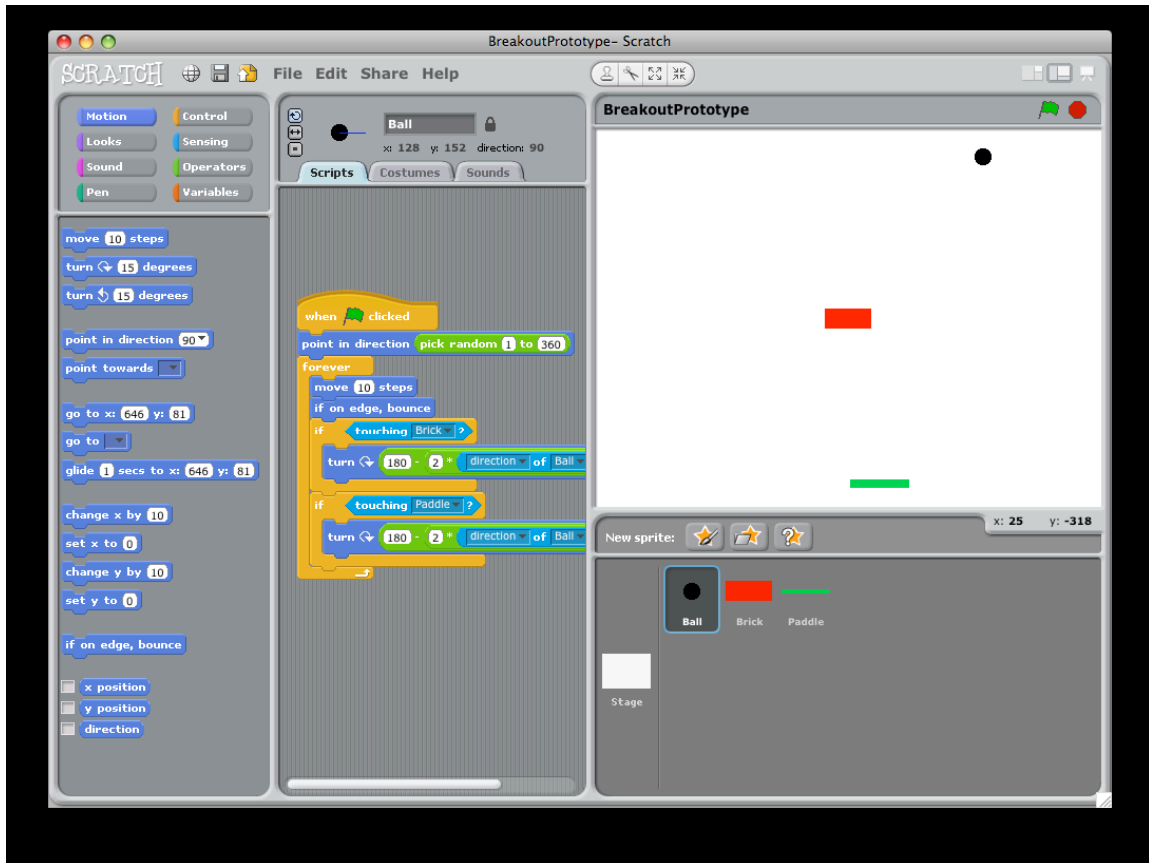


Game and Learn:
An Introduction to Educational Gaming
11. Case Study: *Scratch*

Ruben R. Puentedura, Ph.D

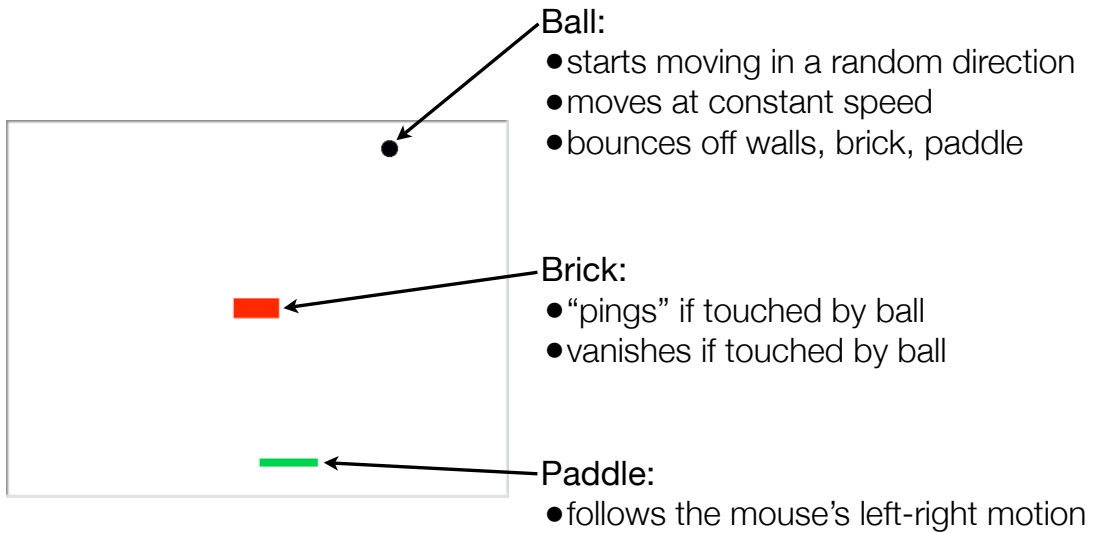
Scratch



Breakout



Breakout Prototype Design



Breakout Prototype Code

```
when clicked
  point in direction pick random 1 to 360
  forever
    move 10 steps
    if on edge, bounce
    if touching Brick-?
      turn 180 - 2 * direction of Ball degrees
    if touching Paddle-?
      turn 180 - 2 * direction of Ball degrees
```

Ball

```
when clicked
  show
  forever
    if touching Ball-?
      play note 60 for 0.1 beats
      hide
```

Brick

```
when clicked
  forever
    set x to mouse x
```

Paddle

Resources Cited

- **Scratch:**

- *Scratch*. Online at:
<http://scratch.mit.edu/>

- *Scratch* Tutorials:

- *Scratch* Website. Online at:

- <http://info.scratch.mit.edu/Support>

- LearnScratch Group. Online at:

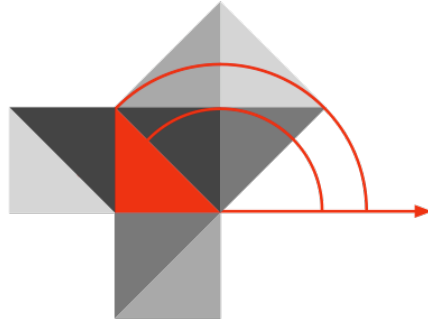
- <http://learnscratch.org/index.php>

- Ford, J.L. *Scratch Programming for Teens*. Course Technology. (2009)

- **Game Video:**

- *Breakout*: <http://www.youtube.com/watch?v=lb8dg1TuSKc>

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