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Pd 1

Programming base: Processing
Project: Pinball

Like the classical pinball game, the user will have several balls in his/her inventory. The user presses two different keyboard keys to move each to move one flipper up and down; there will also be another key to shoot the ball from the loading zone. The entire "field" will be composed of different objects which, if hit by the ball, will give the user points.

Classes/objects:
- Ball
- Obstacle
- Flipper
- Game

Instance Variables:
- Ball
  - int xvel, yvel
  - int xpos, ypos
  - boolean isAlive//particular ball?
    - If ball has not entered the zone of no return below the flippers.
- Flipper
  - int flipperState
  - int point//fixed point
  - float angle???
- Game
  - int numBalls
  - int points
- Obstacle
  - int xpos, ypos, size(radius? length?)
  - int/String type
  - int/String shape?

Methods:
- Ball
  - move() : Changes velocity of ball and moves
  - contact(Object other) : Returns true if touching other object

- ○ bump(Object other) : Changes velocity of ball based on object hit
- Game
  - ○ shoot() : Releases ball into field (if no ball currently in the field)
  - ○ isAlive() : Returns false if there are no usable balls left
  - ○ leftFlipper() : Moves left flipper
  - ○ rightFlipper() : Moves right flipper
- Flipper
  - ○ move() : Moves flipper
  - ○ getState(): returns flipper state (maybe to determine if it's falling down or moving up?)

TODO:
1) Create objects with basic physical properties
2) Places objects onto the gameboard and maintain functionality
3) Implement user experience
4) Finalize and optimize
5) Any add-ons if time