

Mural Program Storyboard

Let's write the program for the Circuit Playground on your mural piece.

1. NAMING SECTION: Declare the variables for your components. Use descriptive names so you know what is what when you are writing the rest of your program:

```
//Name LEDs
int _____ = _____;

//Name 2 switches/buttons
int _____ = _____;
```

2. SETUP SECTION: In the setup() function, initialize the LEDs and switches you declared in the naming section.

```
void setup() {
  pinMode(_____, _____);
}
}
```

3. Describe your 4 light patterns:

Pattern 1:

Pattern 2:

Pattern 3:

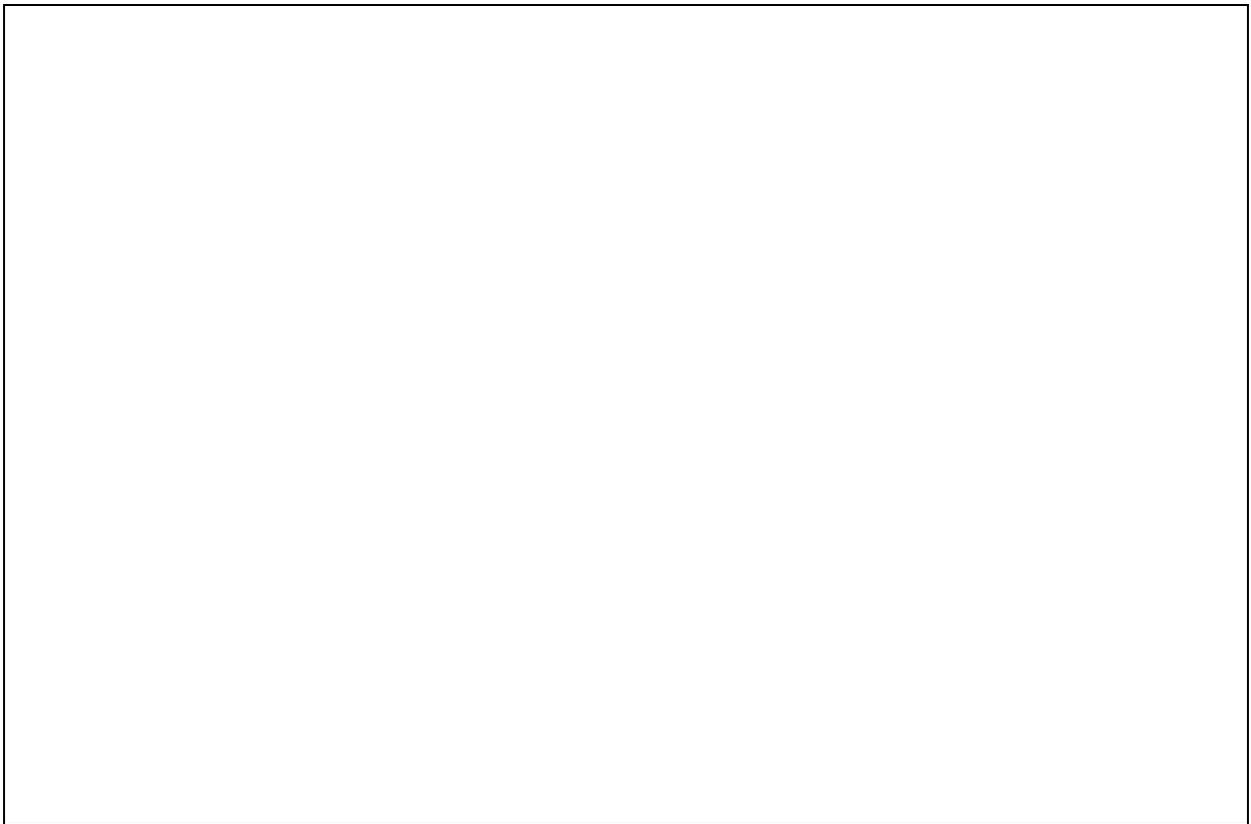
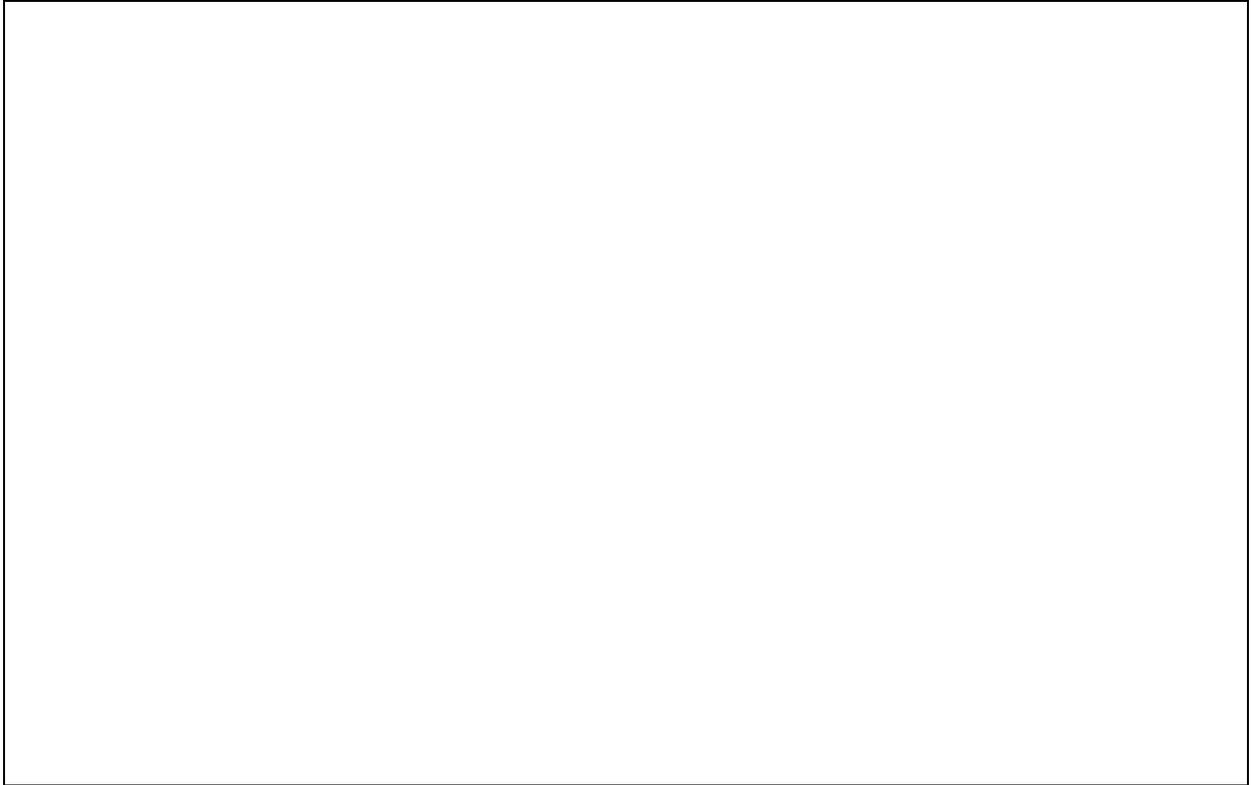
Pattern 4:

BUILDING BLOCKS SECTION:

4. Write the functions for your different light patterns from #3, one in each box:

```
void _____ () {
```

```
}
```



- Set the states of the two switches you named in #1 and setup in #2 to two new variables

```
void loop() {  
    int sensorVal1 = digitalRead(____);  
  
    int sensorVal2 = digitalRead(____);  
}
```

- Describe which pattern will run based on states of sensorVal1 and sensorVal2. Remember: sensorVal1 and sensorVal2 can have the state of HIGH or LOW.

- ACTIVITY SECTION:** Program the loop() function to choose light patterns based on the 2 switches.

```
void loop() {  
    int sensorVal1 = digitalRead(____);  
  
    int sensorVal2 = digitalRead(____);  
  
    if (sensorVal1 == _____ && sensorVal2 == _____) {  
        _____;  
    }  
  
}
```

- Copy your code into your program, test, and debug.
- In your own words, describe how your program chooses which light pattern function to call in the loop() function: