Team members: Mitchell Xanders, Juan Vasquez

Project title: Marble Championship Edition: DX

Date: 3/4/2015

Play rules and mechanics
1. *How does the game start (e.g., number of lives, score, time remaining, etc.)?*
   The game starts with the marble rendered in a spot on a randomly generated map. The player starts with a score of 0 and with 3 lives. There is no time limit, however the player is rewarded based on how quickly they complete the level.
2. *How does the player win or lose?*
   The player wins when they are able to guide the marble to the safe zone without running out of lives. They lose when they run out of lives before completing the level. Ultimately there is no real end to the game, just a high score.
3. *How the player scores points?*
   The player scores points by completing each level in certain amounts of time. Power ups are also means of adding to the player's score.
4. *How the player receives rewards?*
   Power up sprites are randomly rendered throughout each map. When the marble collides with these power ups, different bonuses are added.
5. *When the game is over does the player score start from the score of the last game or resets?*
   If the player loses all lives, the game is over and the score is reset.
6. *Do lives carry over between games or reset, if applicable.*
   Between games, lives are reset. However, players can pick up life power ups to add more lives to their stock.

Level design
1. *What objects are in the game world?*
   The objects are obstacles, power ups, the marble, the end zone, and the Heads Up Display (HUD). There are four power ups: the white clock resets the timer for the level, the black speedometer speeds up the marble's movement; the X multiplies your score by two, and the plus gives the player an extra life.
2. *Where are these objects initially?*
   The obstacles, power ups, and the end zone are randomly placed throughout the map each level. The HUD always renders in the same position, as well as the marble.
3. *Which objects move and how (player input, physics simulation, or AI)?*
   The marble is moved by player input. Everything else stays static.
4. *Which objects are animated graphically?*
   Whenever the marble collides with an obstacle, the marble dies and one life is subtracted. If it is the last life then a Game Over screen appears with a score and a restart button. Whenever it picks up a power up, the power up dies. When the marble reaches the end zone, the marble dies and respawns at the beginning of the next level.

5. *What are you using for the background, a solid color or a graphic; if a graphic, will it be tiled or monolithic.*
   We will use a solid color for the background.

Audio-visual design

1. *Where are you getting non-animated graphics, if drawn by the program, how; if a file, are you creating yourself or downloading and if so, give the website.*
   We will be downloading sprites for the game from pixabay.com.
2. *Where are you getting the animated graphics?*
   a. *If you plan to reuse the ones in the start game, which ones?*
      There are none in the start game.
   b. *If you plan to create yourself, which ones?*
      We don't plan on creating our own.
   c. *If you are downloading them, which ones and from where (give the website)?*
      We did not use any animated graphics.
3. *How do you plan to use these graphics? For instance, the lunar lander has four different graphics for the excursion module, floating, left, right, and up.*
   The graphics will be unchanging for all objects.
4. *Where are you getting the audio assets?*
   a. *If you plan to create yourself, which ones?*
      We do not plan on creating our own.
   b. *If you are downloading them, which ones and from where (give the website)?*
      We are getting audio assets from soundbible.com.
5. *How do you plan to use the audio, i.e., which sounds are theme music and which ones are effects?*
   We will use audio assets when the player fails a level and when the marble collides with obstacles or power ups. We will have background music on a continuous loop as well.

Interaction design

1. *What is the player input? WASD, mouse, etc.*
   The player will navigate the marble using directional keys and will navigate menus with the mouse.
2. *What are the feedback systems (e.g., score, lives, health, difficulty, position, velocity, etc.), in other words, how does the player know the state of the game?*
   In the HUD, the game will display score, lives, time, and number of blocks in the level (each level the block count increases by 1). The time or score counter will be affected if the marble collides with the appropriate power up.