

Sprint 3 Features Implemented

We were not able to implement all the features we listed in our project plan for the third sprint, specifically, we were not able to complete the GUI components of our rays, and accurate scoring, and have moved this to the fourth sprint. We have included an updated project plan.

Implemented Features:

- Advanced Ray Detection
 - We were able to develop our shootRay function to be able to handle deflection whenever a ray hits an atom. We implemented a helper function, deflectRay, which is called whenever a ray hits a field of an atom. Whenever the ray hits the field of an atom, the ray's direction changes. The function calls shootRay recursively which goes through the process until an atom is hit or the ray exits the board.
 - For each bounce that occurs, the direction of the deflection is informed. Just like before, it is informed if the ray hits an atom directly and the coordinates of where the ray exits.
- Track Experimenter's Score
 - We created a Player Class to track and increment the user's score as the game goes on over time. A guess button was added to allow the user to select specific hexagons on the board to guess where the atoms are located. The user can submit their guess after they selected 4 spots, where the user's score is shown and the atoms are revealed. Currently the score doesn't account for correct atom guesses yet, although we have designed our code, to easily accommodate for this for our next sprint.