

The GUI makes use of the Model View Controller design pattern to manage displaying of and user interactions with the Sword and Shield game. In this case the Model is the SSGame class. The Controller is split between the three classes PMouseListener, BMouseListener and KeyController. View is also split between three classes, View, BoardView and PiecesView. PMouseListener is a MouseListener that manages to clicks on PiecesView components, Whereas BMouseListener manages clicks on the BoardView. KeyController is a very simple class as there is only one place where the keyboard is used, so KeyController only manages using buttons to move a selected piece. BoardView displays the board and deals with any animations there. PiecesView components are used for displaying each players available pieces and each player's cemetery. The printing of individual pieces is handled by static methods in the ImgResources class, as is the loading of image files for each player's face. View is the JFrame that stores and manages the other View components.

Animations in the PiecesView components work using an int that indicates which stage of animation the component is in -1 is no animation. Animations 1-4 cover the transition from selecting a piece to selecting which rotation of that piece to create. Animation 5 is the transition from creating or unselecting a piece. BoardView animations are managed by the animationSetp variable, all board animations are 50 seconds long the first frame of the animation is animationSetp 50, the second is 49, the third is 48 and so on. For the removal animation pieces are scaled down once more for each of the 50 steps. The move animation finds the direction the piece should move in and shifts it in that direction by 50 minus the animationSetp.