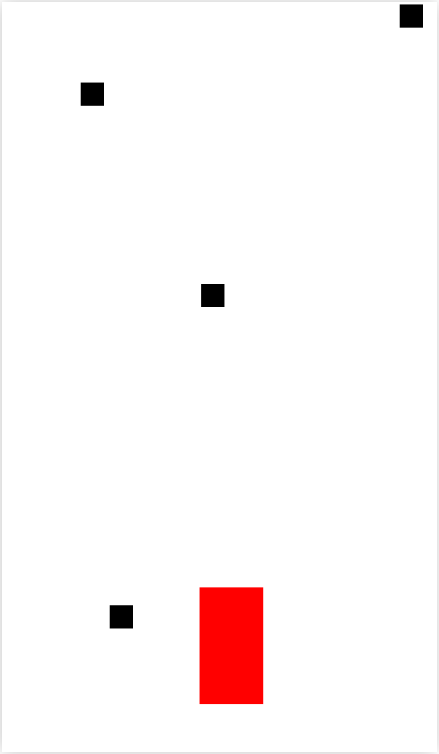
# PROJECT #6

## The Problem

This week we'll be implementing a basic version of "Asteroids". The idea is pretty simple. You have a spaceship that you can drag around the screen and if you get hit by an asteroid, you die. The asteroids will fall from the top of the screen and should be removed from the superview when they hit the boundary. The spaceship must stay in the confines of the view but is not affected by gravity. Once an asteroid collides with your ship, the game is over.

## Challenge Problems

1. The game will start as soon as the app loads up. Let's add the option to start the game so that the user is ready.
2. What's a good arcade game without the score! Perhaps we should give the user a score based on how many asteroids he has dodged.
3. We can increase the difficulty of the game based on how quickly new asteroids spawn on the top of the screen. Give the user some options for game difficulty before they begin.
4. Our spaceship is currently pretty useless. All he can do is dodge asteroids, what if we had the ability to shoot them? We can add a tap gesture recognizer to shoot a laser from the spaceship and if it collides with an asteroid they will annihilate each other.



## Reference

All the concepts we talked about in lecture will pertain to this project. That means timers, gesture recognizers and UIKit Dynamics are all part of this. As a side note, if we were really to implement a game, we should build this using something like SpriteKit, but this is a good learning experience.

- Lecture 6 source code
- NSTimer, UIKit Dynamics, Gesture Recognizers
- arc4random() for random positions with the asteroids
- The Swift Programming Language (especially working with classes)