Whack A Mole Game Coursework

Project Introduction

I set out to make a whack a mole game using only components given to me with my arduino and adding functionality to the code that was already provided.

Features

I have implemented all the core features that were included in the coursework brief, including the flashing LEDs to signal the end of a game and also two player mode. I have also added three additional functionalities - using a button to change the difficult, outputting a sound every time there is a successful button push and using a servo to display which player is winning.

How I implemented it

I used two buttons and 3 LEDs for each player's 'mole' and one large white LED to show whether a button has been successfully pressed or not. I have used a third button to change the difficulty, with 3 different modes depending on how many times the button is pressed. I have used the piezo element to output a sound every time a button is pushed successfully. I connected a servo to the breadboard and I have used the different angles to display which player is winning. I have included a circuit diagram and a picture of the arduino and breadboard below: