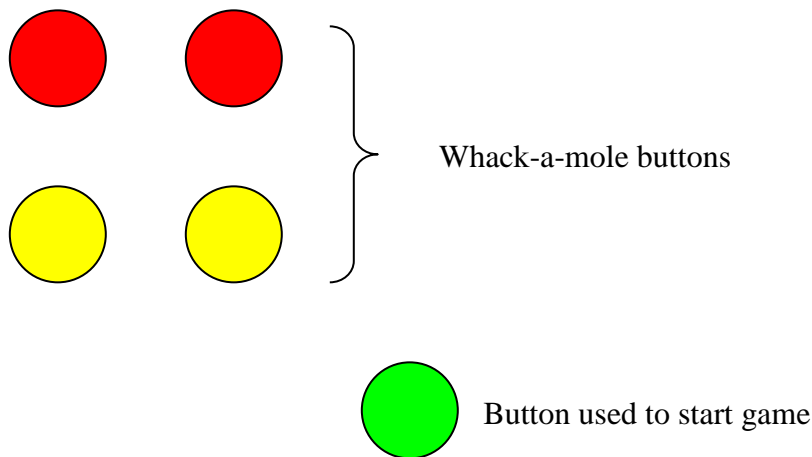


Chapter 13 Whack-a-Mole

Design a Whack-a-Mole game using only 4 lights. The game is to react to the light by pushing that particular button before the light turns off. Construct the game so that the time between lights is pseudo-random (you pick various numbers) and the next light to turn on is pseudo-random (again, you pick). Count the steps (light turn-ons) and stop at 30. If the person playing the game is successful 10 of the 30 times, blink all the lights a number of times. The steps are repeated each time the game is played. The values for buttons and time delays are to be **stored in a table and re-used**.

Use a button not part of the game to start the game.

The layout is as follows:



- Option A Automatically rotate through 3 different sets of data tables.
- Option B Create a teach mode using a separate button to teach the game a sequence of steps which can then be played.
- Option C Add a table of results including whether the player hit the light while the light was on and how long the response was delayed from when the light first turned on. Results for each hit are to be saved sequentially in a table. Evaluate the results using various statistical methods.
- Option D Expand the layout to 6 or 8 buttons and add a table of results including whether the player hit the light while the light was on and how long the response was delayed from when the light first turned on. Results for each hit are to be saved sequentially in a table. Evaluate the results using various statistical methods. Evaluate the difference in response for a 4 button and 6 or 8 button game.