1895 Bop It

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Components:

1 on/off slide switch for power

1 LCD screen to display pass/fail and score

1 speaker to output different audible commands for different inputs

3 separate inputs:

1 push button

1 slide potentiometer

1 microphone (above certain sound threshold)

Software/function outline:

Once powered on, the program will loop and display a message on the LCD screen prompting the user to start the game by pressing the push button.

Once in the game state, we will randomly generate a number to select 1 of 3 distinct actions.

Once an action is selected, a corresponding auditory command will be played.

(we're going to attempt to mount an external sd card in order to play a sound file through the speaker), else display different frequencies

We will then wait a predetermined amount of time (constantly decreasing, base value \* decreasing decimal) until an input is detected.

If no input is detected, or input is incorrect, display fail, show score, and end game.

If input is correct and in time, increase level, decrease decimal time, and repeat back to generating a new random number.

If input is correct, in time and current level is 99, end game, congratulate, and display score.

Chart, box and whisker chart

Description automatically generated