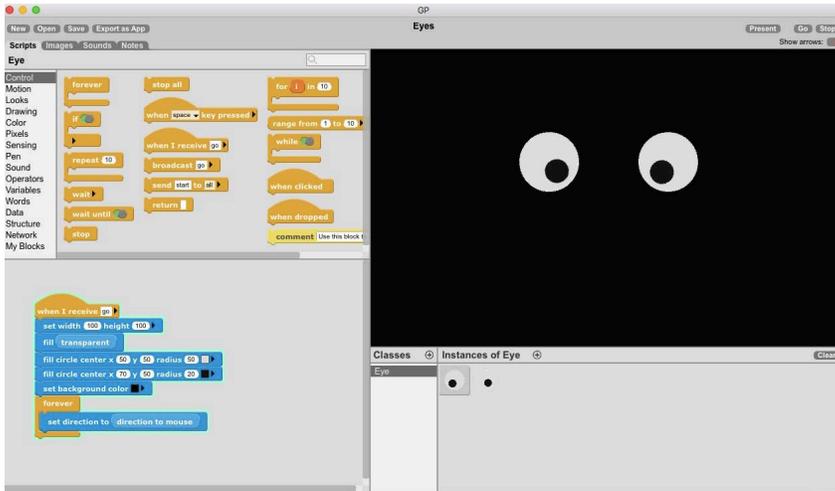




Make an Animation | Eyes



WHAT TO DO

You will create a set of eyes that follow the mouse as you move around the stage. This is an example of how GP can be used to create an animation and how you can draw visual elements in GP. Follow the instructions below to get started and then try the remixes to make it your own!

HOW TO DO IT

In this project, you will create a class that has two instances - one for each eye. First, we need to create the shape of the eye. To do this, drag a **set width and height** block to the scripts area from the drawing category. Use the **fill** and **transparent** blocks to instruct that instance to be invisible.

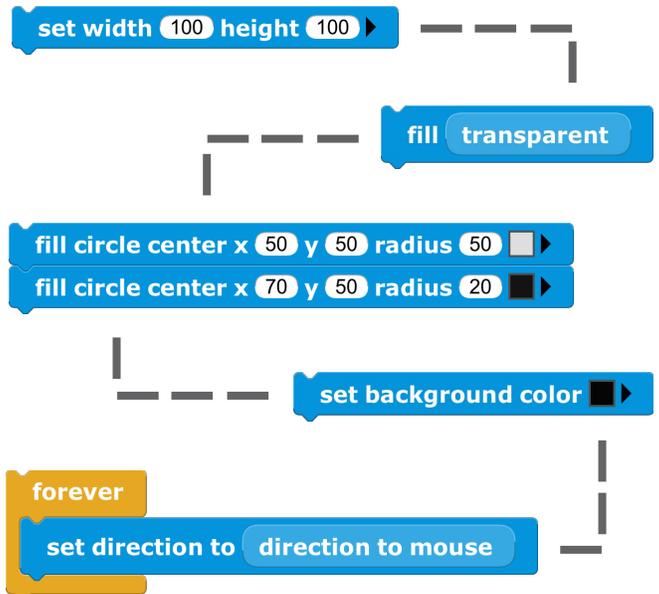
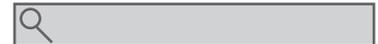
Next, we need to create two circles for the iris and pupil. We will use the **fill circle center** blocks to create this effect. Change the x, y, and radius values to adjust the size of your eyes.

You will now have one eye on your stage. Click the **+** sign next to **Instances of MyClass** to create a new instance. Click **Go** to see both eyes appear on the stage. Change the background color to make your eyes stand out.

Lastly, use the **forever** and **set direction** blocks to instruct the eyes to follow the mouse.

HINT

Use the search bar in the blocks palette to quickly locate blocks.



HINT

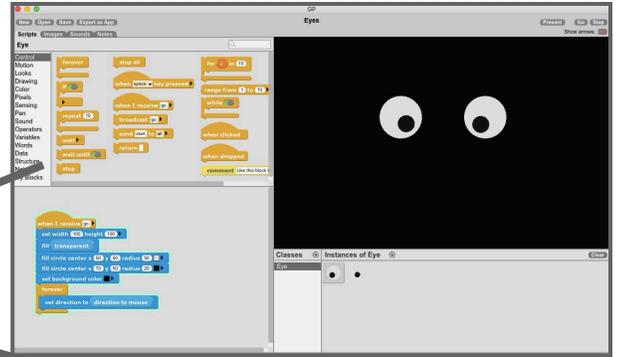
Turn off **Show arrows:** to see the image without the arrows following the mouse.

continued →



```

when I receive go
  set width 100 height 100
  fill transparent
  fill circle center x 50 y 50 radius 50
  fill circle center x 70 y 50 radius 20
  set background color
  forever
    set direction to direction to mouse
  
```



➤ **Classes and Instances**
 A class describes one or more objects that share the same scripts. All the instances of the class act the same even if they have different costumes (like clones in Scratch).

Remix 1

How might you make each eye a different color?



```

fill circle center x 70 y 50 radius 20 random color
  
```

Remix 2

How might you add another image?
 Check out the **Images** tab to paint or import a new image. Add a new class by clicking on the **+** sign in the **Classes** pane and add your new image with the **set costume** block.

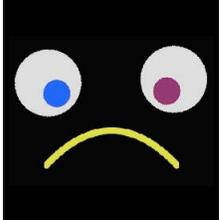
```

when I receive go
  set costume to blob
  go back by 2
  
```



Remix 3

How might you add a mouth that follows the mouse too?

Add a new class by clicking on the **+** sign in the **Classes** pane.

Use the **go to x y** block to put the mouth in the middle of the stage. Add a **forever** loop and start its code by adding a **set width and height** block to 200 and 500 and fill with **transparent**.

Use the **begin path** block to start a line at (0, 200). Extend the line by 200, putting **mouse y** in the curvature parameter to make the line bend when the mouse moves up and down. Finally, choose a **stroke path** block to set the color and width.

```

when I receive go
  go to x 0 y 0
  forever
    set width 200 height 500 fill transparent
    begin path x 0 y 200
    extend path by 200 curvature mouse y
    stroke path width 10
  
```