## **Art 3001 Final Project – "Energize"**

For my final project, I wanted to take my Exercise 5 that focused on transformation and build upon it to complete my conceptual idea. I love meeting new people and getting to know their personality type, as asking whether they are an introvert or extrovert has become a common ice breaker question. I would say that I am mainly an introvert, but I also found I have extroverted qualities as well. While I had already developed games based off of introvert and extrovert traits, I also wanted to develop an interactive experience for ambiverts as well.

I added the ambivert game utilizing the matter.js library. For this game, I wanted to combine the visual elements from the introvert and extrovert games since ambiverts have a balance of introverted and extroverted traits. After looking at some matter.js examples, I thought it would be fun to use a slingshot mechanic since that is something I wouldn't have been able to do easily in p5.js. I also wanted to incorporate the changing gravity to make it more interesting for the player visually, much like how the particles in the previous game change based on user interactions. My idea was that the player would be able to change their state between being introverted and extroverted, which was accomplished by having the slingshot rock change between a circle and a square.

After figuring out the initial mechanic to base my game around, I further developed my idea by adding two targets that were a circle and a square. Depending on what shape your slingshot rock was, you would have to hit the corresponding target. The slingshot rock would change randomly between a circle and a square. If you hit the wrong target or missed, then your energy would deplete. Similar to the other games, if you ran out of energy then the game would end.

From the comments and suggestions in class, I also added an "About" page that gave more information on introverts, extroverts, and ambiverts. I wanted to still incorporate user interaction for this, so I used p5.js and modified the code I had written earlier so that facts would appear as the user presses the pulsing circles or squares. It was a little challenge to figure out how to make my code reusable without having to rewrite all of it, as I was splitting the p5.js canvas between the introvert and extrovert view. Ultimately, I had to rewrite my "PowerUp" class but was able to keep the other classes I had created relatively unchanged.

Overall, I am happy with how my final project turned out. A few difficulties I had was understanding the matter.js library, as it was more complex than p5.js and the documentation for it was limited. If I had more time and knowledge, I would want to be able to develop these games to be mobile friendly. I would also want to improve the responsiveness of the website on different browsers and screens, as utilizing p5.js and matter.js made it harder to make it more responsive. I ended up learning a lot from this project and realized how many creative javascript libraries there are.