

What our group sought out to create was a basic simulation of the human circulatory system. The idea stemmed from the interest taken in being able to travel through an interactive system that works involuntarily.

The project includes a basic circulatory system with the main arteries and veins, providing blood flow between the heart, brain, leg, and arm regions. To accurately demonstrate the breakdown of the makeup of blood, the particles that circulate are realistic models of red blood cells, white blood cells (lymphocytes), platelets, and neutrophils.

For further interaction and exploration of the human body and circulatory system, the model can be scaled up. By doing so it allows for more cells to be added, and even the creation of a variety of other cells. A more complex system of arteries and capillaries could be added to improve the complexity, providing a more detailed illustration.

This project can be used to make a great impact in medical and educational uses. If needed to show an example of the effects of blood clots, this system can simulate the blood path adjusting to that and other diseases. The cell structures and proportions can also be adjusted in size and shape to reflect a sickle cell and other circulatory diseases. The expansion of this project can provide great insight to the human body.

**Jackie:** made the skybox design, designed the platelet model

**Hyein:** drew the original sketch for the vein system, created the white blood cell,

**Alex:** created the vein system, designed the red blood cell model, contributed to the finished working model

**Randy:** coding for the physics behind the objects, music, voice overs, label various parts of the circulatory system