

Our project aims to create a two-dimensional physics toy that simulates various elements and their interactions. Individual particles will be represented by pixels on a fixed-size grid, and elements will be distinguished by colors. The user will be given a simple UI with which they can choose elements to place in the grid. In addition, the user will be able to save and load projects that they have previously worked on.

When finished, the project will have around 20 to 30 different elements that the user can play with. Each will have unique properties, such as being a solid, liquid, gas, or powder, as well as temperature, i.e. lava will be hot and ice will be cold. Certain elements will also have special interactions with one another, e.g. fire can burn wood, water can put out fire and generate steam from the heat, etc.