Debugging Fun Mural1

Scenario: Joy wrote the following code for her Mural Project.

She wants to see:
- allOn() if both buttons are pushed
- blink() if button1 is pushed and button2 is not pushed
- blinkFast() if button1 is not pushed and button2 is pushed
- allOff() if neither is pushed

Help her debug her code:

```
loop() {
  int sensorVal1 = digitalRead(button1);
  int sensorVal2 = digitalRead(button2);

  //both buttons pushed
  if(sensorVal2 == HIGH && sensorVal1 == HIGH) {
     allOn();
  }
  //button1 pushed and button2 not pushed
  else if(sensorVal2 == HIGH && sensorVal1 == LOW) {
     blink();
  }
  //button1 not pushed and button2 pushed
  else if(sensorVal2 == LOW && sensorVal1 == HIGH) {
    blinkFast();
  }
  //neither button pushed
  else {
    allOff();
  }
}
```

1. **Predict:** Looking at the code snippet above, what do you think the behavior might be?

2. **Test:** Discuss with another group or test out the code. What does the code actually do?

3. **Identify the bug:** Why do you think the code behaves this way instead of as intended?

4. **Revise:** How might you fix the code? Write your revised code or edit the code snippet at the top to fix the bug.

5. **Retest:** Test your solution and revise again if necessary.