



```
int redLed = 4;  
  
int pushBut1 = 8;  
  
int piezo = 2;  
  
int pushBut2 = 5;  
  
  
int pitchVal = 100;  
  
  
int lastButtonState1 = LOW;  
  
  
void setup()  
{  
  pinMode(redLed, OUTPUT);  
  pinMode(pushBut1, INPUT);
```

```
pinMode(piezo, OUTPUT);
pinMode(pushBut2, INPUT);
}

void loop()
{
  // --- Button 1: Pitch Control ---
  int buttonState1 = digitalRead(pushBut1);

  if (buttonState1 == HIGH && lastButtonState1 == LOW) {
    pitchVal += 300;

    if (pitchVal >= 4000) {
      pitchVal = 300;
    }

    delay(100); // debounce
  }

  lastButtonState1 = buttonState1;

  // --- Button 2: Sound ON/OFF ---
  int buttonState2 = digitalRead(pushBut2);
  if (buttonState2 == HIGH) {
    tone(piezo, pitchVal);
    digitalWrite(redLed, HIGH);
  } else {
    noTone(piezo);
    digitalWrite(redLed, LOW);
  }
}
```