ECE 411
Andrew Greenberg
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Team 5 Test Plan

Bucanan Howard, Daniyil Kashkan, Demetrius Van Sickle, Mohammed Alreshoud, and Wallace McKenzie

Part 1

Unit Tests

- Test power supply provides 5V
- Test ESP32-S3 powers on
- Test WiFi module powers up
- Test that all matrix displays powerup
- Test that when buttons are pressed it pulls the input to GND
- On/Off switch test

Verification Tests

- Test SELECT button starts new game on powerup
- Test SELECT button selects letter under cursor
- Test LEFT button moves the cursor left
- Test RIGHT button moves the cursor right
- Test DELETE button deletes letter under cursor in letter edit mode
- Test the WiFi module that it connects and disconnects
- Test the LED module on the matrix lights up
- Test the game if it detects winning or losing

Validation Tests

- Test if SELECT button switches to letter select mode when pressed in letter edit mode
- Test if SELECT button switches to letter edit mode when pressed in letter edit mode
- Test GUESS button submits word for verification from either letter edit or letter select mode
- Test DELETE button only functions when in letter edit mode
- Test EXIT button quits the game from any mode
- Test the game ends when all attempts have been used the display will show you the correct solution
- Test the system accurately tracks the number of attempts
- Test the system if it automatically advances to the next round after a win or a loss