

Credit Name: CSE 2920 - CSE Project C

Assignment: SmartPhidgetEvents

How has your program changed from planning to coding to now? Please Explain

```
public class SmartPhidgetEvents {  
  
    public static void main(String[] args) throws Exception {  
  
        //Create  
        HumiditySensor humiditySensor = new HumiditySensor();  
        TemperatureSensor temperatureSensor = new TemperatureSensor();  
  
        //Open  
        humiditySensor.open(1000);  
        temperatureSensor.open(1000);  
    }  
}
```

Humidity and temperature sensors are set up and connected.

```
//Humidity Event  
humiditySensor.addHumidityChangeListener(new HumiditySensorHumidityChangeListener() {  
    public void onHumidityChange(HumiditySensorHumidityChangeEvent e) {  
        System.out.println("Humidity: " + e.getHumidity() + "%RH");  
    }  
});
```

An addHumidityChangeListener is used in a way identical to the addStateChangeListener. Now any only when there is a change to the humidity will the humidity print out.

```
//Temperature Event  
temperatureSensor.addTemperatureChangeListener(new TemperatureSensorTemperatureChangeListener() {  
    public void onTemperatureChange(TemperatureSensorTemperatureChangeEvent e) {  
        if (e.getTemperature() < 21)  
        {  
            System.out.println("The room is too cold");  
        }  
        else {  
            System.out.println("Temperature: " + e.getTemperature() + "°C");  
        }  
    }  
});  
  
//Keep program running  
while (true) {  
    Thread.sleep(150);  
}
```

For the temperature event there is a addTemperatureStateListener which waits for changes to the temperature. Within this method, if the temperature ,immediately after a

change is less than 21 then “The room is too cold” is printed. otherwise the the temperature is printed as normal.
This is repeated at a 150ms interval using a while loop.