Md Abedin, Holden Higgins **Final Project Updated Prototype** 6/11/17

Period 10 Mr. Konstantinovich

**Summary:**

We’ll be making a replica of the puzzle game Osmos. The game consists of many cells called Motes in a bounded playing area. Motes can absorb each other by touching, where bigger Motes absorb smaller Motes. The player can move by expelling smaller Motes behind it, which causes it to lose some mass. The objective of the single player mode is to become the biggest Mote.

**Features Prioritized by Importance:**

* Smooth movement by clicking in the direction you want to expel Motes in
* Good collision detection for Motes and boundaries
* Smooth absorption of Motes

**Detailed Description:**

The player moves by shooting out small Motes behind it, and the motion follows the laws of conservation of momentum. When Motes touch, the bigger Mote gains mass at the same rate that the smaller Mote loses mass. Motes can bounce off the boundaries according to the laws of physics. For the main game mode, the player will be spawned in a room with many Motes and it has to absorb them and move strategically to become the biggest Mote in the room and avoid losing all of its mass from movement and touching bigger Motes.

**Roadmap:**

5/31- Make class files and get graphics. Make constant speed movement using the mouse.

6/3- Make acceleration/deceleration, bouncing off walls, and spawn other motes

6/6- Add sprites, have working absorption mechanism, make smooth display

6/9- Have motes shoot out behind the player, make menus

6/12- Have a zoom feature, polish rest of the game

**Work Distribution:**

We plan to work on the code and graphics evenly. We will specialize in different parts of the game like movement and interactions.