LEDs that indicate letters based on nCr of 2 combinations our of 7 possibilities (plus 7 individual selection possibilities). (A = 1, N=2 and 3)

At the end of every turn these LEDs indicate the player's remaining life

Hold this button to scroll through letter choices

Whiteboard Material (shut up, I'm not cheating)

LIFE

1 2 3 4 5 6 7

SELECT LETTER

CONFIRM

CORRECT LETTERS

1 2 3 4 5
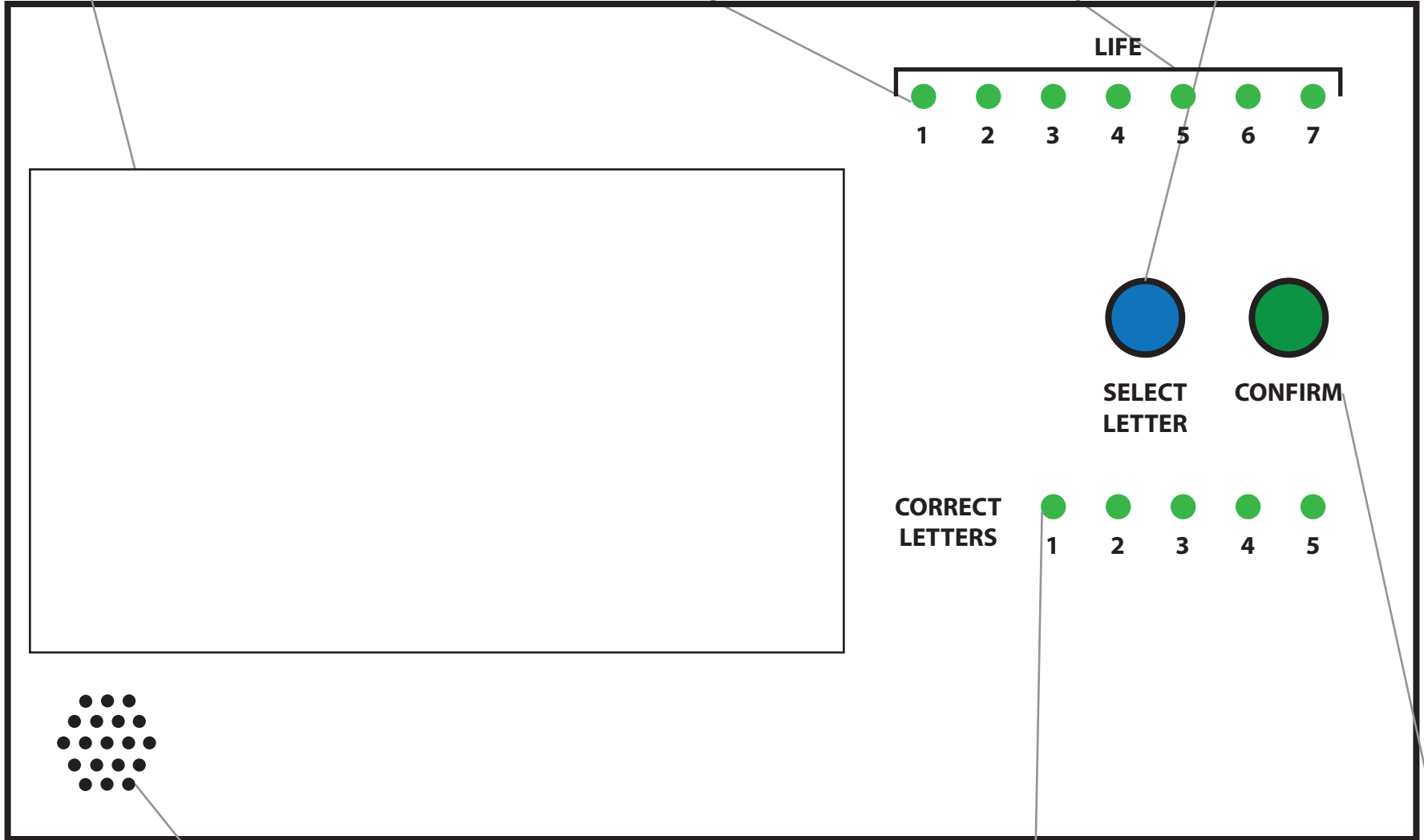
LEDs illuminate to indicate which letter positions have been guessed correctly

Confirm your letter choice

Piezo Buzzer

Ben Mandeberg, Digital Hangman:

Conveying Letters:
The "language" for indicating which letter the player has selected will be based off the combination between 7 LEDs (of which there are 21 possible outcomes) plus 7 individual possible selections (each individual LED).

Choosing and Guessing Letters:
There will be one button for choosing a letter, and another for confirming this choice. The choose button may be held to scroll through the possible letter choices (lighting up different LEDs that correspond to the combinations that represent the letters of the alphabet), and the confirm button may then be pressed to confirm this choice (and guess the letter against the randomly selected word string that is selected at the beginning of each new game).

Getting Feedback:
There will be five LEDs representing each of the letters in the word the player is attempting to guess. An LED will light up for every correct letter that the player guesses (if the player guesses letter 3 correctly, the third LED will light up and stay lit).

There will be a piezo buzzer that will provide audio feedback about: when a player makes a correct letter choice, when a player makes an incorrect letter choice, when a player wins the game, and when a player loses the game.

The seven LEDs in the alphabet array will also act as a life meter, flashing to indicate the player's remaining life at the end of every turn (after they guess and receive feedback, and before they are able to guess again).

The player will not be penalized for guessing any letter twice. If they have already guessed the letter and it is correct, the piezo will play the success song, and the LED in the correct letters array will flash briefly. If the letter is incorrect, the piezo will play the failure song, but the player's life will not be detracted from. This is to compensate for the veritable lack of feedback the game gives the player.

There will also be a small piece of whiteboard material where the player may take notes if they so desire. This is not crucial to the gameplay, so if the player thinks it's cheating to use the whiteboard, they should turn their opinionated noses away from the whiteboard and focus on the fancy lights and buttons.

Parts Needed:
12 green LEDs
1 piezo buzzer
2 buttons, one green, one blue
4 magnets for securing the lid onto the board
1 Whiteboard material, whiteboard pen
1 USB cable and USB power supply for power