

## 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.