



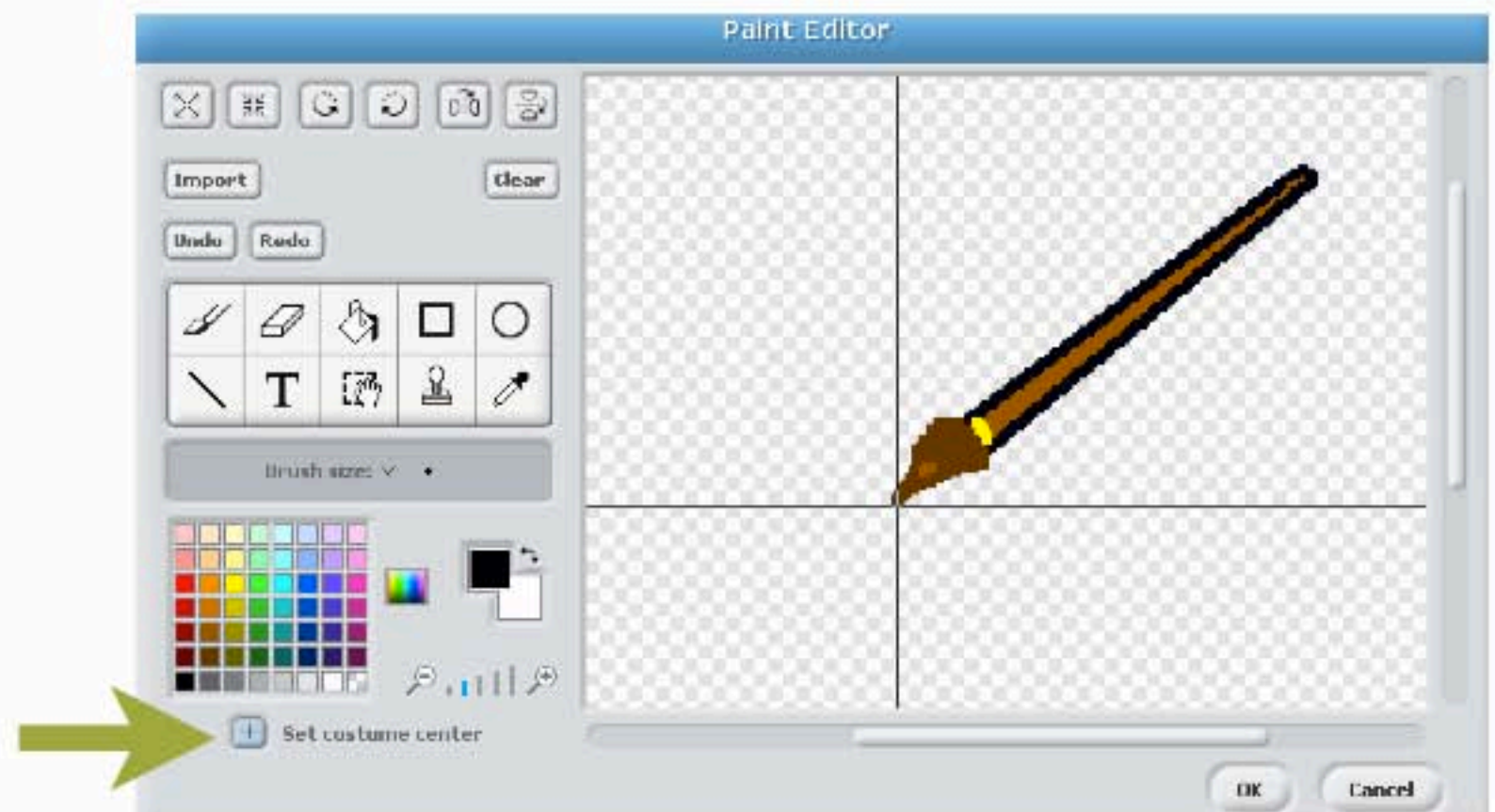
in this chapter

- ✓ the pen tool
- ✓ recording and importing sounds
- ✓ adding multiple levels

Make your own Painting Program!

You have probably used a number of different paint programs to draw your own pictures - you find them all over the internet and in many different games and programs - even in scratch. Today you are going to create your own Painting Pad... from scratch!

1. Let's begin by creating a sprite that looks like a paintbrush. After using the Paint Editor to draw the paintbrush, click on the **Set costume center** button and set the centre of the brush at the tip of the bristles. This is where the "paint" will appear to come from.




2. Next, build the script below for the paintbrush. The script should make the paint brush follow the mouse-pointer and it will leave a pen mark whenever the left mouse button is pressed down.

```
when clicked
  clear
  set pen size to 5
  forever
    go to mouse-pointer
    if mouse down?
      pen down
    else
      pen up
```

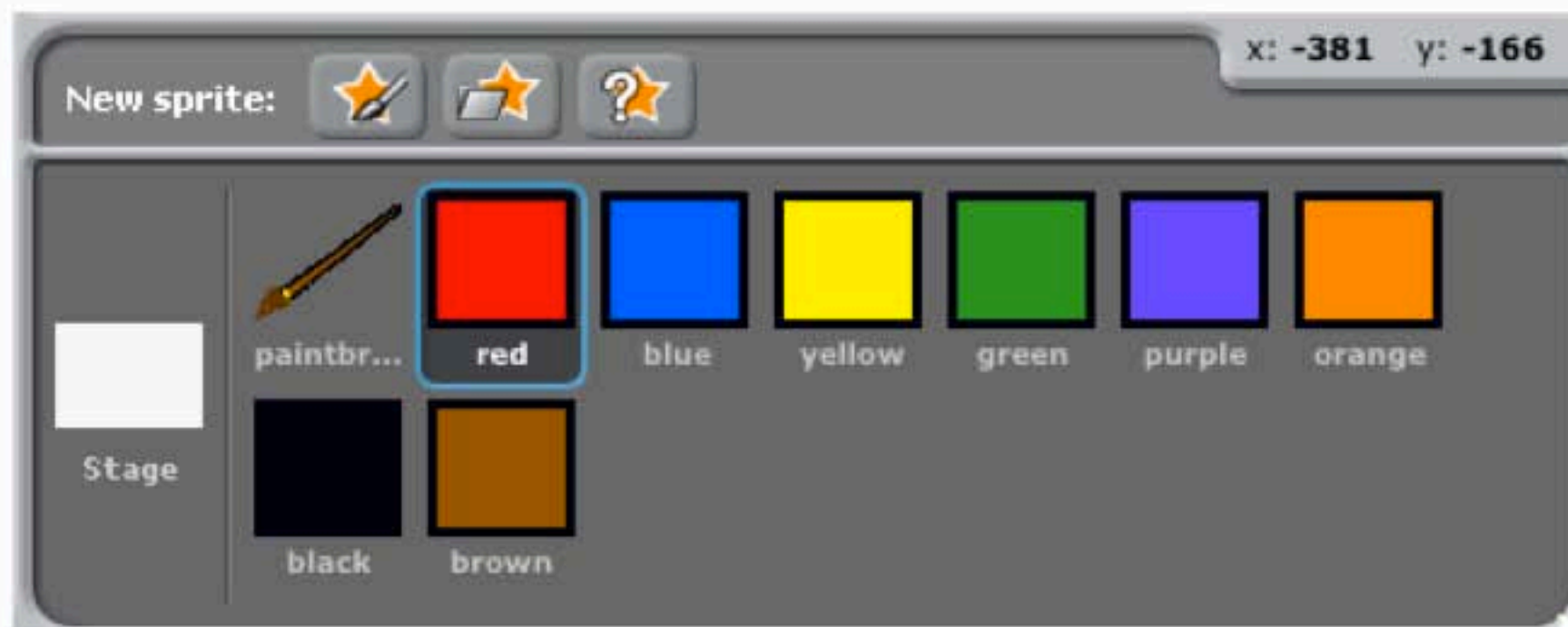
Note: You will have to test this project in **presentation mode** (top right hand corner) because in edit mode you will just "pick up" the sprite when you click the mouse button.

Test and Debug!

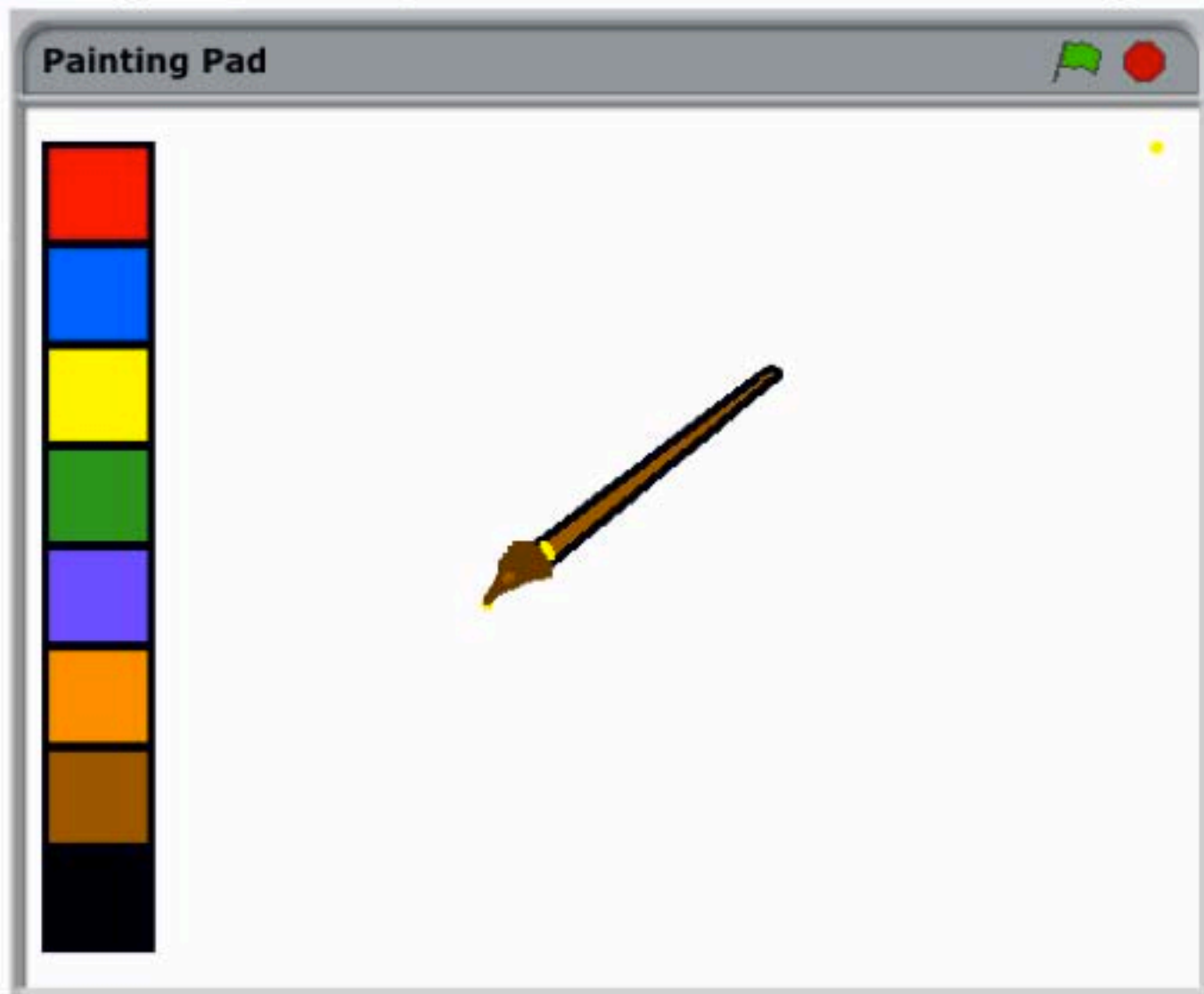
Does your paint brush move with your mouse? Does your paintbrush paint a line when the mouse button is held down? Does it stop painting when you let go of the button?



3. Draw a hollow square and fill it with the colour red. This will become your first colour for the paint pallet. Rename it "red". Do the same for all of the other colours you would like in your pallet.



4. Arrange the colour squares in a row on one side of the stage.




5. Click on the paintbrush sprite and add the following script:

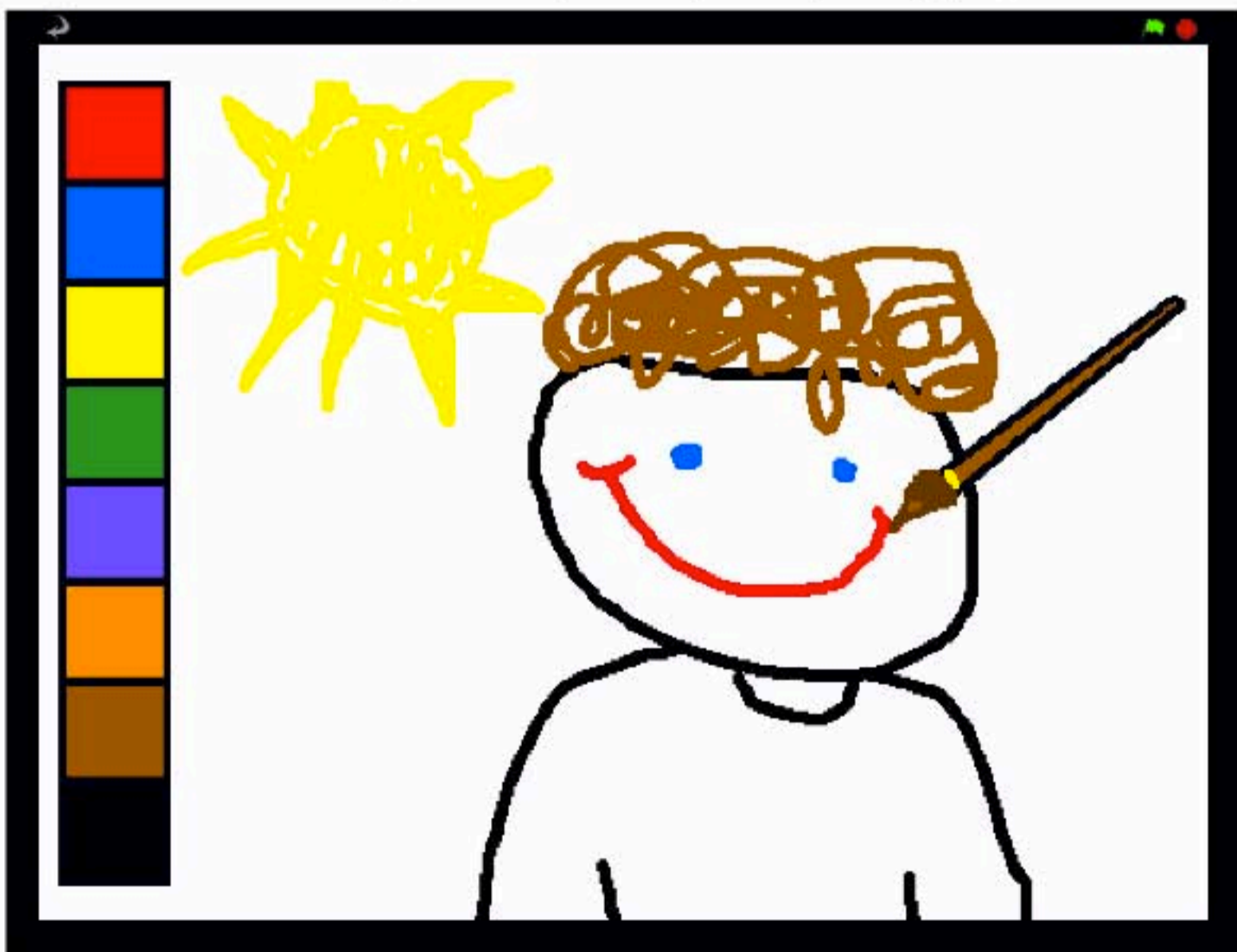
```
when clicked
  forever
    if touching red?
      set pen color to red
    if touching blue?
      set pen color to blue
```

Test and Debug!

Does the paint change colour after dipping into the red or blue paint squares?



Great! Now that you have 2 working colours, create code stacks for each of the other colours as well. Now you have your very own painting program!



Check Your Understanding

1. Change the costume center of the paintbrush to the middle of the handle and run the program again. What happened?
2. a) Change the number in the **set pen size** block to 5. What happened? b) Now change it to 1. what happened to it this time?
3. Why is it important to have the "**clear**" block in the first script?
4. What was Sketchpad and why was it important?

Challenge

1. Think of and add a way to add an "eraser" to the paint pallet.



2. Develop of a way for the user to increase or decrease the size of the pen while the program is running.