

Saaif And Bate Lab 2 Part A

Friday, October 1, 2021 11:48 AM

Start → Game → Score

Start Phase:

- Display Instructions
- Wait for SS1 Toggle
 - If SS1 Toggled
 - 3 Second Countdown
 - If 3 seconds has passed
 - Start Game Phase
 - Else
 - wait
- Else
 - Wait

High Level Background

Initialization:

- SS1
- LED
- Input Output Registers
- Assign bumpers to be a given color on the LED

Global:

- Score =0;
- Array of colors
- Current chosen color

Game:

- For 5 rounds
 - Choose a random color
 - Store Given Color
 - Display said color on the terminal
 - Start 3 second countdown
 - For Each Bumper
 - If Bumper Pressed
 - Turn on Corresponding LED
 - If Player hits submit pushbutton
 - Break
 - If 3 seconds elapsed
 - Raise Flag
 - Break
 - Check color of RGB - LED
 - If Flag was raised
 - score+=1;
 - Bi Color LED Turned Red
 - If color on board matches stored color
 - Score +=5;
 - Bi Color LED Turned Green
 - Wait 1 sec
 - If color on board does not match stored color
 - score -=3;
 - Bi Color LED Turned Red
 - Bi Color LED Turned Off

Score

- Display Score
- Transition to START Phase