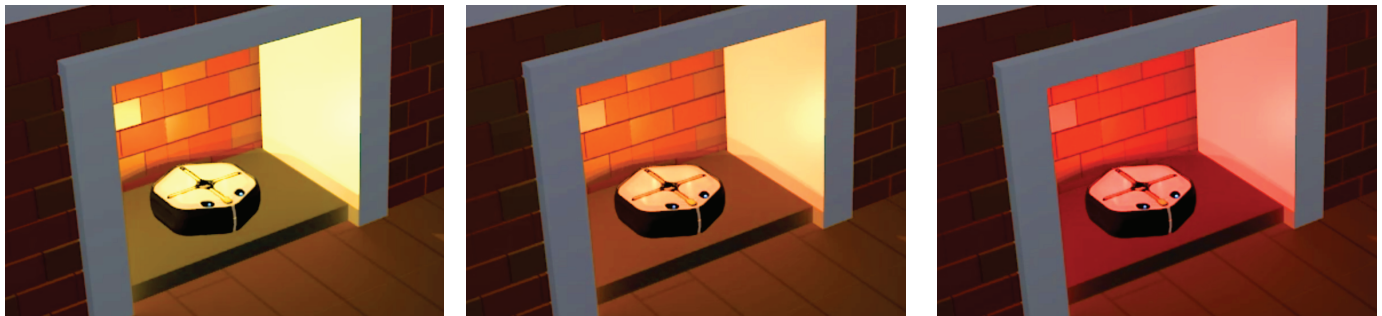


Name: _____

Fireplace Program

Use variables to code Root to glow and flicker different colors like a flame in a fireplace.



1.

2.

3.

While True

The While True Block acts as a “Forever Loop.” The code you place inside will run over and over until you press the Stop Button.

While True

The Set Lights Block in Level 2 uses RGB values make Root’s lights glow.

Yellow

Red: 100; Green: 45; Blue: 0

Orange

Red: 100; Green: 25; Blue: 0

Red

Red: 100; Green: 0; Blue: 0

4.

```

when program started
  while true
    set lights on : red 100 green 45 blue 0 %
    wait 1 s
    set lights on : red 100 green 25 blue 0 %
    wait 1 s
    set lights on : red 100 green 0 blue 0 %
    wait 1 s
  
```

Wait Block

The Wait Block will pause the program before moving to the next line, to make the lights change slower.

5.

```

create number var myNumber with value 0
when program started
  while true
    set var myNumber to 0
    set lights on : red 100 green 45 blue 0 %
    wait 1 s
    set lights on : red 100 green 25 blue 0 %
    wait 1 s
    set lights on : red 100 green 0 blue 0 %
    wait 1 s
  
```

Set Variable Block

The Set Variable Block gives Root a number to remember.

We'll use it here to tell Root how long to wait before change the lights in each loop.

6.

```

create number var myNumber with value 0
when program started
  while true
    set var myNumber to 0
    set lights on : red 100 green 45 blue 0 %
    wait myNumber s
    set lights on : red 100 green 25 blue 0 %
    wait myNumber s
    set lights on : red 100 green 0 blue 0 %
    wait myNumber s
  
```

Number Variable Block

The Number Variable Block will equal whatever you decide it should equal with the Set Variable Block.

7.

```
create number var myNumber with value 0
when program started
while true
  set var myNumber to 0
  set lights on : red 100 green 45 blue 0 %
  wait myNumber s
  set lights on : red 100 green 25 blue 0 %
  wait myNumber s
  set lights on : red 100 green 0 blue 0 %
  wait myNumber s
```

8.

```
create number var myNumber with value 0
when program started
while true
  set var myNumber to random integer from 0 to 100
  set lights on : red 100 green 45 blue 0 %
  wait myNumber s
  set lights on : red 100 green 25 blue 0 %
  wait myNumber s
  set lights on : red 100 green 0 blue 0 %
  wait myNumber s
```

9.

```
create number var myNumber with value 0
when program started
while true
  set var myNumber to random decimal from 0 to 0.75
  set lights on : red 100 green 45 blue 0 %
  wait myNumber s
  set lights on : red 100 green 25 blue 0 %
  wait myNumber s
  set lights on : red 100 green 0 blue 0 %
  wait myNumber s
```

Random Block

The Random Block will generate a random integer or decimal between the two numbers that you place in the block.

Random Decimal

Changing the Random Block to generate a decimal from 0 to .75 will change how long the Wait Blocks will wait before moving to the next light color in each loop.