

Debugging Fun Sensor1

Scenario: Maxine wrote the following code for her Human Sensor Project. She wants each possible sensor value to call one of the four light pattern functions:

```
loop() {  
  sensorValue = analogRead(sensor);  
  if (sensorValue > 900) {  
    lightPattern1();  
  }  
  if (sensorValue > 750 && sensorValue < 900) {  
    lightPattern2();  
  }  
  if (sensorValue > 500 && sensorValue < 750) {  
    lightPattern3();  
  }  
  if (sensorValue < 500)  
  {  
    lightPattern4();  
  }  
}
```

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.