**Lawn Mower Simulator 2018 Test Plan**

|  |  |  |
| --- | --- | --- |
| **Action** | **Expected Result** | **Check** |
| Lawn Map Constructor | Creates a Lawn Map with the correct variables set by the default constructor | ✔ |
| Lawn Map Constructor With Params | Creates a Lawn Map with the correct variables specified in the constructor | ✔ |
| Game Window Constructor | Creates a Game Window with a MowerGame and LawnMap | ✔ |
| GameWindow Update | Sets all of the tiles to the correct image (Observe throughout gameplay) | ✔ |
| GameWindow updateNumMove | Updates the GUI to display the correct number of moves (Observe throughout gameplay) | ✔ |
| GameWindow updateScore | Updates the GUI to display the correct score (Observe throughout gameplay) | ✔ |
| GameWindow stopGame | Updates the GUI to display the player ranking when the game ends and adds a button to go to the next level if there are more levels (Observe throughout gameplay) | ✔ |
| GameWindow MowerListener keyPressed | Pressing the arrow keys makes the mower move in the correct direction (Observe throughout gameplay) | ✔ |
| Mower Game Constructor | Creates a Mower Game with level set to 0 and current set to a new LawnMap | ✔ |
| Mower Game Constructor With Params | Creates a Mower Game with level set to 1 and current set to the LawnMap in the constructor | ✔ |
| Mower Game Move | Moves the mower, changes the tiles, updates the scores/num moves (observe throughout gameplay) | ✔ |
| Mower Start Constructor | Creates a Mower Start which initializes a linked list of LawnMaps as well as creates a MenuWindow | ✔ |
| Menu Window Constructor | Creates a Menu Window which creates the GUI | ✔ |
| Menu Window Level Select (Level 4) | Opens level 4 | ✔ |
| Menu Window Level Select noninteger input | Error message saying “Enter an integer level” | ✔ |
| Menu Window Level Select (Level 348) | Error message saying “Enter level in the range 1-4” | ✔ |
| Menu Window Level Creator noninteger number of rows | Error message saying “Enter an integer number of rows” | ✔ |
| Menu Window  Level Creator  enter 0 as number of row | Error message saying “Number of rows out of bounds” | ✔ |
| Menu Window Level Creator noninteger number of cols | Error message saying “Enter an integer number of cols” | ✔ |
| Menu Window  Level Creator  enter 0 as number of col | Error message saying “Number of cols out of bounds” | ✔ |
| Menu Window Level Creator noninteger startX | Error message saying “Enter an integer starting x coordinate” | ✔ |
| Menu Window  Level Creator  enter -1 as startX | Error message saying “Starting x coordinate out of bounds” | ✔ |
| Menu Window Level Creator noninteger startY | Error message saying “Enter an integer starting y coordinate” | ✔ |
| Menu Window  Level Creator  enter -1 as startY | Error message saying “Starting y coordinate out of bounds” | ✔ |
| Menu Window Level Creator noninteger endX | Error message saying “Enter an integer ending x coordinate” | ✔ |
| Menu Window  Level Creator  enter -1 as endX | Error message saying “Ending x coordinate out of bounds” | ✔ |
| Menu Window Level Creator noninteger endY | Error message saying “Enter an integer endng y coordinate” | ✔ |
| Menu Window  Level Creator  enter -1 as endY | Error message saying “Ending y coordinate out of bounds” | ✔ |
| Menu Window Level Creator same start and end positions | Error message saying “Starting and ending position the same” | ✔  ✔ |
| Menu Window  Level Creator  noninteger boulder 1 x coordinate | b1X set to -1 | ✔ |
| Menu Window Level Creator integer boulder 1 x coordinate as -1 | Error message saying “Boulder 1 x coordinate out of bounds” | ✔ |
| Menu Window  Level Creator  noninteger boulder 1 y coordinate | b1Y set to -1 | ✔ |
| Menu Window Level Creator integer boulder 1 y coordinate as -1 | Error message saying “Boulder 1 y coordinate out of bounds” | ✔ |
| Menu Window Level Creator  boulder 1 in start position | Error message saying “Boulder 1 in start position” | ✔ |
| Menu Window  Level Creator  boulder 1 in end position | Error message saying “Boulder 1 in end position” | ✔ |
| \*repeated same tests for boulders 2 and 3 | \*repeated same tests for boulders 2 and 3 | ✔ |
| Menu Window Level Creator  Constructed map with following data: 3 rows, 5 cols, start pos (0, 0), end pos (2, 4), boulder 1 nonintegral coordinates, boulder 2 at (1, 1), boulder 3 at (1, 1) | Expect to see a 3 by 5 LawnMap with mower at top left, flag at bottom right, and one boulder at (1, 1) | ✔ |