Arduino Lab Challenge
Spring 2017
Variable speed Music Player

Idea:
We have designed a variable speed music player. It plays notes C, D, E, F, G, A, B. The circuit consists of a Buzzer that plays the notes continuously. There is a potentiometer that decides the pitch of the notes being played. It has an LED whose intensity changes as the pitch of Buzzer or the Potentiometer voltage varies. Lastly we have a Push Button which regulates the speed at which notes are being played.

Working:
When the arduino code is uploaded to the red board, Buzzer starts playing notes. As you rotate the potentiometer, the LED changes its intensity and the buzzer changes its pitch. If you long press the push button or press it at the completion of one cycle of notes, the buzzer starts playing at a faster speed. As you keep the button pressed, the buzzer plays at faster and faster speed.

Sensors used:
1. Potentiometer (Input)
2. Piezo Buzzer (Output)
3. Push Button (Input)
4. LED (Output)