

When the game is first pulled up, you will see the entire Monopoly board and most of the buttons for the game's functionality. The only button that will be enabled at this point is the button to add the 1st player to the game. When that button is clicked, all of player 1's information will be populated in the players box, the Dog token will be added to the starting position on the board, and the button will go away. The button to add player 2 will then appear and be enabled. After the button to add player 2 is clicked, all of player 2's information will be populated in the players box, the Battleship token will be added to the starting position on the board and the button will go away. At this point, the Start Game button will appear since there are 2 players in the game. The Start Game button does not appear until after 2 players have been added so that a game cannot be started with less than 2 players. To continue adding player 3 and player 4, simply click on the add player buttons like you did for player 1 and player 2. Player 3's token is the Car and Player 4's token is the Hat. Once the Start Game button has been clicked, it will go away and player 1's box will be highlighted. The Roll Dice button will now be enabled. Once the player clicks the Roll Dice button, the dice on the board will update to reflect the roll and the players token will move to the appropriate square on the board. Depending on what square the player lands on, they will either have the choice to buy the property and the Buy button will be enabled, or to auction the property and the Auction button will be enabled. If the player lands on a chance or community chest square, the card is automatically drawn for the player and the players token position, money, or Get Out Of Jail Free Card amount will reflect what was on the card that the player drew. When the player is done with their turn they will click the Finish Turn button and the next players box will become highlighted.

For testing purposes we have added a few command line arguments that enable testing of specific features. The first is "monopolies" which when added will divide all the monopolies between all players. This mode is used when testing buying/selling houses and mortgaging. Buying houses can be tested by selecting properties that a player owns (referenced in bottom left) and clicking the buy houses button, at this point the green box above these properties should change to 1. At this point Sell houses can be tested by selecting properties that have a house (green box with a number bigger than zero) and then clicking the sell houses button, the properties should reflect the reduced number of houses. Buying houses deducts money, selling houses deposits money equal to half the house cost. The "doubles" argument will ensure that players will roll only doubles. This is used when testing Jail properties since players can reliably be sent to jail, after rolling 3 times a message should be printed to the dialog box saying the player is now jailed. The next turn the Pay bail button and roll dice button will be enabled, clicking either of these will result in the player being unjailed (message in dialog box). A command line argument of a two digit integer denotes how long a game will last in seconds, used for testing game ending (all buttons will be disabled) and winner (highest net worth including properties) selection. The argument, "broke" sets all players money to \$0 so that bankruptcy protocols can be tested; with this whenever a player's account would go negative a message should pop up in the dialog box prompting the user to mortgage properties and sell houses.