One Switch Program Storyboard

Let's add a switch so you can choose which light pattern you want to run.

1. Do you think the switch will be an input or output?

2. NAMING SECTION: Declare a variable for your switch named "switch1":

```
int wristband1 = 10;
```


3. SETUP SECTION: In the setup() function, initialize your switch. Since it is input, initialize it to be INPUT instead of OUTPUT:

```
void setup(){
  pinMode(wristband1, OUTPUT);



}
```


4. ACTIVITY SECTION: Program the loop() function to turn the light on if the switch is set to "+" and turn the light off if the switch is set to "-".

```
void loop() {
  int sensorVal = digitalRead(switch1);







}
```


5. Open Arduino and insert your code from steps 2,3, and 4 to make the light respond to the switch. Debug as necessary.
6. In your own words, describe how you used conditionals (if/else) to choose your light pattern:

Let's make the switch choose between 2 different light patterns.

7. Describe what your light pattern will be when the switch is set to "+":

8. Describe what your light pattern will be when the switch is set to "-":

BUILDING BLOCKS SECTION:

9. Write a function for the light pattern when the switch is set to "+." Start by naming your function.

```
void _____ () {




















}
```

10. Write a function for the light pattern when the switch is set to "-." You may look at number 9 and decide what parts of the code should be included here.

```
```

11. ACTIVITY SECTION: Rewrite the loop() function to use the switch to choose between the light pattern functions you wrote in 9 and 10:

```
void loop() {
  int sensorVal = digitalRead(switch1);




}
```

12. Copy parts 9, 10, and 11 into your program, test, and debug.

13. In your own words, describe how you used the light pattern functions in the building block section to help you organize your program: