



Cheese Stick

LED Game

Exploring LED function using cheese stick

Start >



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Brainstorming

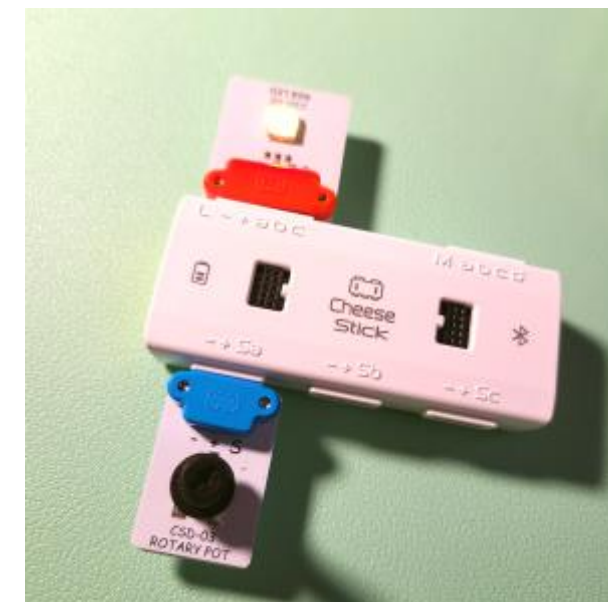
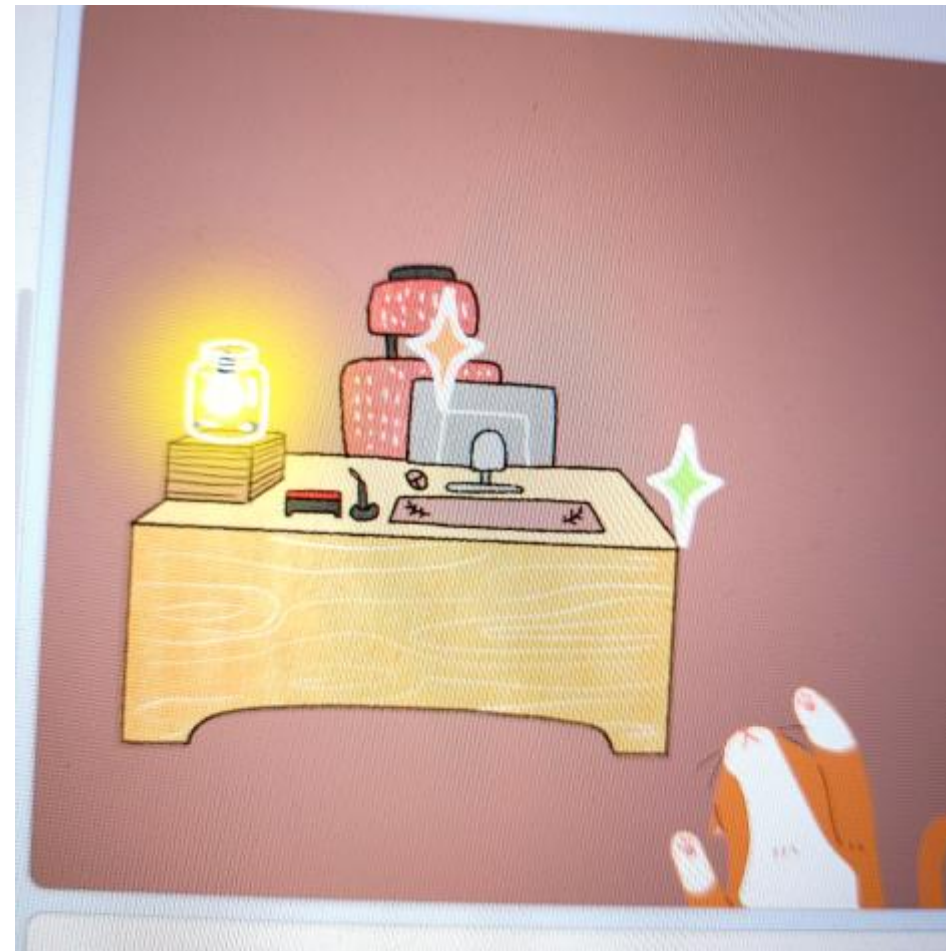
01

Idea

Prompt: create a project which will explore two accessories to the cheese stick

using the rotary and RGB LED

we can create a simple game which works in sync with the color function of the virtual scratch sprites paired w/ the physical LED of the cheese stick device





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Rotary Movement

<- -> movement

02

The sprite / rotary accessory's movement is limited to left/right rotation.

use the value of the rotary input to determine the cat sprite's position in the stage.

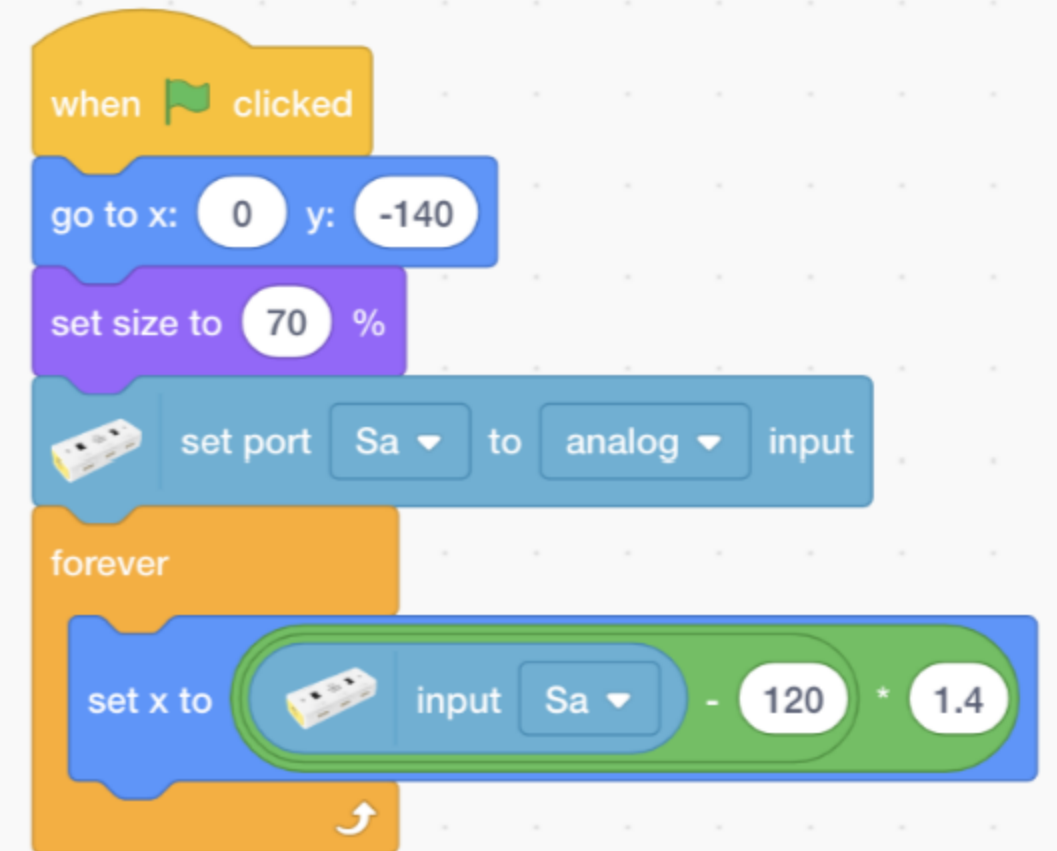
steps

Note that the rotary's input values range from 0 to ~240. The stage's x-coordinates range from approx. -240 to 240.

To allow the cat sprite to move left, we set x to $\text{input Sa} - 120$.

To account for the difference in reach, we multiply the Sa port input by 1.4.

hmm...



```
when green flag clicked
  go to x: 0 y: -140
  set size to 70 %
  set port Sa to analog input
  forever loop
    set x to (input Sa - 120) * 1.4
```

The game will feature 5 color settings

which the player can alternate between by moving the cat to catch the corresponding colored star.



Set the star sprite(s) to go to a random position and y=230 at the start of the program or when touching another sprite.

If the sprite touched is the cat sprite, the star sprite will broadcast a message corresponding to its color.

The message is relayed to the light sprite.

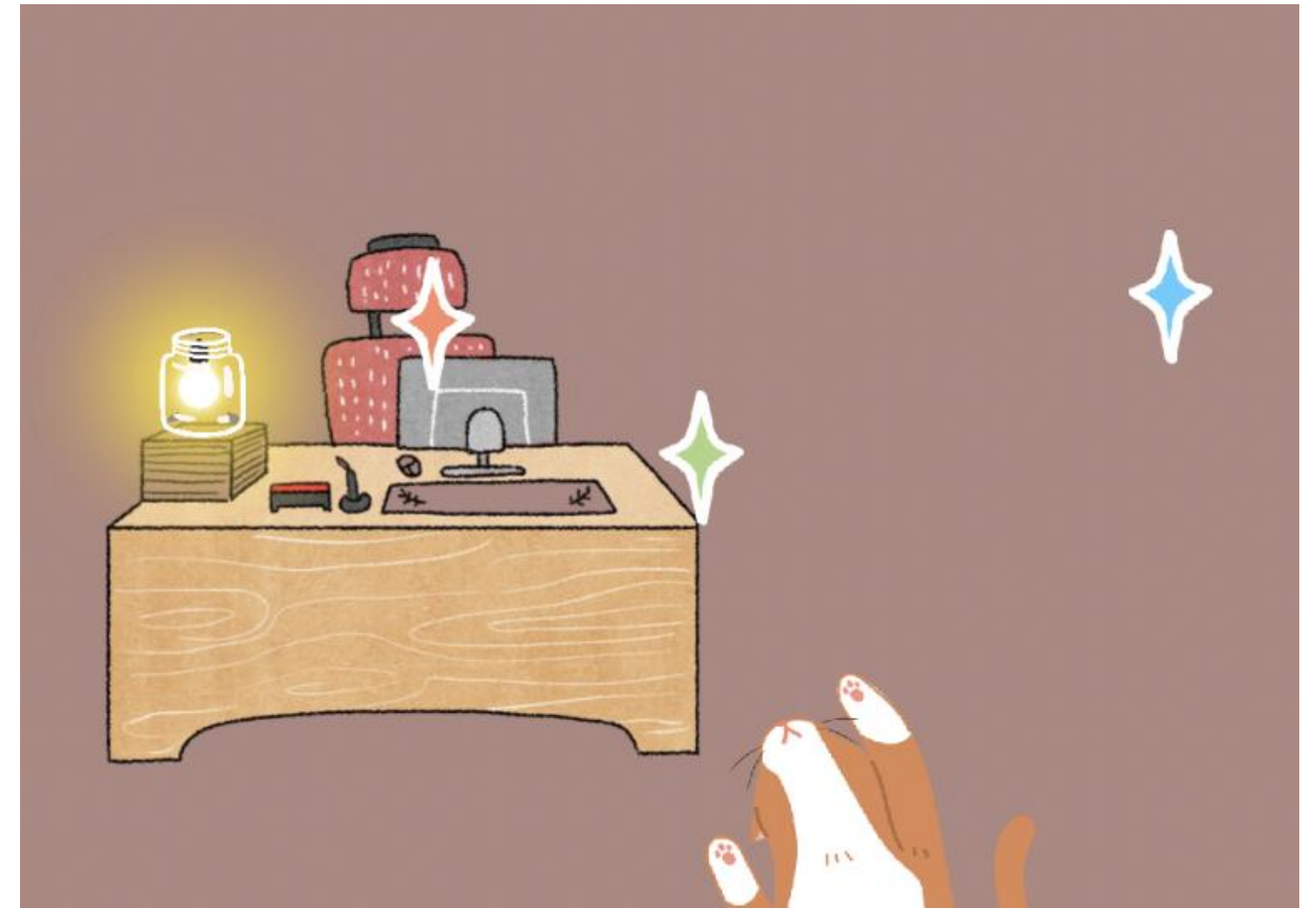
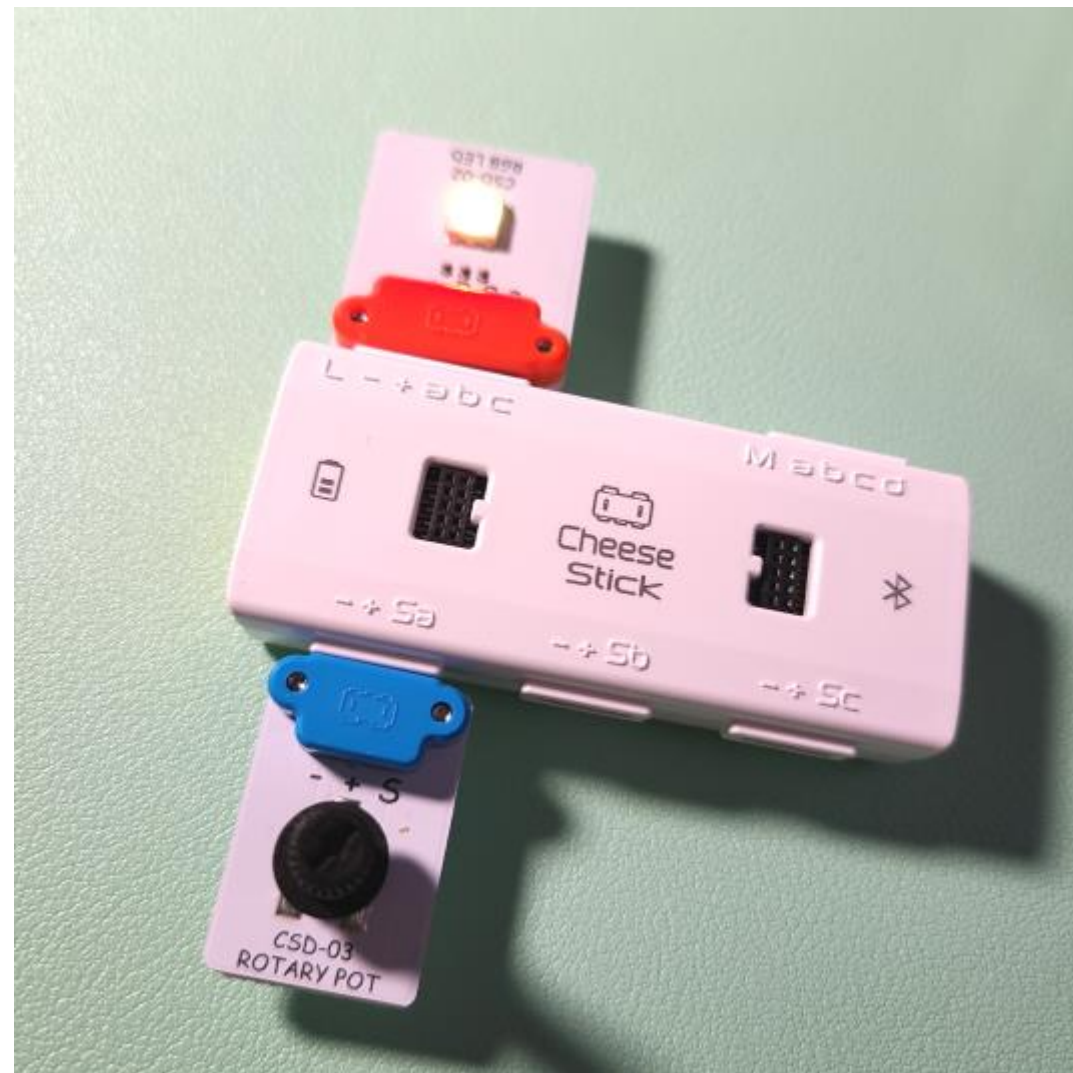
Each of the 5 stars' code is a variation of that pictured to the right.

```
set size to 40 %
go to random position
set y to 230
forever
  change y by -1.7
  if touching green ? or touching
  if touching cat ? then
    broadcast red
  hide
  go to random position
  set y to 230
  show
```



game premise

collect colored stars by moving the cat sprite
with the rotary to change the color of the lamp





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Considerations

03

potential improvements to game

In real life application, colors

are controlled by the RGB scale. Notice that the color blocks for the cheese stick come in both set colors and the RGB control function.

The color blocks available for scratch sprites are limited to color change by a negative/positive value.

Tinker with the operation blocks and conditions to closely mimic the change of colors using RGB (3 stars)

notice the LED/color control settings follows a different system.

