

3D Air Hockey

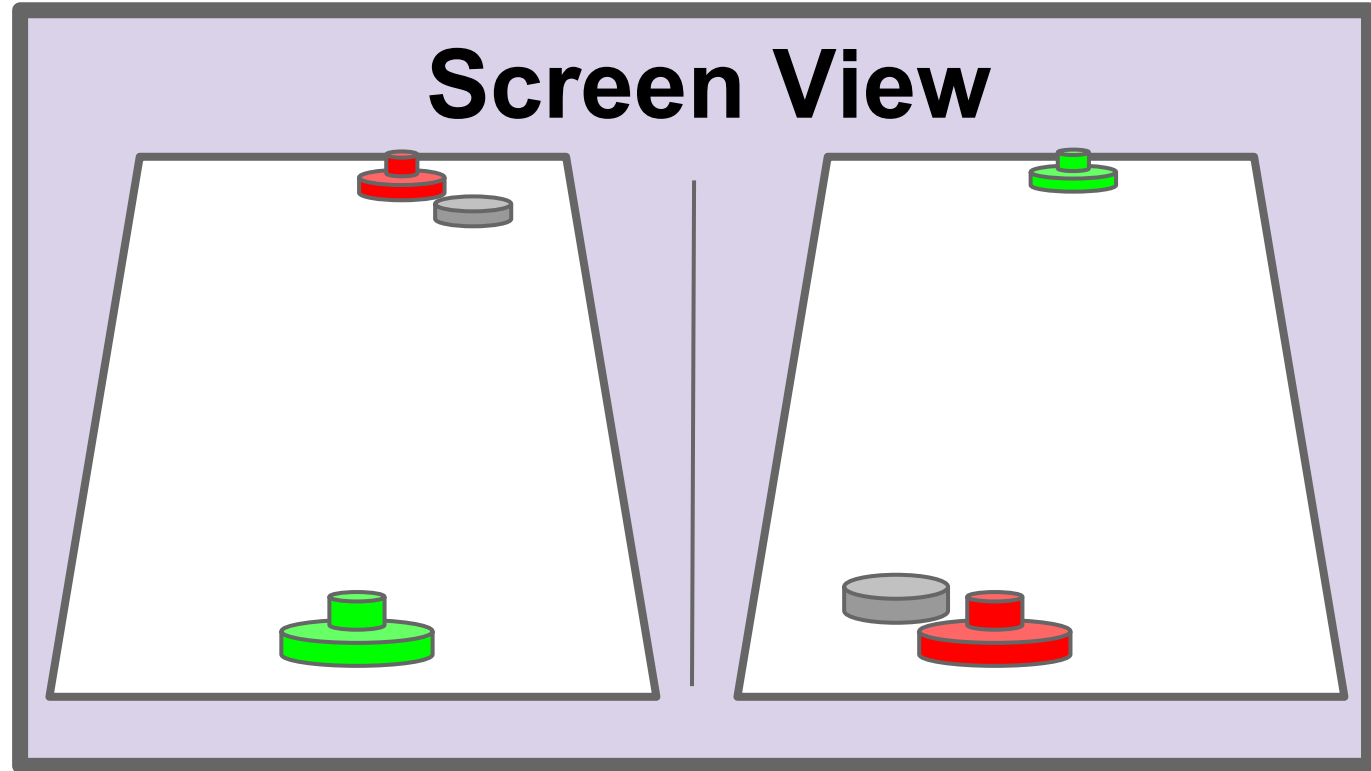
Team 7

Alex Chen, Abraham Shin, Yuqing Zhang

Overview

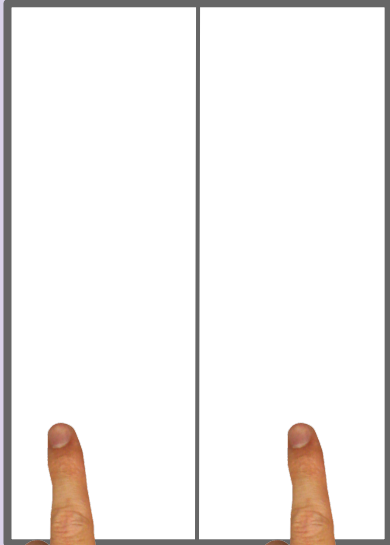


Overview

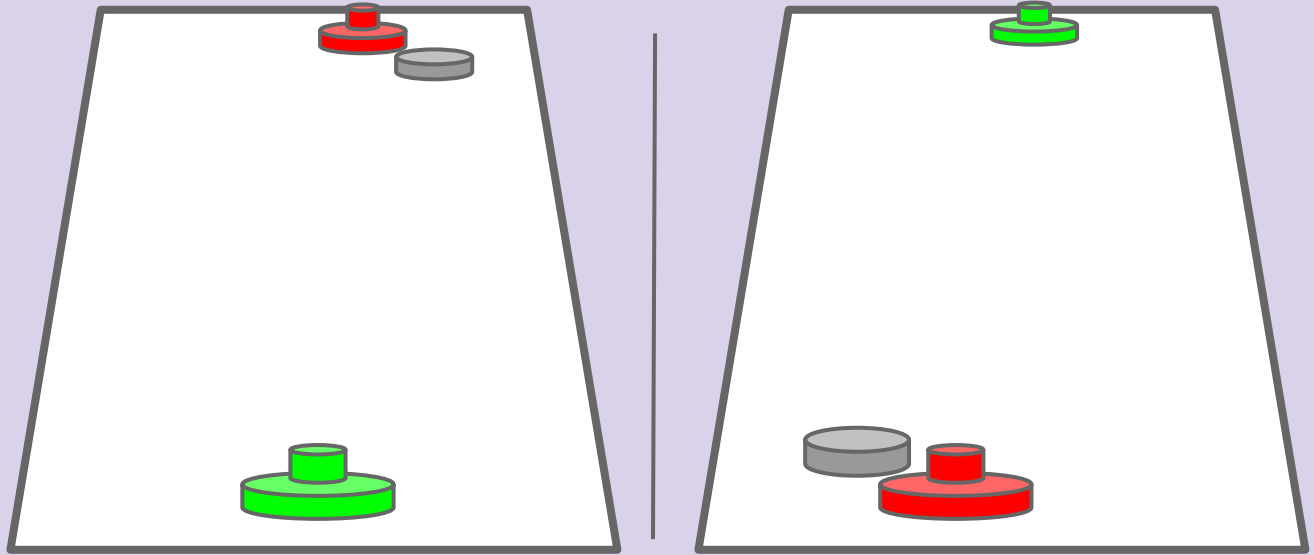


Overview

Mallet
Control

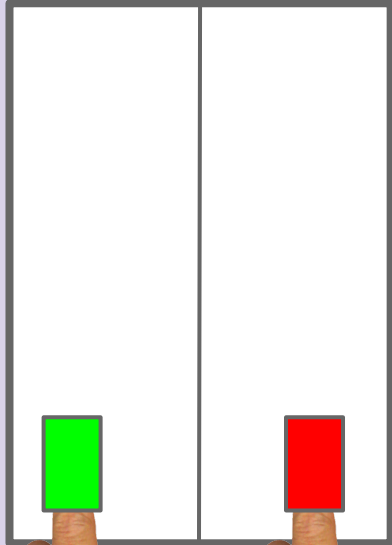


Screen View

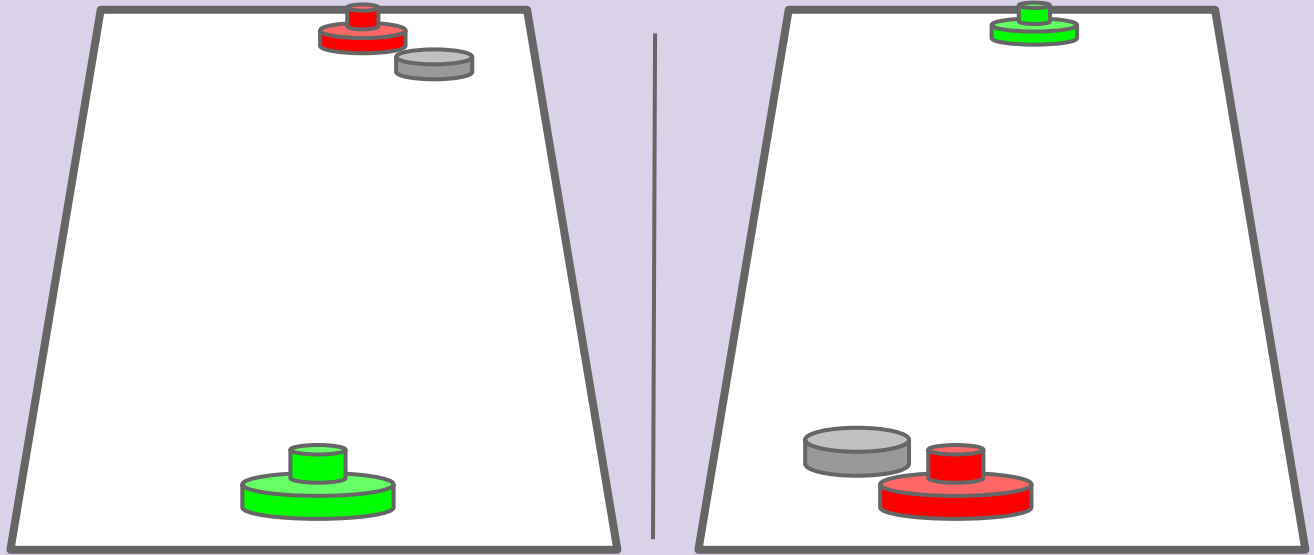


Overview

Mallet
Control



Screen View



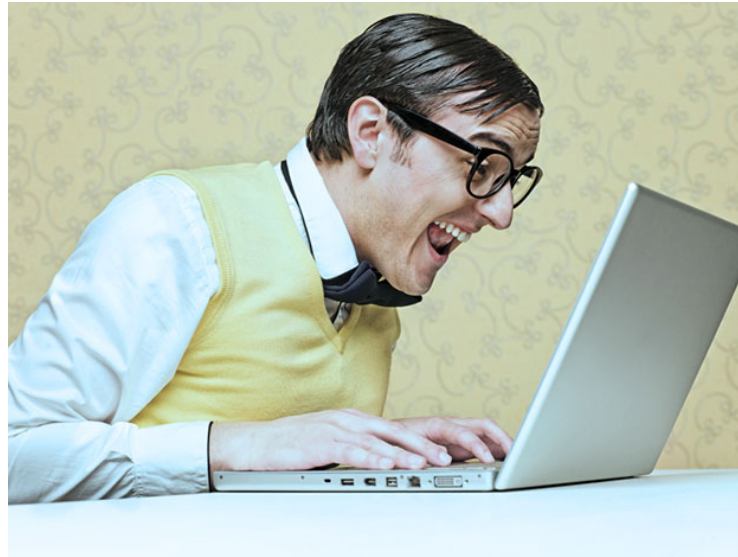
Motivation

- Great American pastime

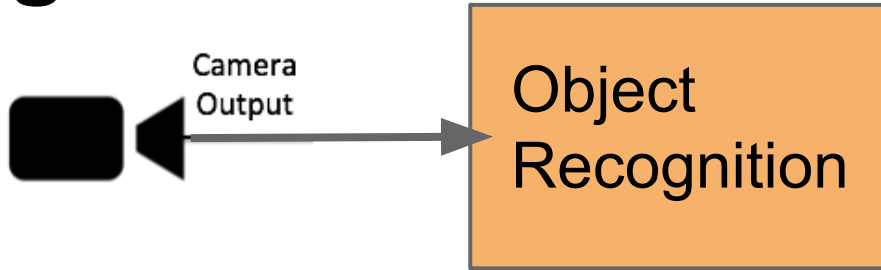


Motivation

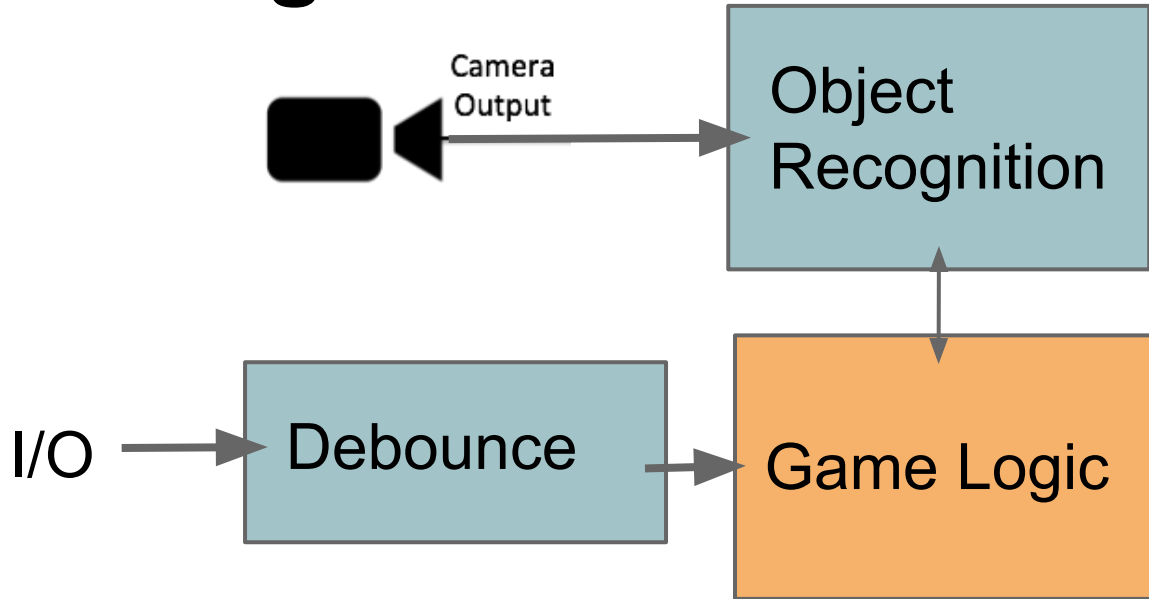
- Interesting physics and many challenging potential features



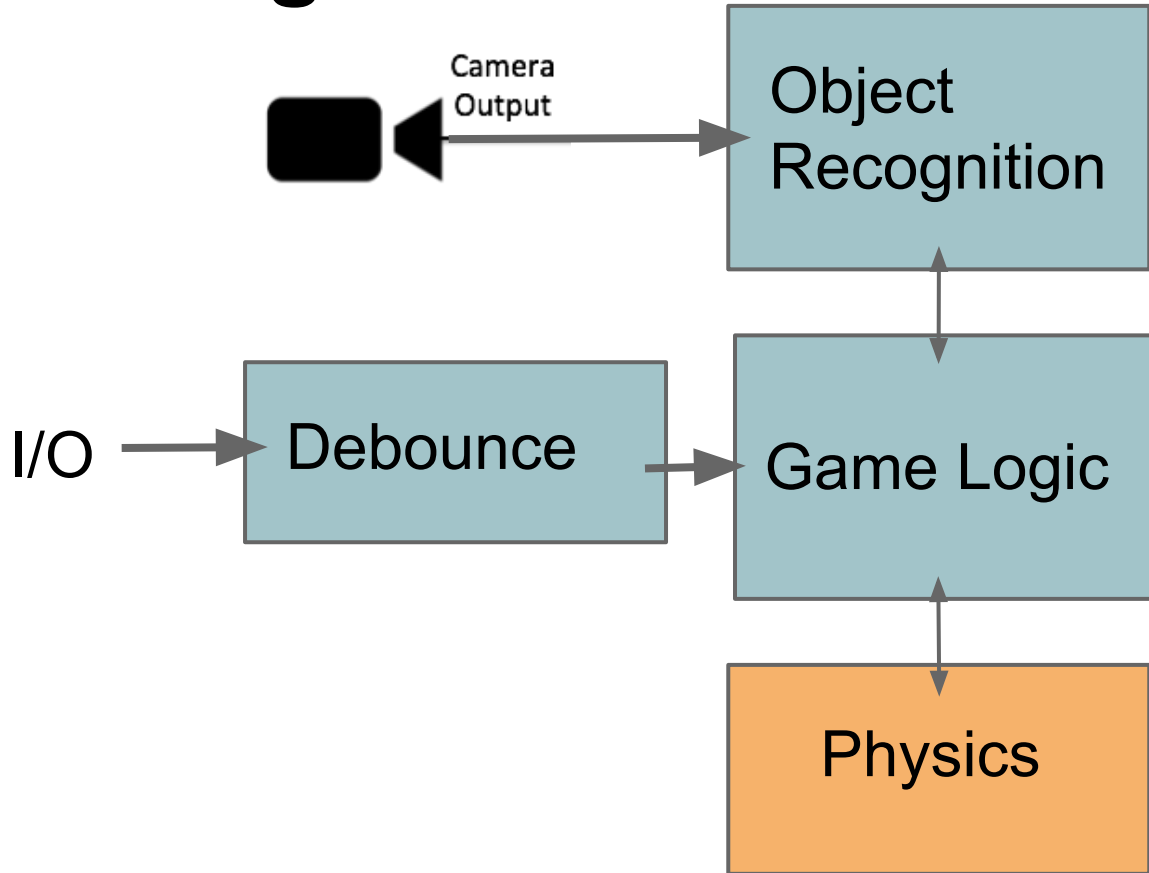
Design: Overall



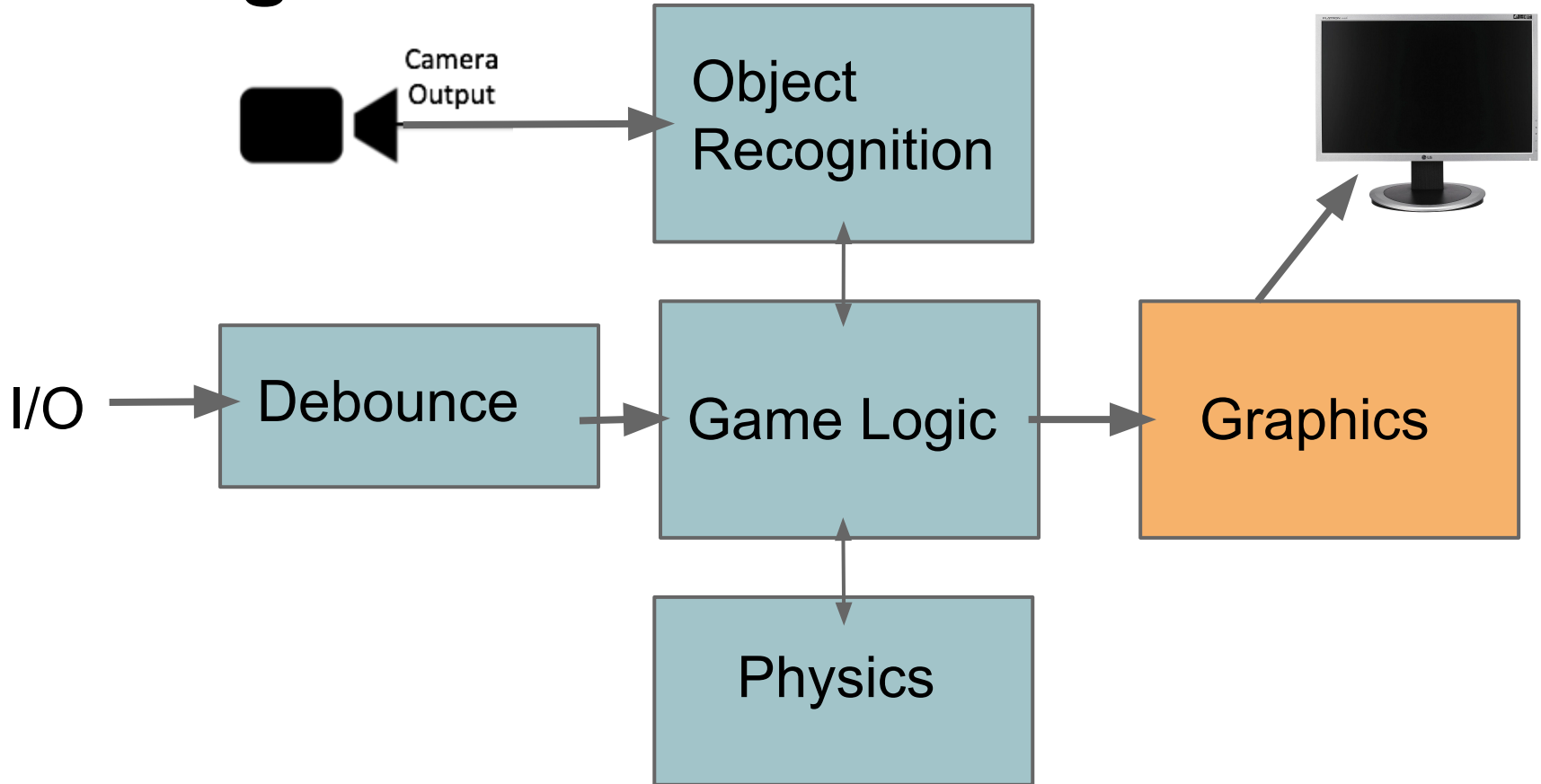
Design: Overall



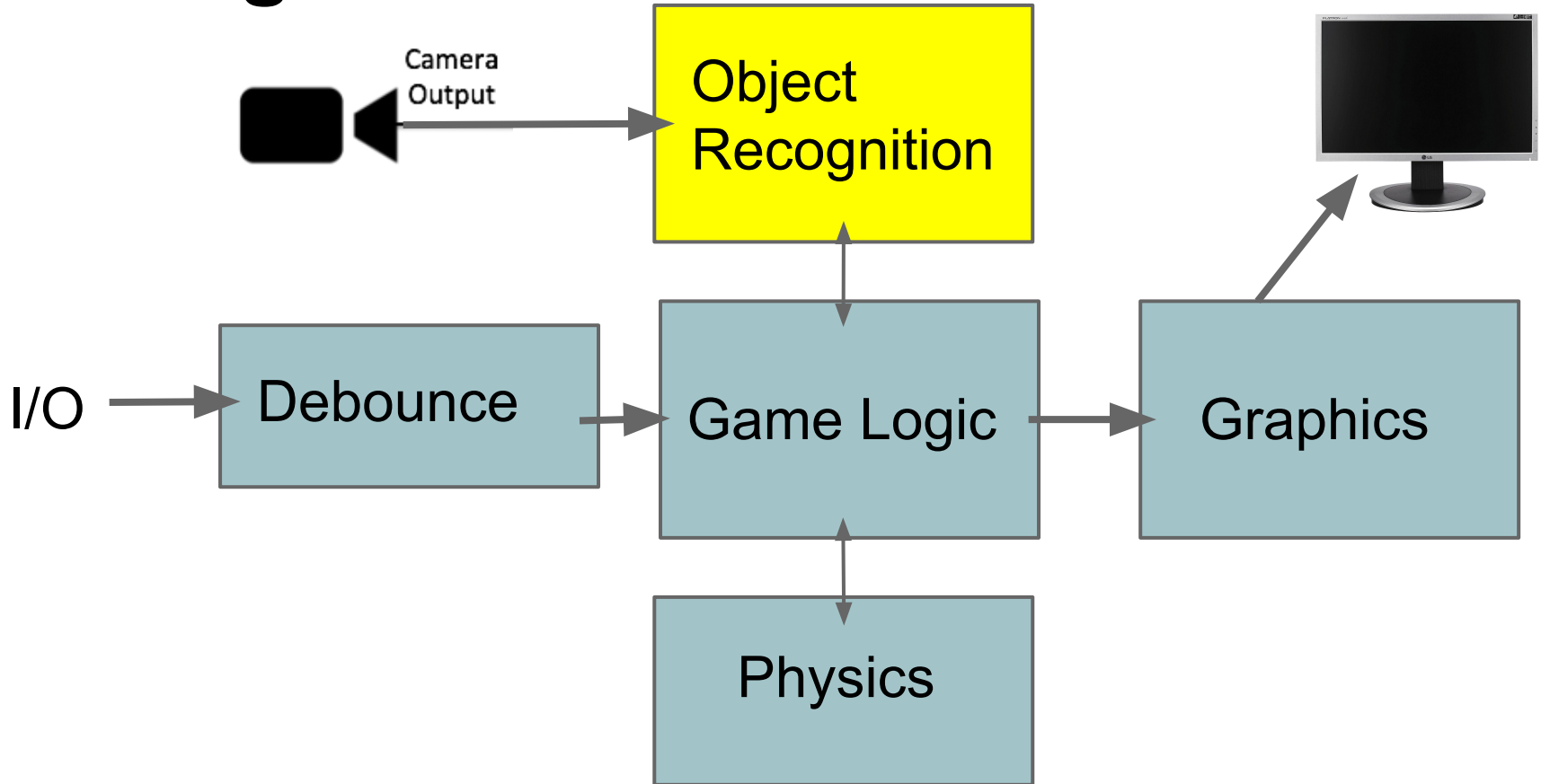
Design: Overall



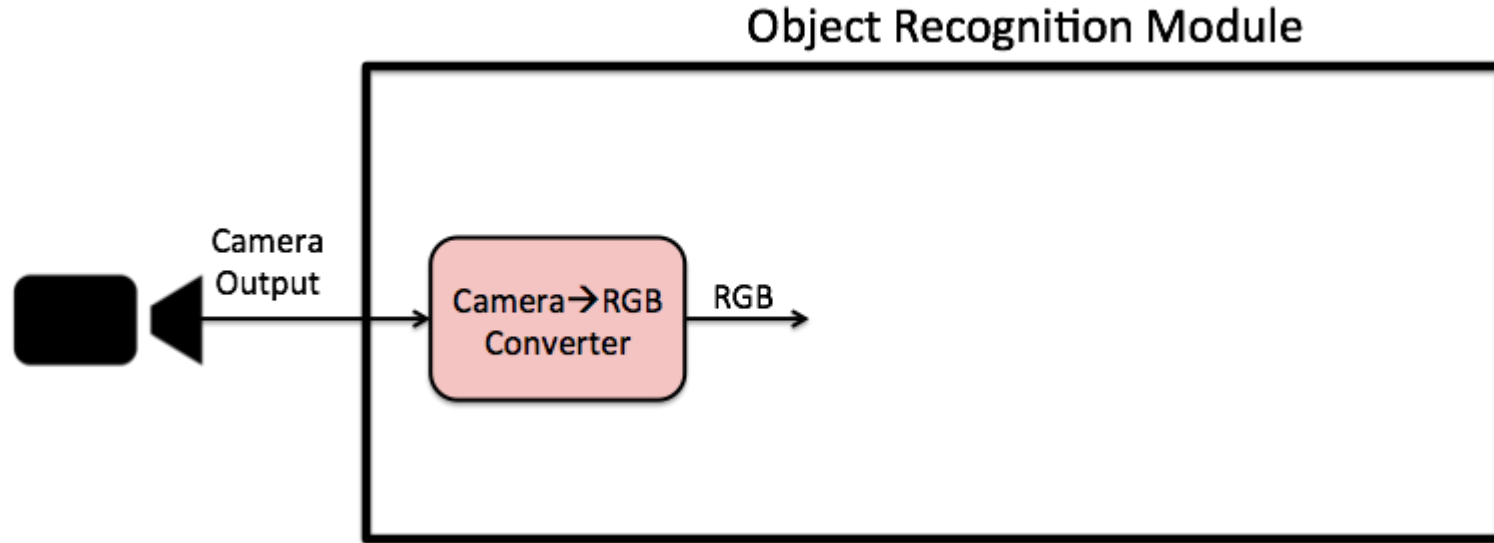
Design: Overall



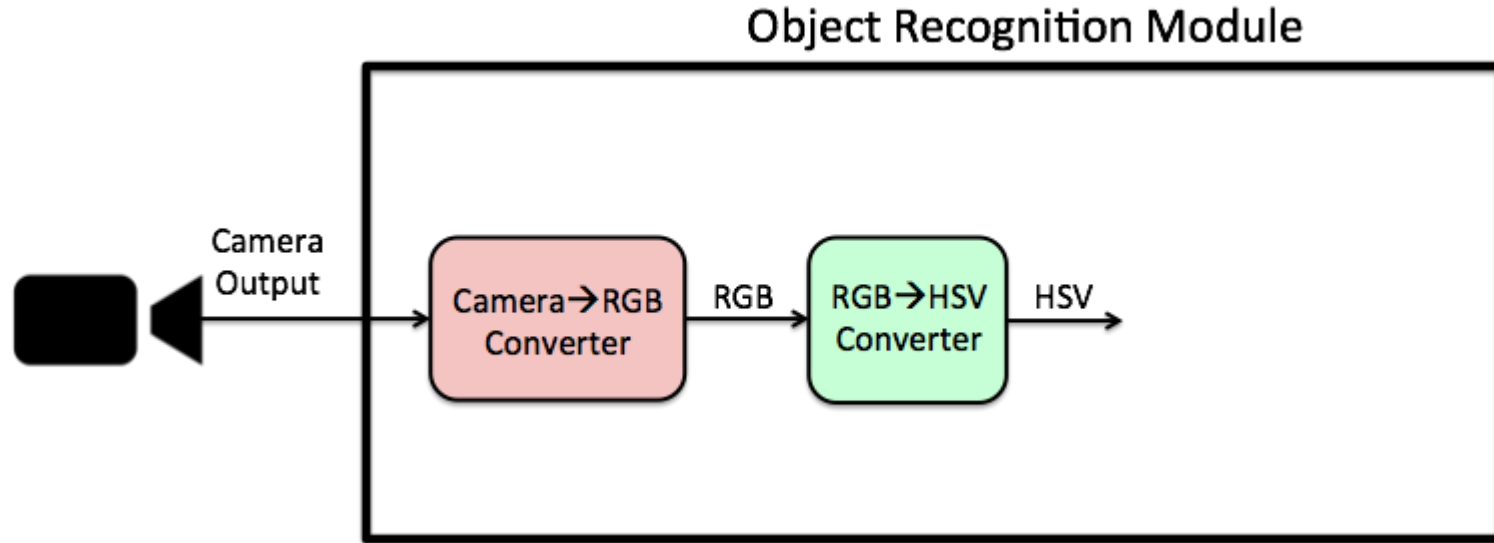
Design: Overall



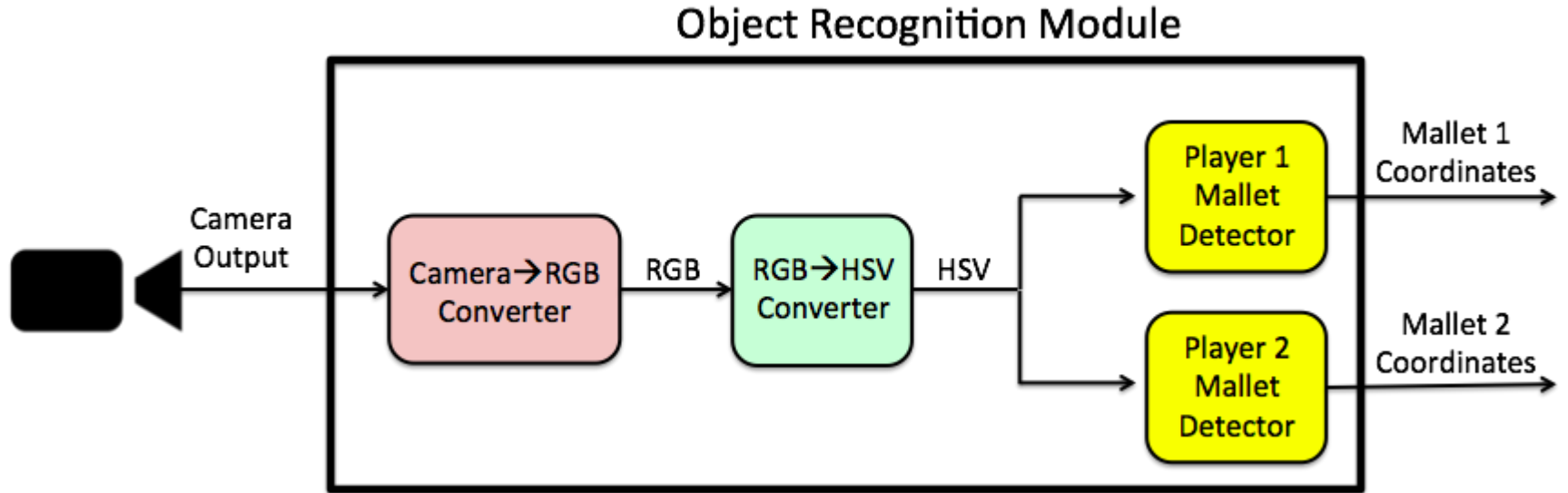
Design: Object Recognition



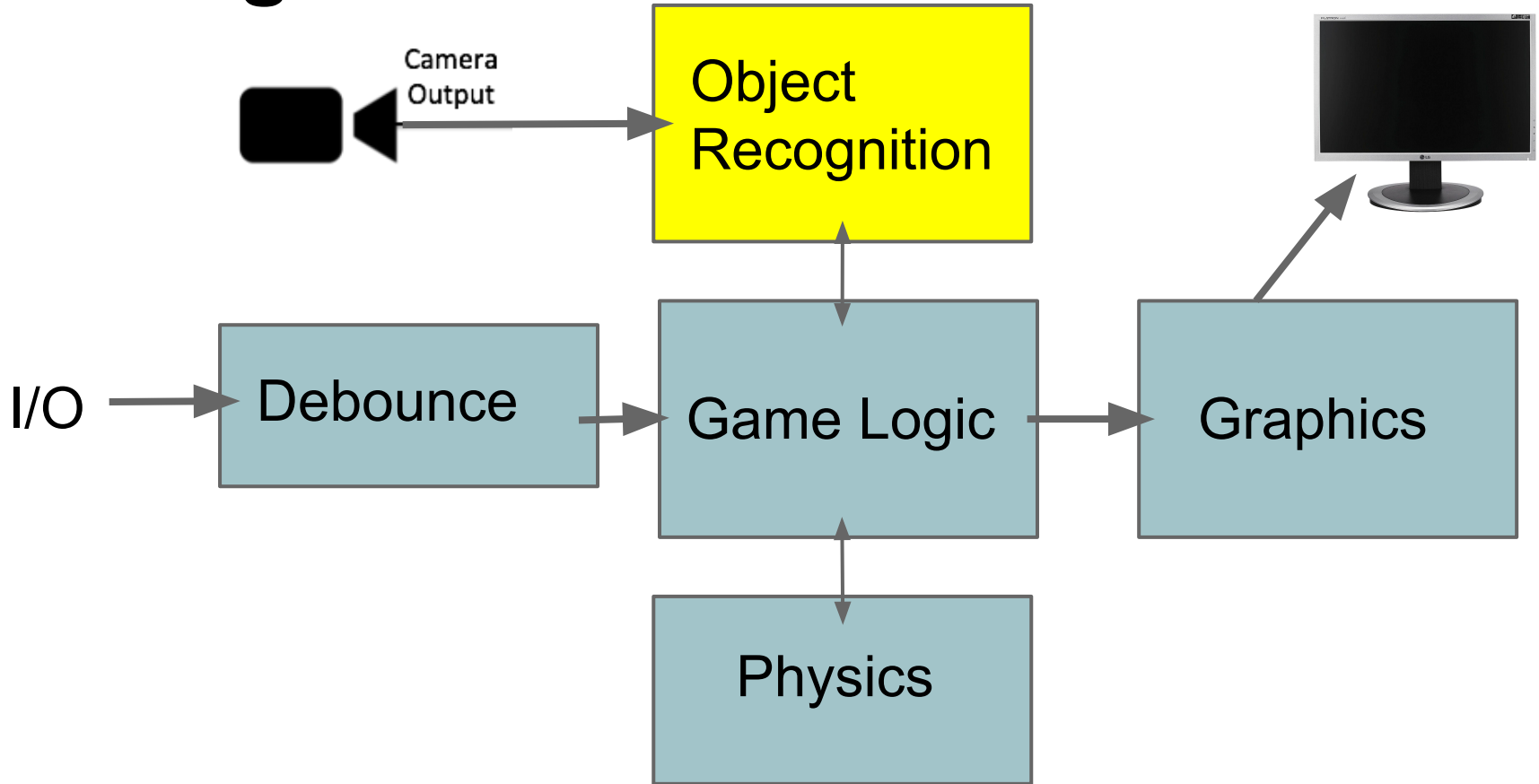
Design: Object Recognition



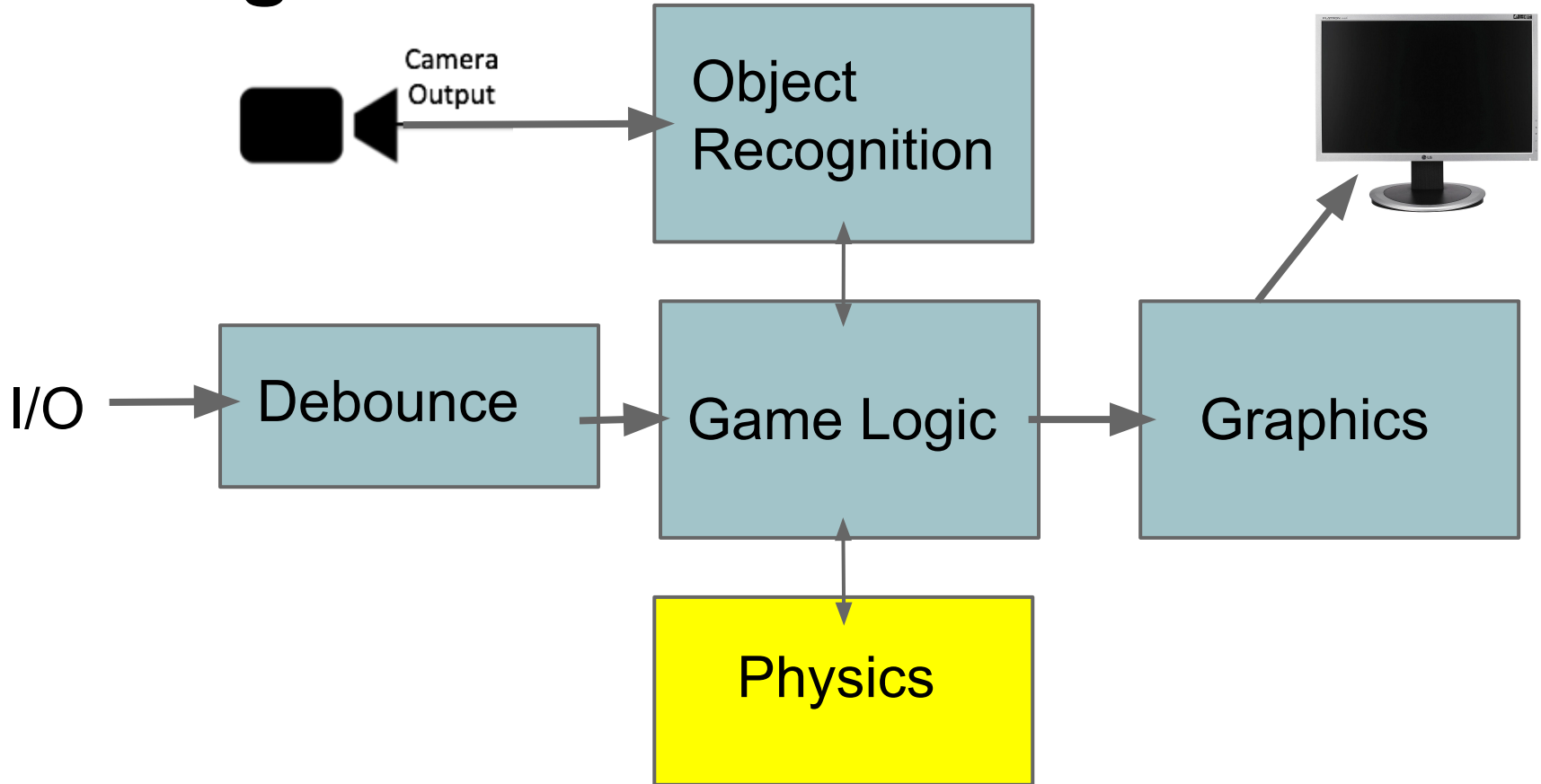
Design: Object Recognition



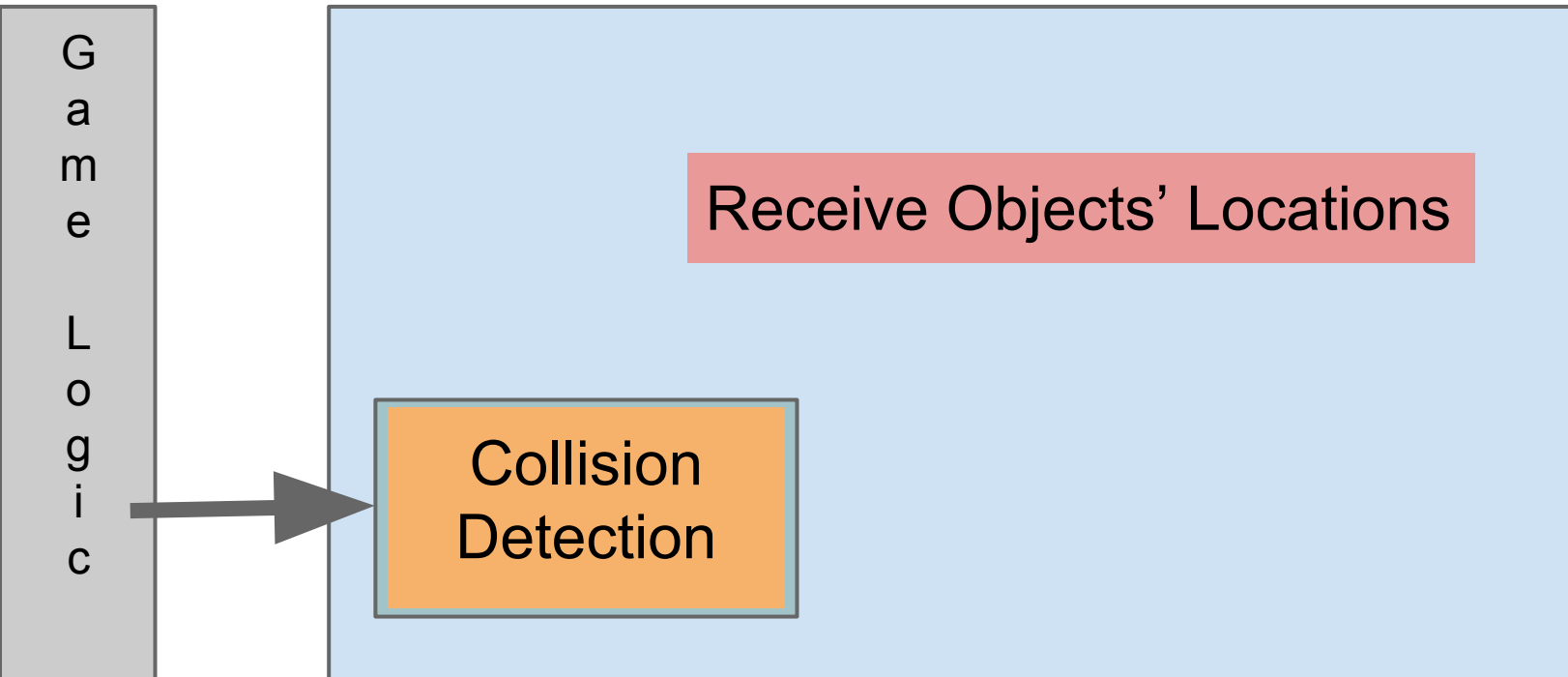
Design: Overall



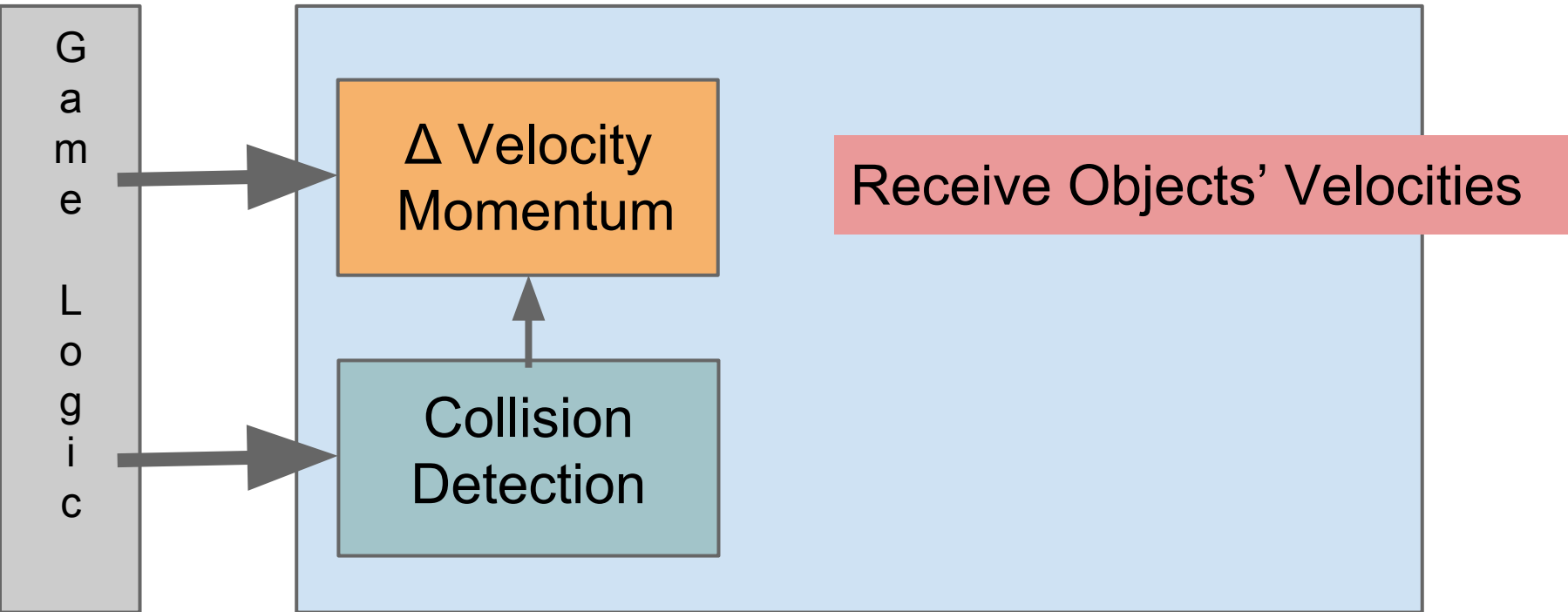
Design: Overall



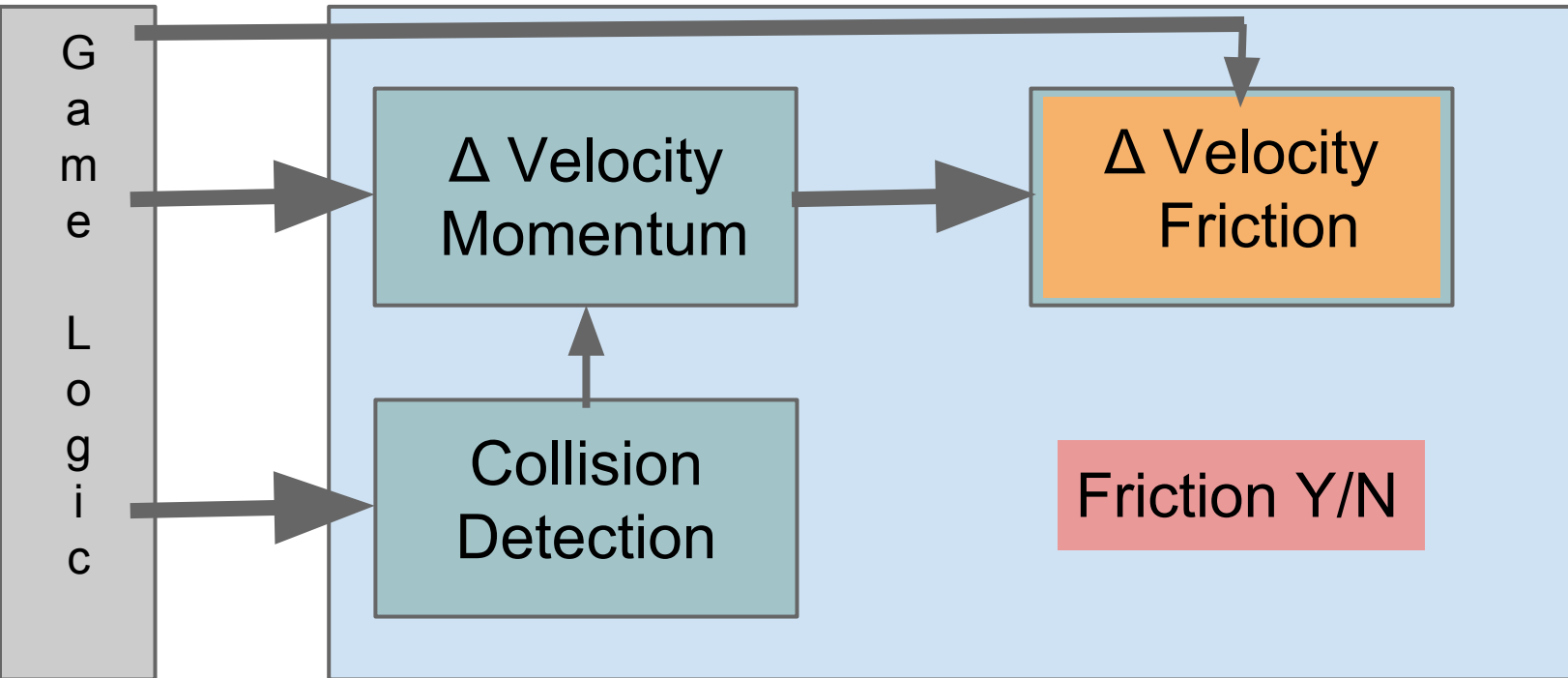
Design: Physics Engine



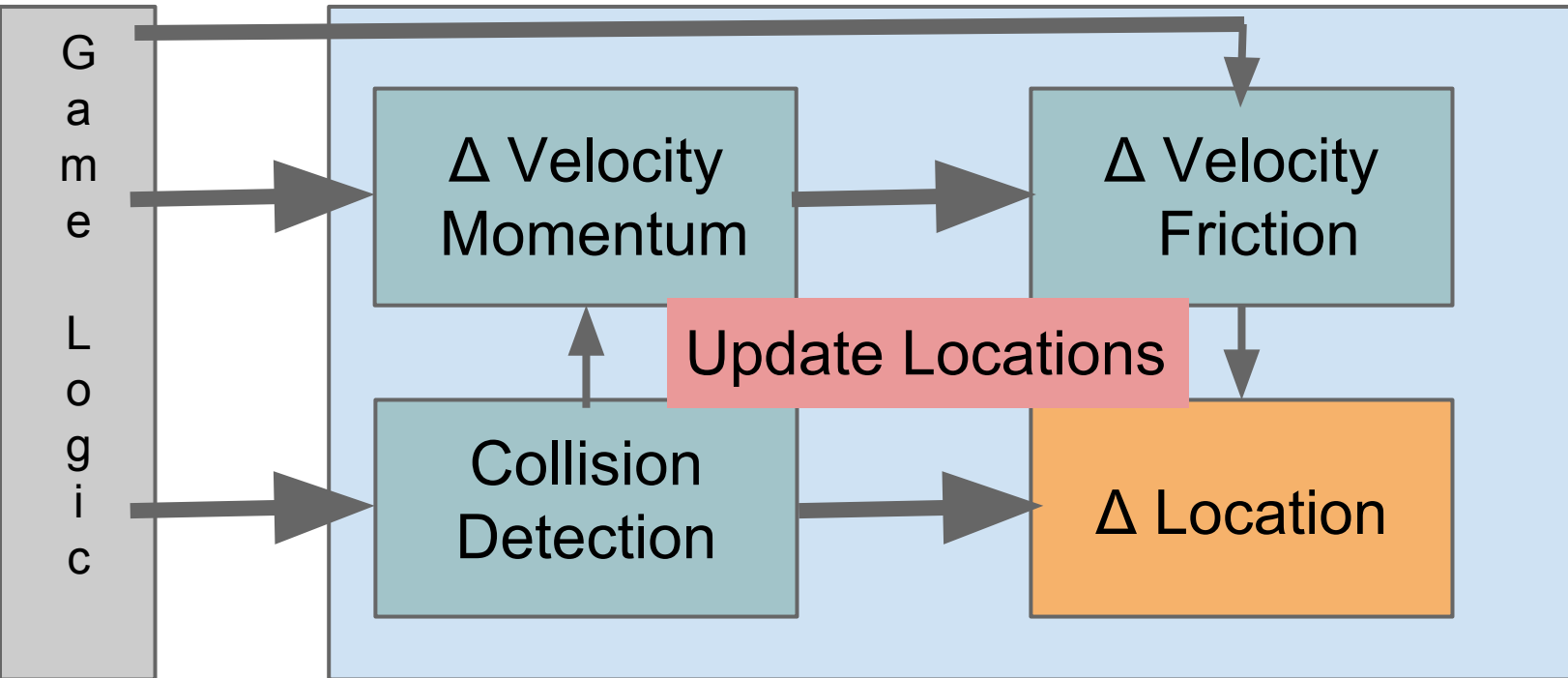
Design: Physics Engine



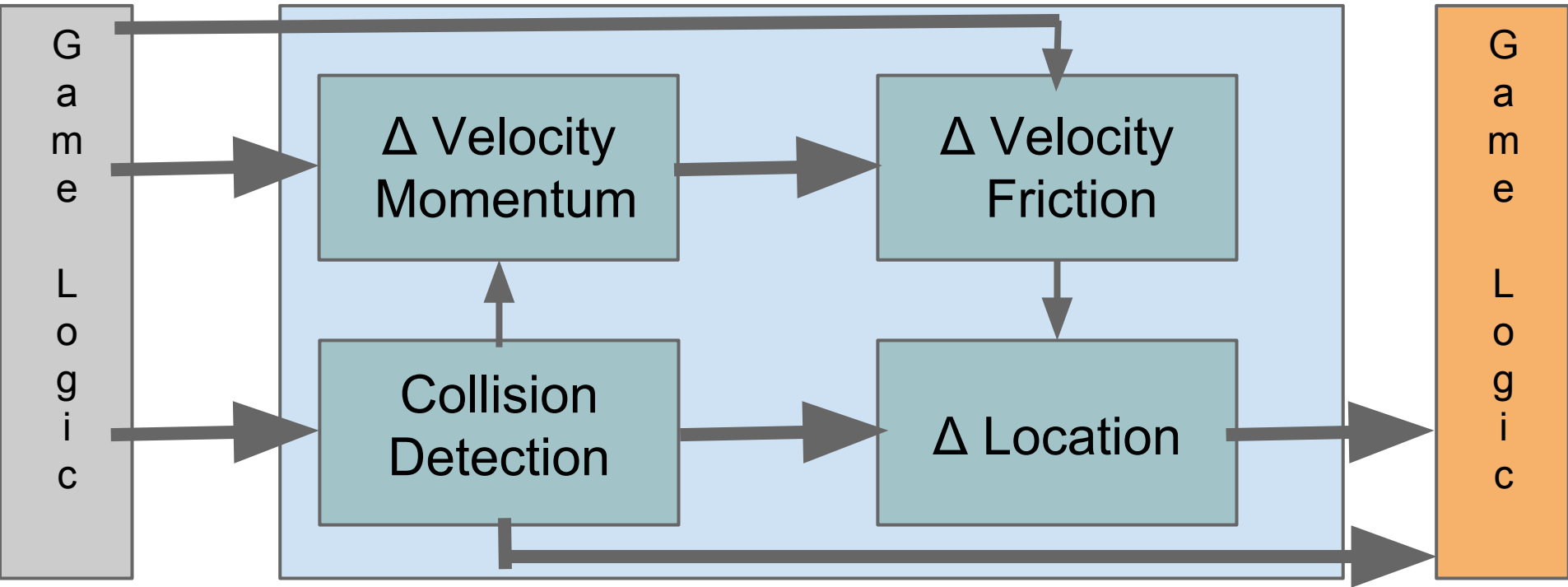
Design: Physics Engine



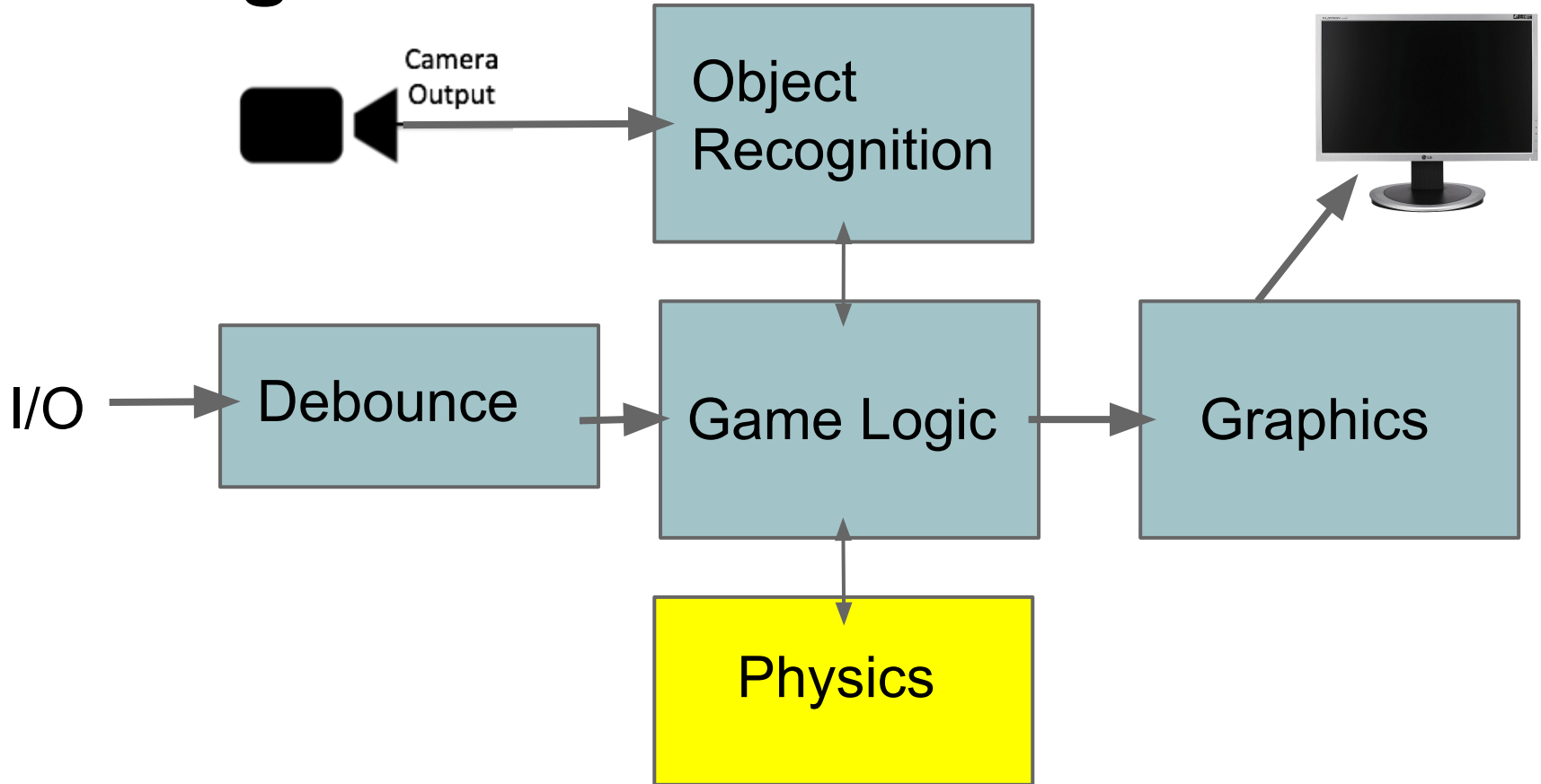
Design: Physics Engine



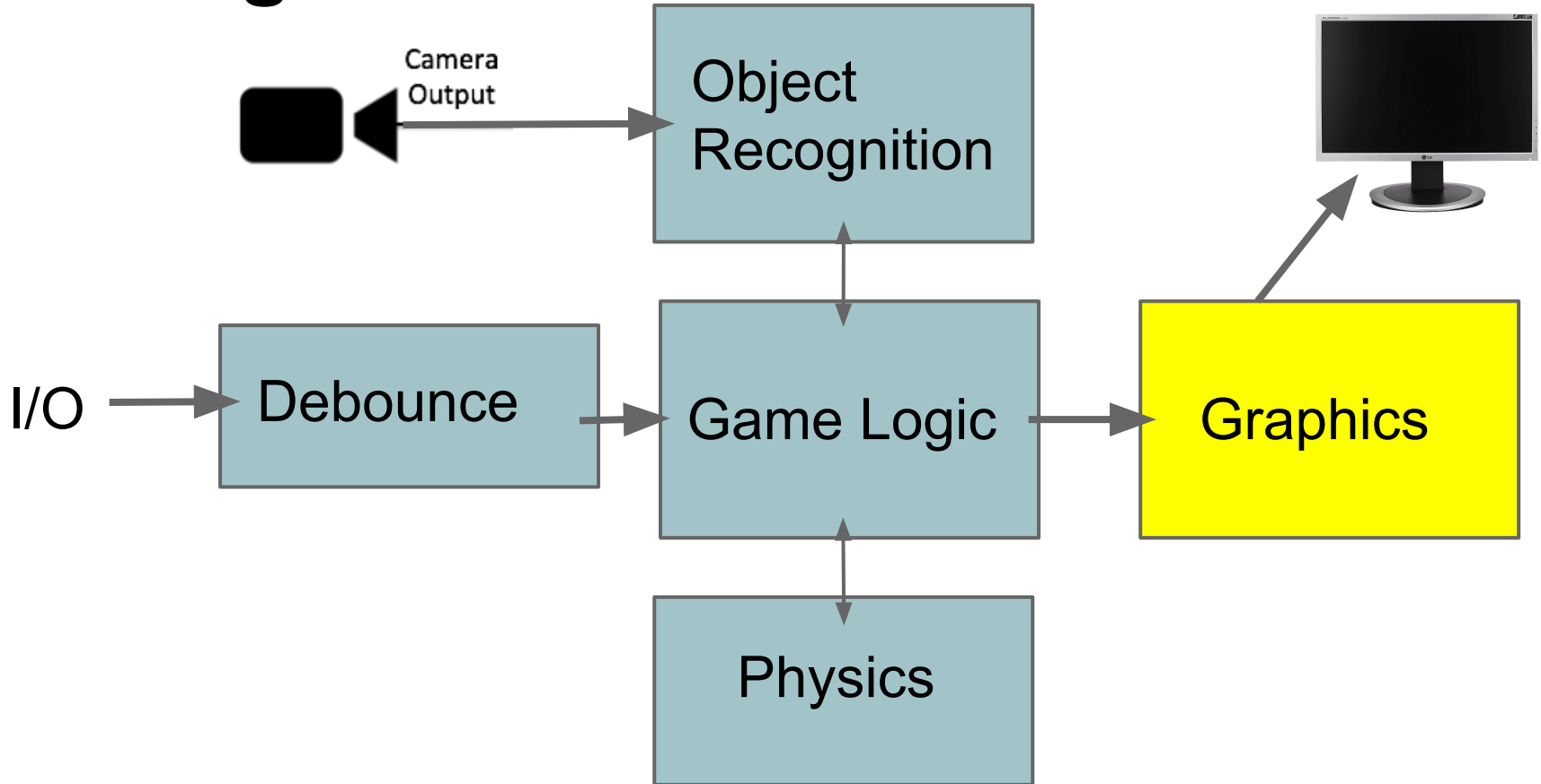
Design: Physics Engine



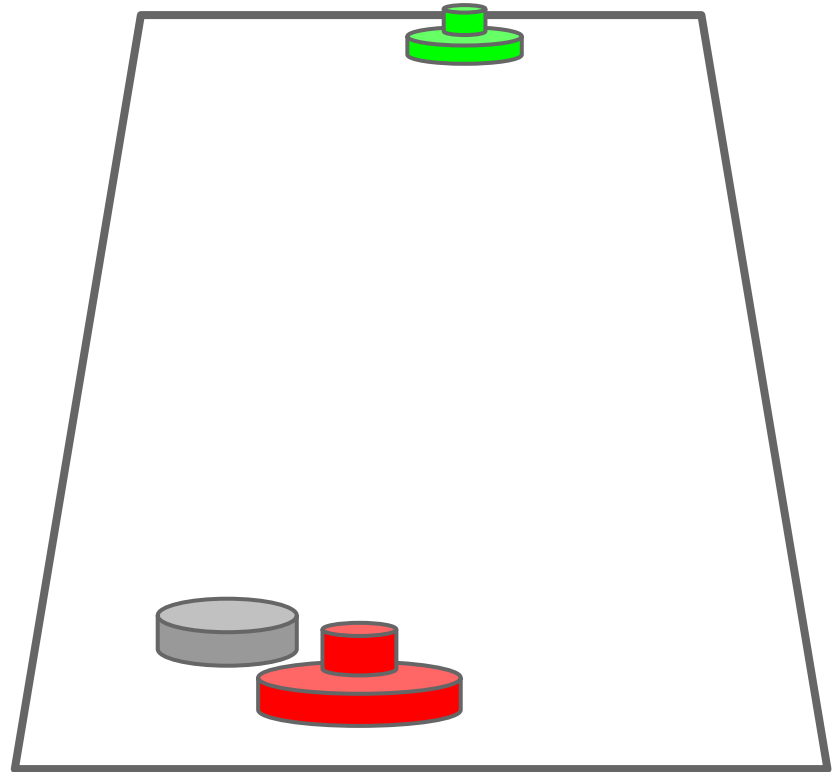
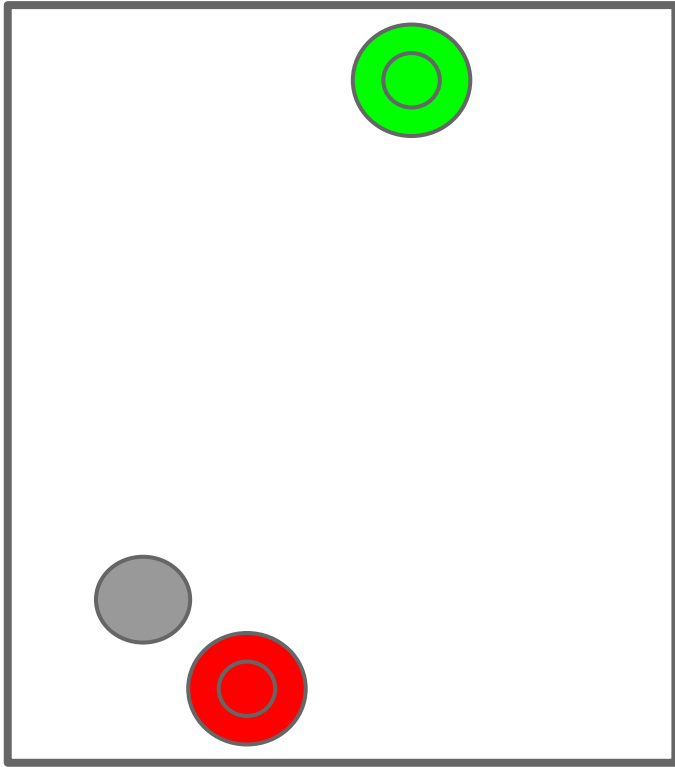
Design: Overall



Design: Overall



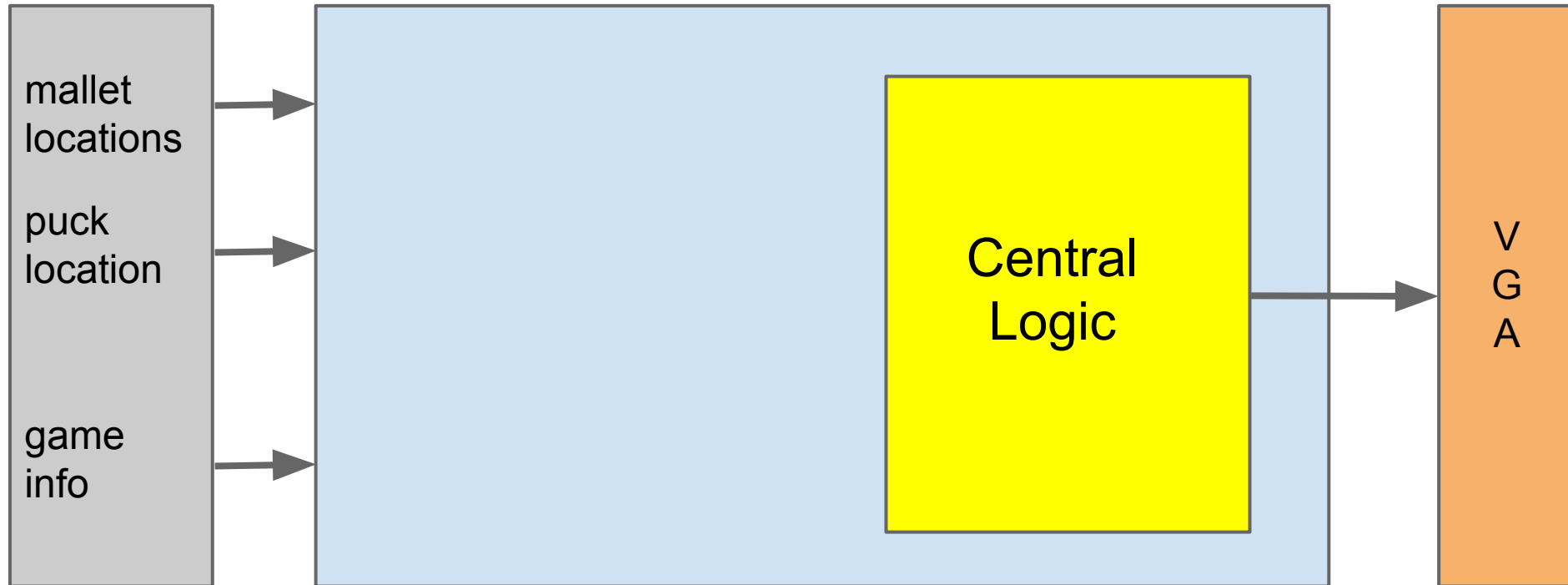
Design: Graphics



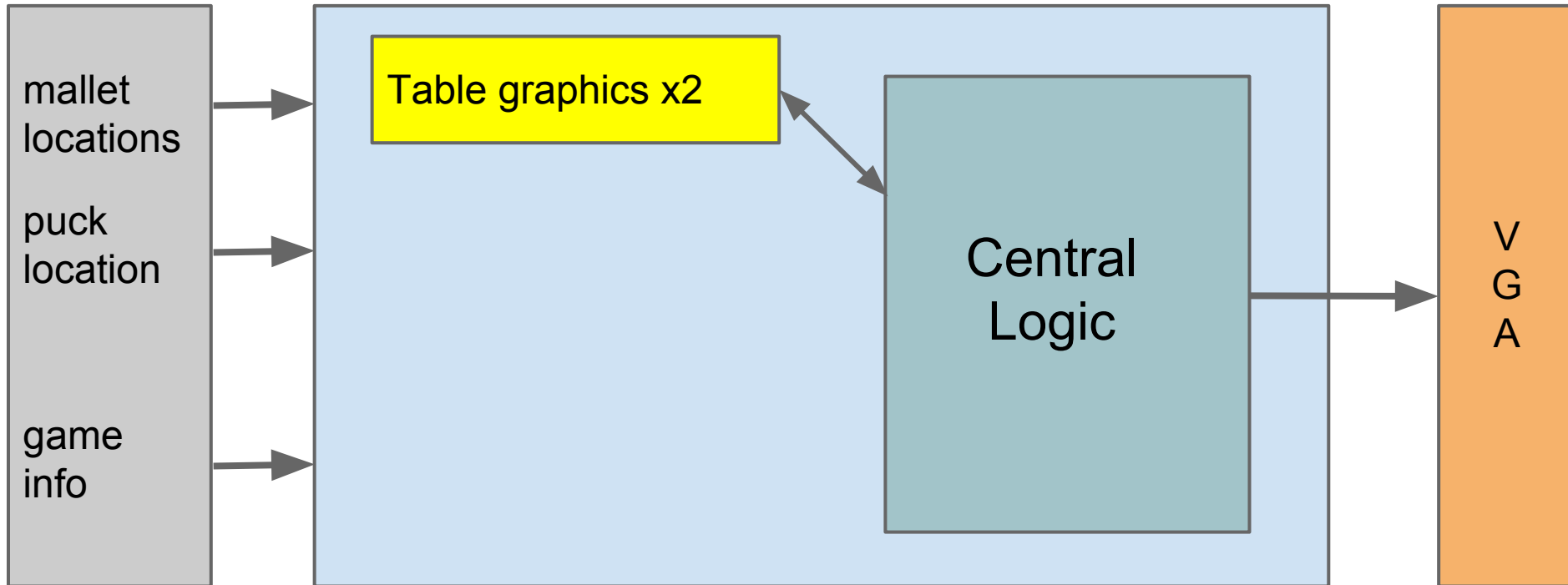
Design: Graphics



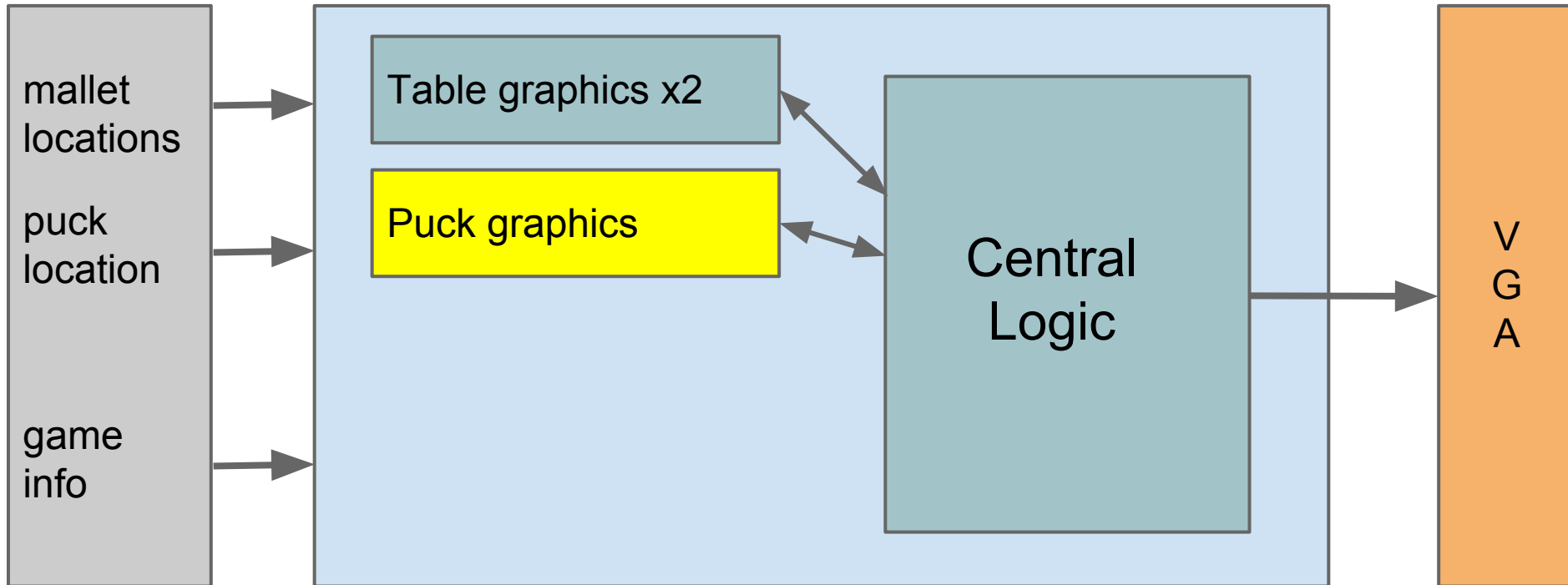
Design: Graphics



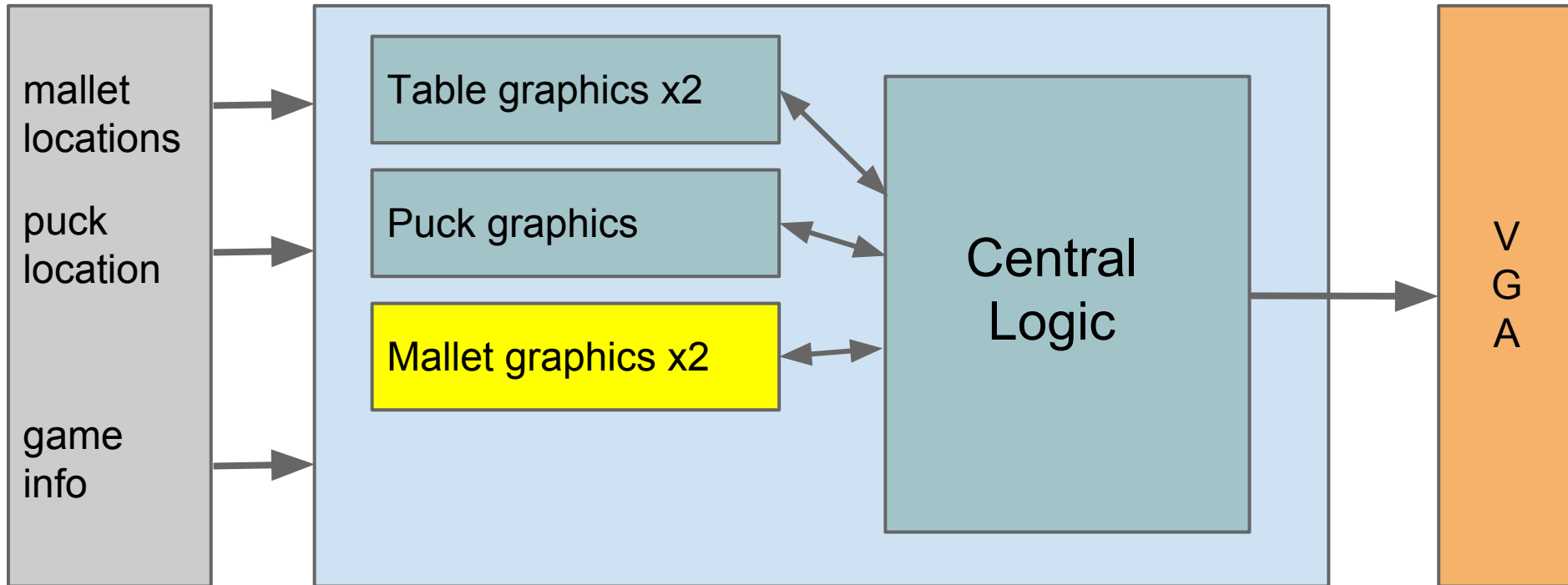
Design: Graphics



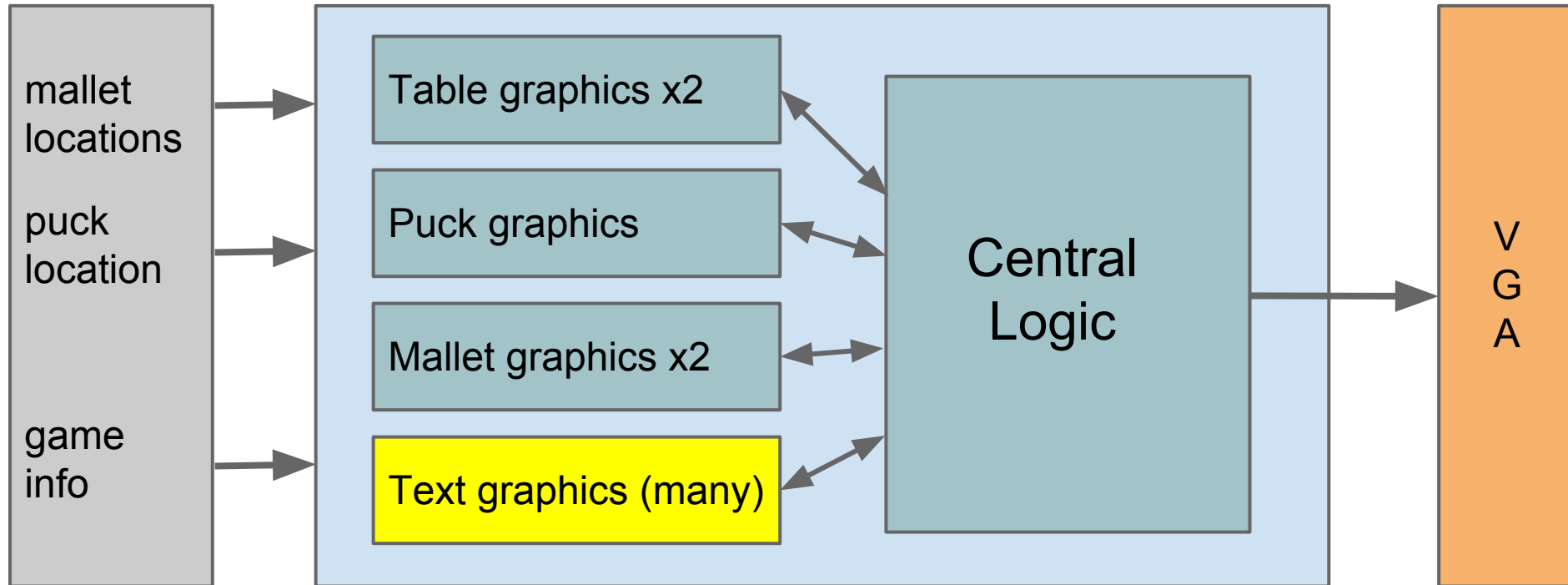
Design: Graphics



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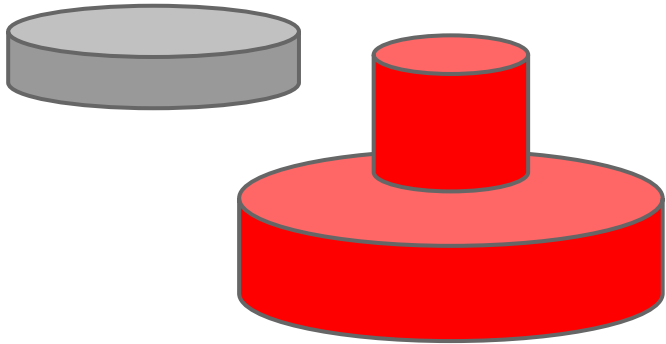


Design: Graphics

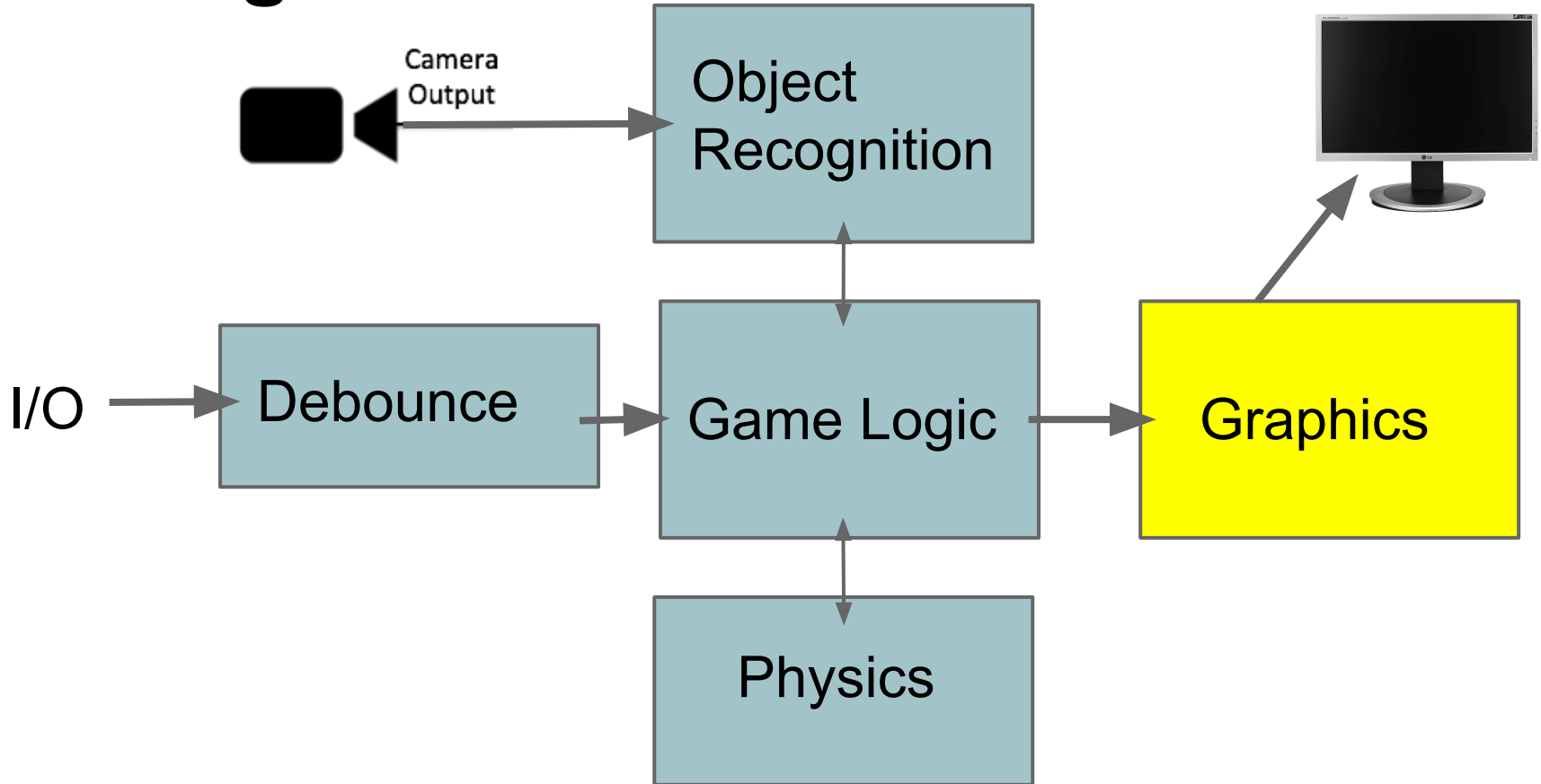


Design: Graphics

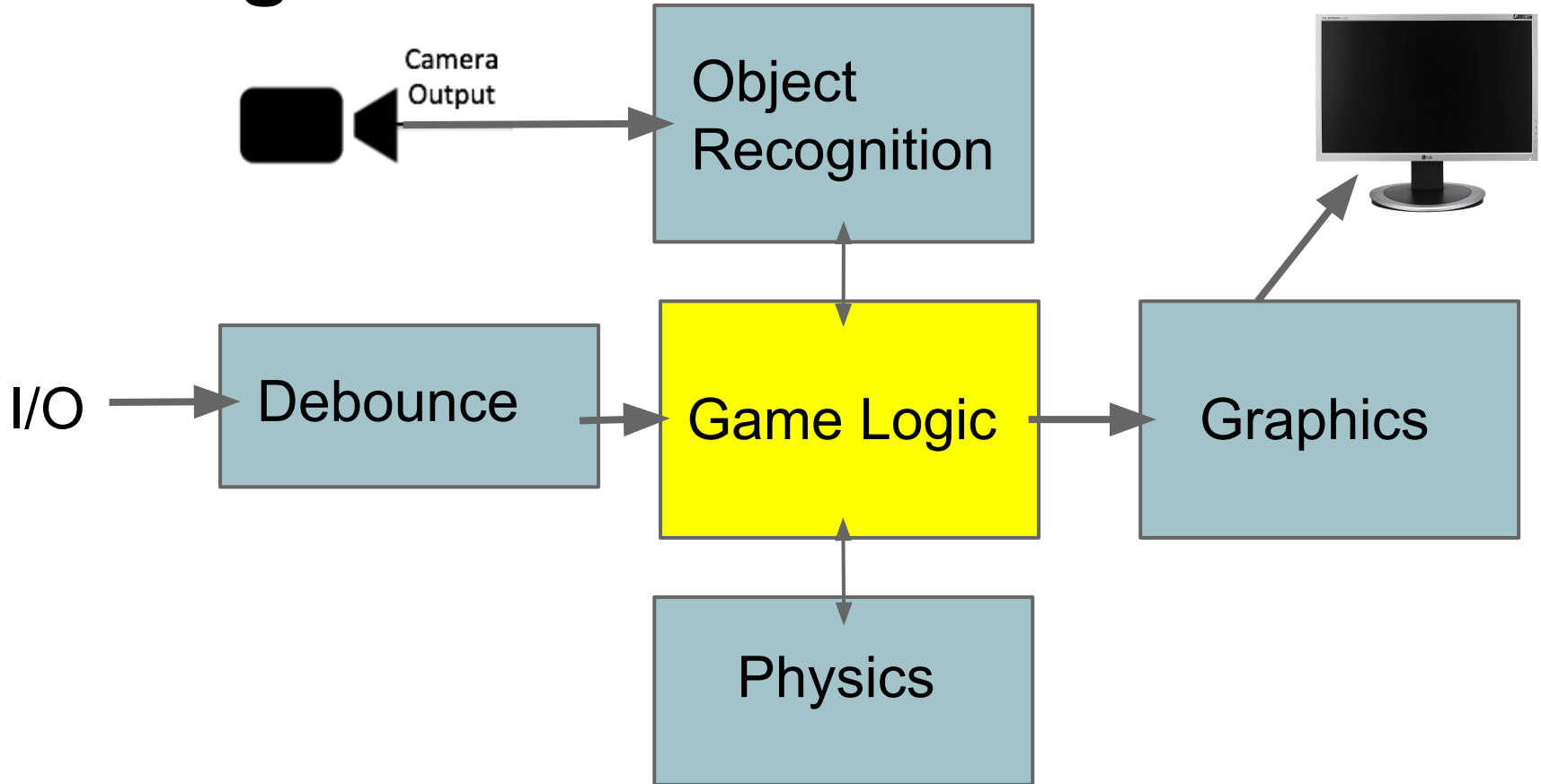
- If time permits:
 - shading?



Design: Overall



Design: Overall



Design: Game Logic

Game Logic FSM

Stored Information:

- Game State
- Mallet & puck positions
- Mallet & puck velocities

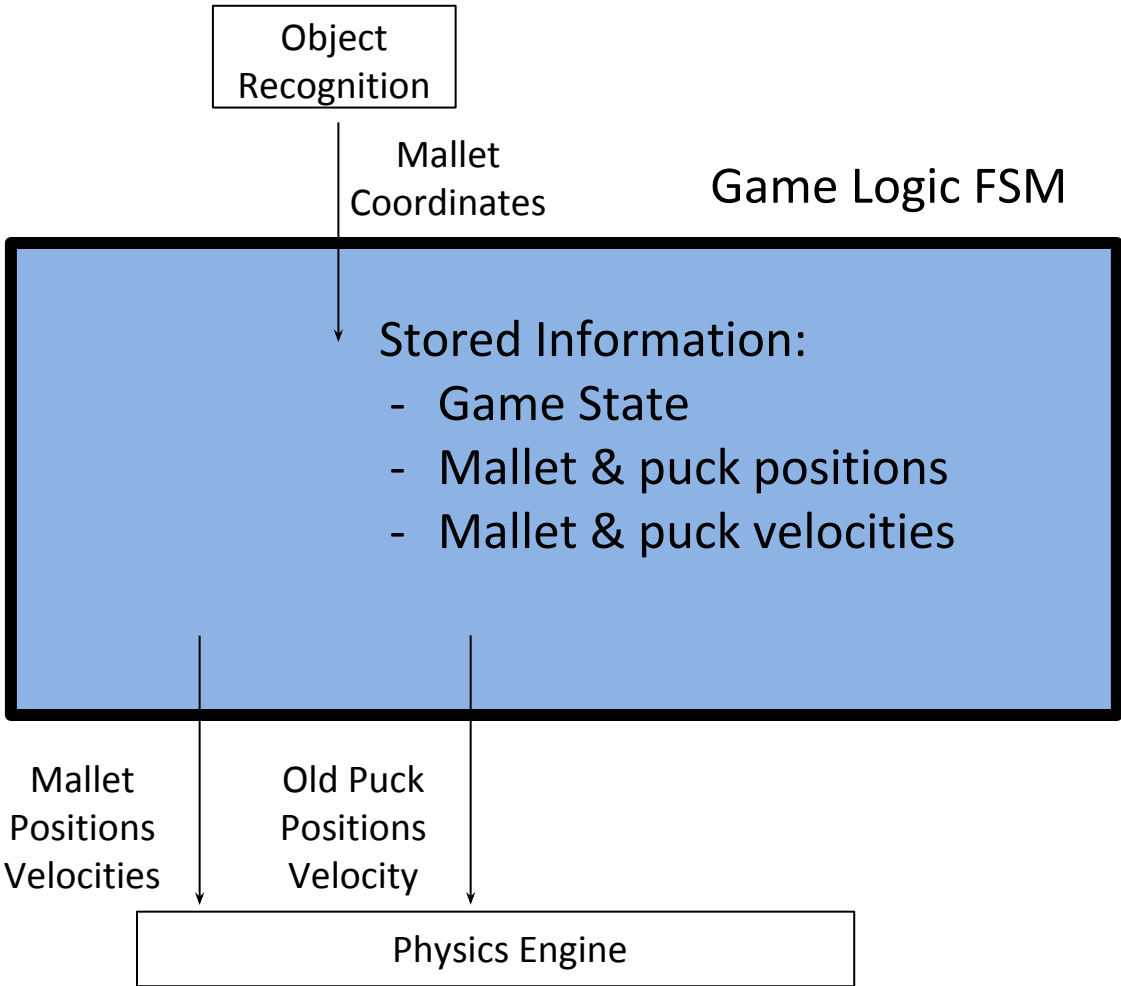
Object
Recognition

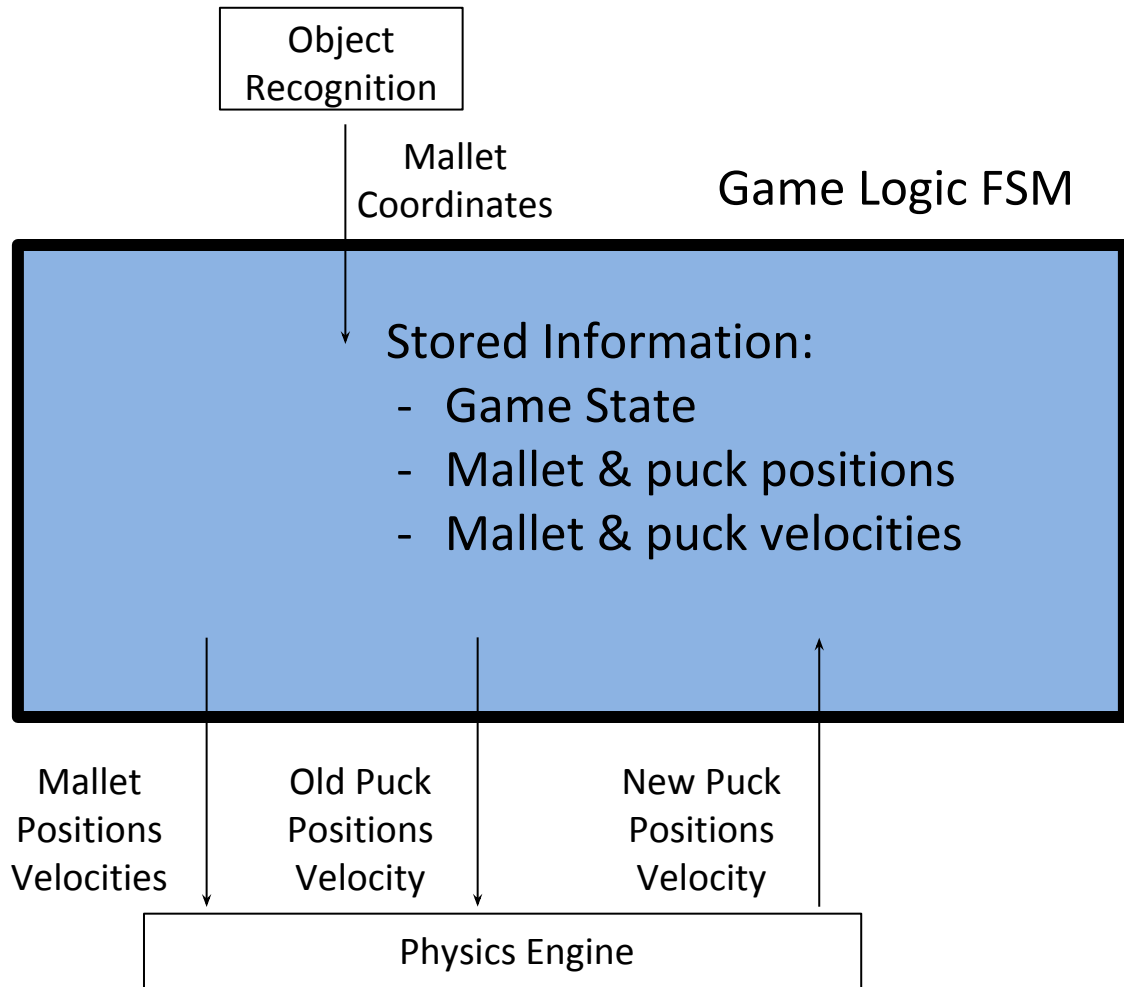
Mallet
Coordinates

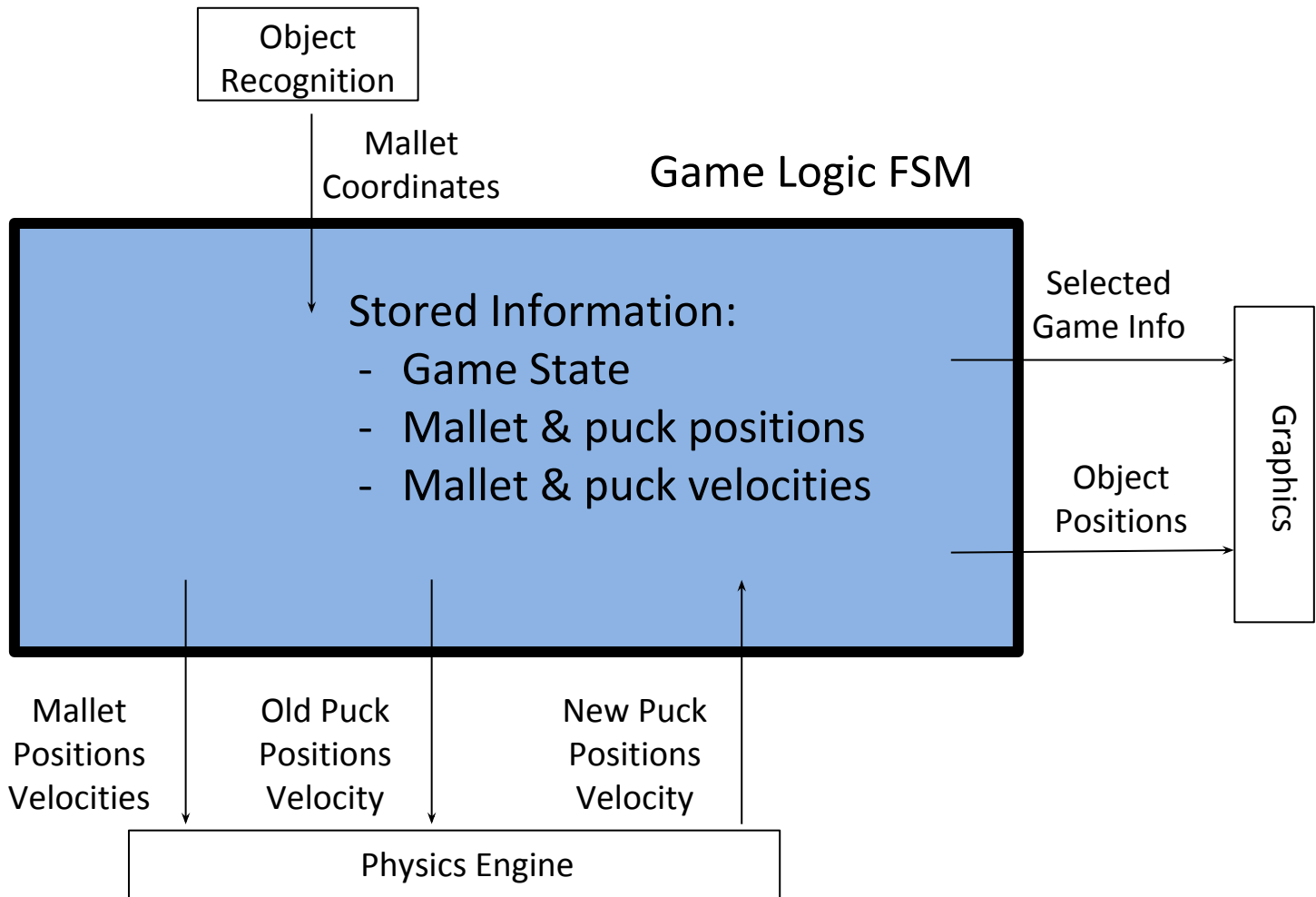
Game Logic FSM

Stored Information:

- Game State
- Mallet & puck positions
- Mallet & puck velocities







Object
Recognition

Mallet
Coordinates

Game Logic FSM

I/O

Resume/
Pause
Restart

Stored Information:

- Game State
- Mallet & puck positions
- Mallet & puck velocities

Selected
Game Info

Object
Positions

Graphics

Mallet
Positions
Velocities

Old Puck
Positions
Velocity

New Puck
Positions
Velocity

Physics Engine

Object
Recognition

Mallet
Coordinates

Game Logic FSM

I/O

Resume/
Pause

Restart

Replay

Stored Information:

- Game State
- Mallet & puck positions
- Mallet & puck velocities

Selected
Game Info

Object
Positions

Graphics

Mallet
Positions
Velocities

Old Puck
Positions
Velocity

New Puck
Positions
Velocity

Physics Engine

Object
Recognition

Mallet
Coordinates

Game Logic FSM

I/O

Resume/
Pause

Restart

Replay

Stored Information:

- Game State
- Mallet & puck positions
- Mallet & puck velocities
- Last N positions

Selected
Game Info

Object
Positions

Graphics

Mallet
Positions
Velocities

Old Puck
Positions
Velocity

New Puck
Positions
Velocity

Physics Engine

Timeline

	10/27	11/3	11/10	11/17	11/24	12/1	12/8
Design							
Object Recognition (Yuqing)							
Physics (Abe)							
Graphics (Alex)							
Game Logic							
Integration							
Testing, Debugging							