

Afterimages Lab

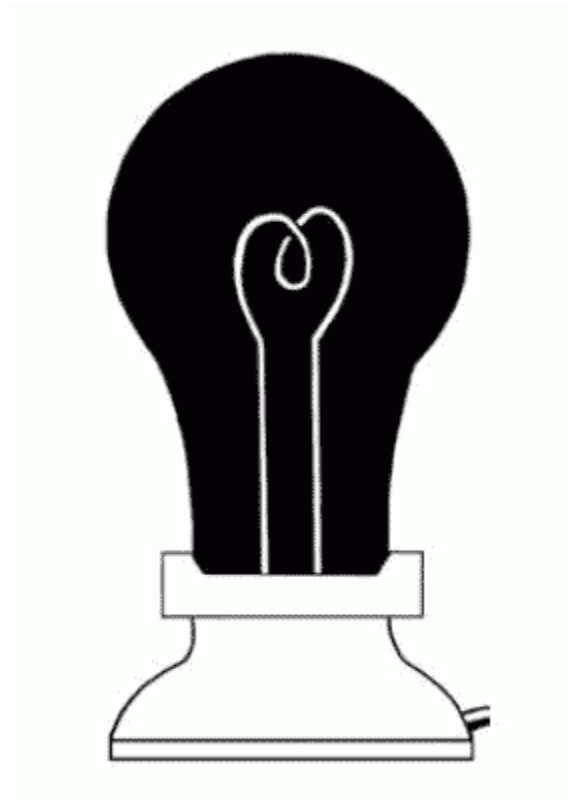
The retina on the back of your eye is covered with nerve cells, rods and cones. The rods detect light intensity (brightness) while the cones detect colors. This activity will put them all to the test. By the end you should come up with a hypothesis as to how the “after” images appear based on this tidbit of information.

History

- I used this technique when I was a child (8-10 years old) to make it to my bed from the door at night after I turned the light out. I would stare at the center of my room (and all of the junk I just would not pick up) for about 15 seconds and then turn out the light. The lingering “after” image I saw allowed me to navigate the junk safely in the dark.

Now for a few introductory samples...

Stare at the center of each picture for about 15-20 seconds without blinking or shifting your gaze...stare. Then go to the next slide without looking away. The afterimage may be brief, so look for it as soon as you switch slides, you may find quick blinking helps you see the image longer.



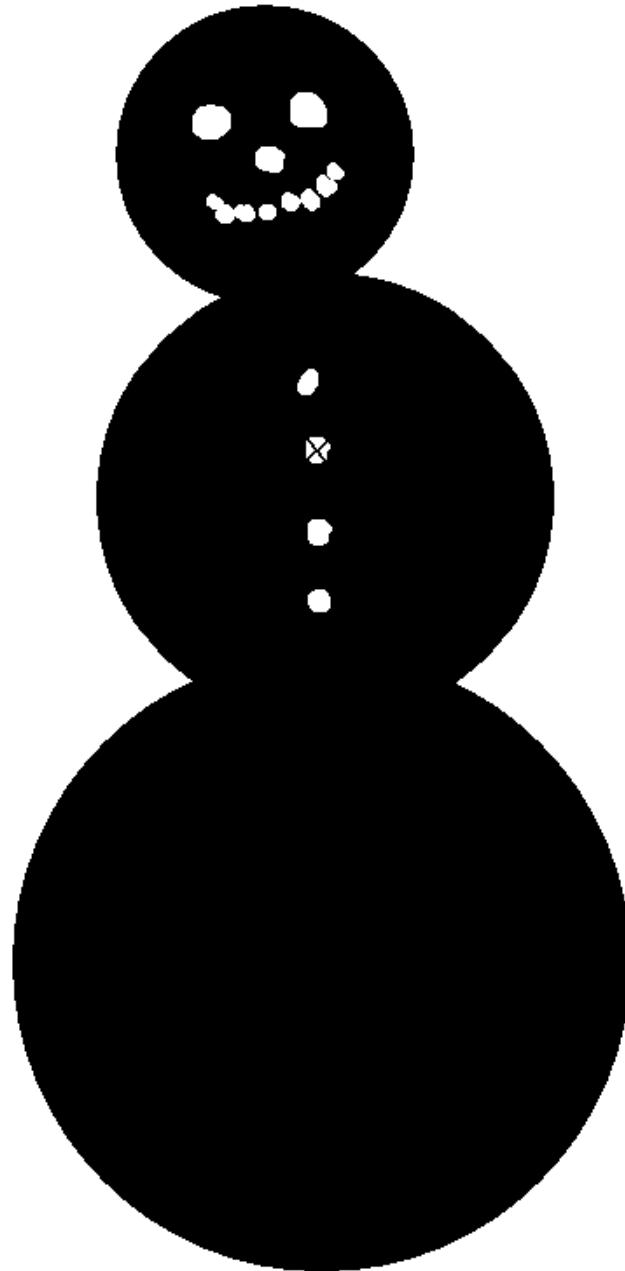
Eureka!



Even in color!

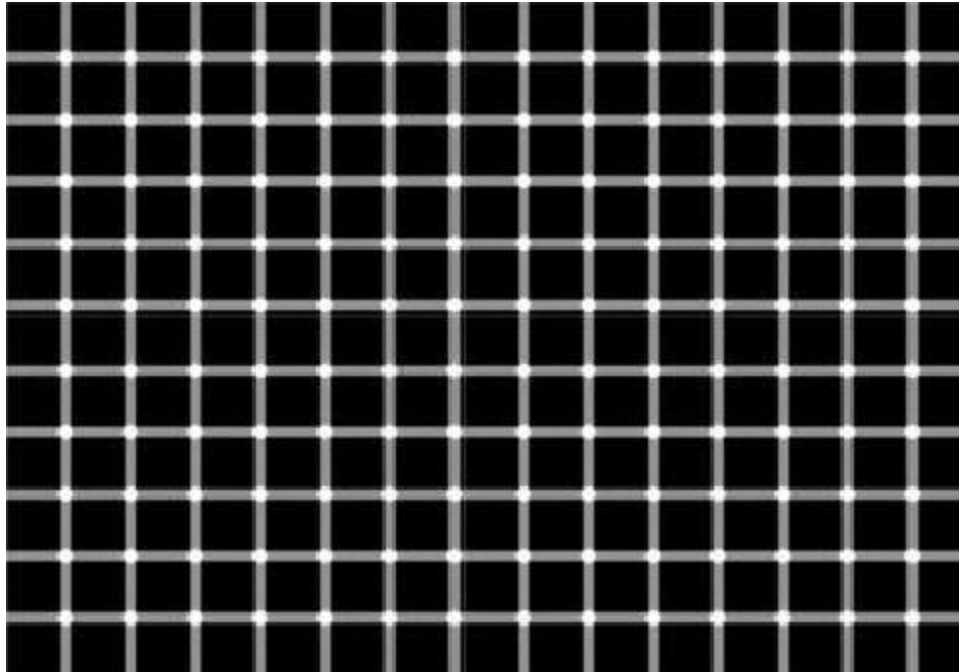
Part I
#1

Here's
where the
actual lab
procedure
starts, so
follow it on
your paper
from here
on.

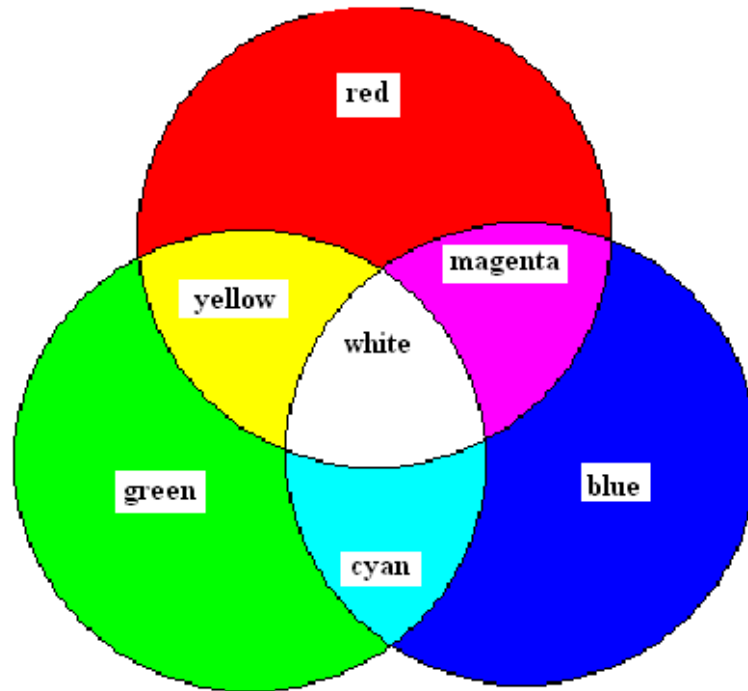


**You might even say he
glows!**

Part I
#2



These are the main colors. Compare what you see to these and use the closest from this diagram. Black is an option not shown.

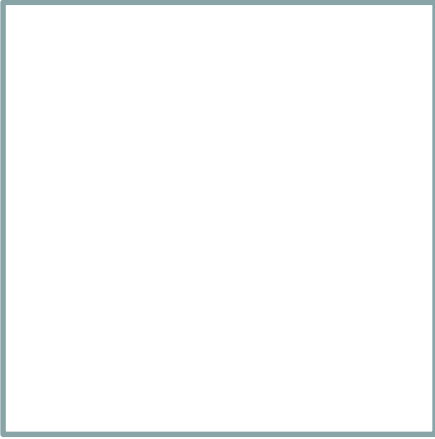


Part II

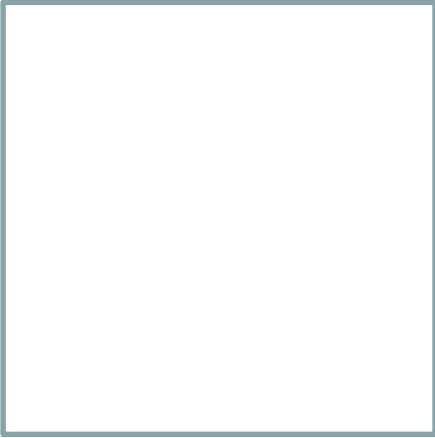
3. Complete the predictions on your chart first then make your observations.
4. This PowerPoint uses white backgrounds instead of the black background used in the procedure.

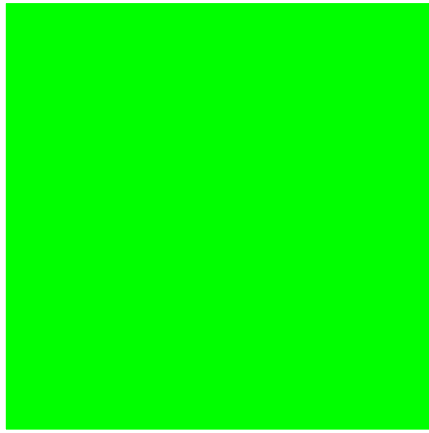
Simply advance the slide when you have stared long enough to see the afterimage

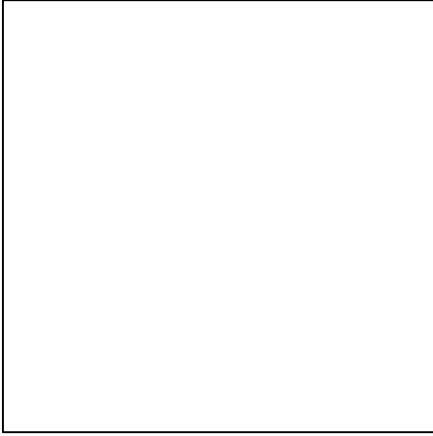


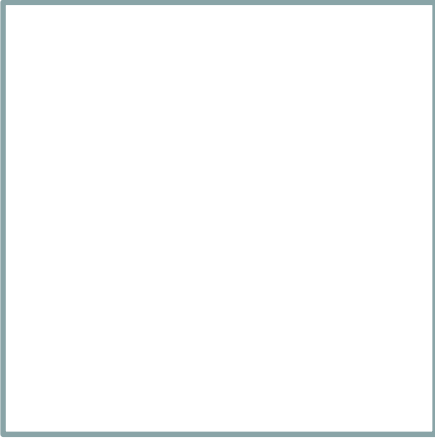


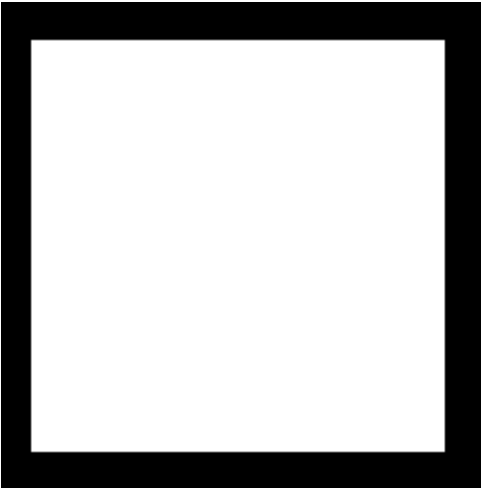


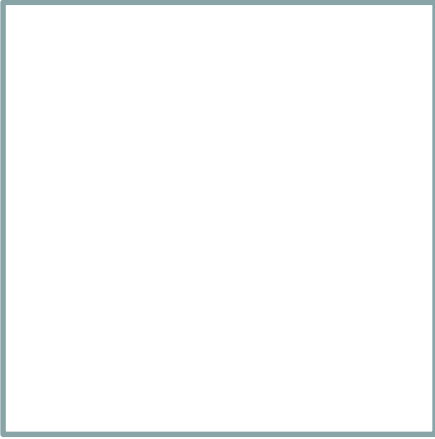


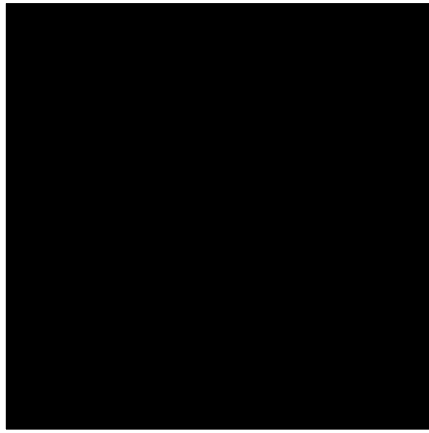


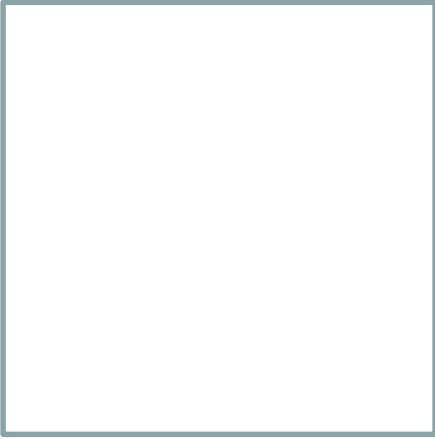












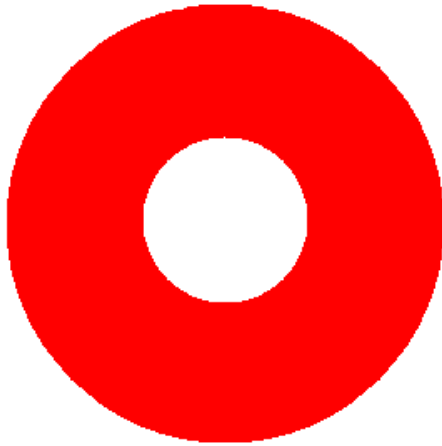
Have your Part II observations approved

Part III

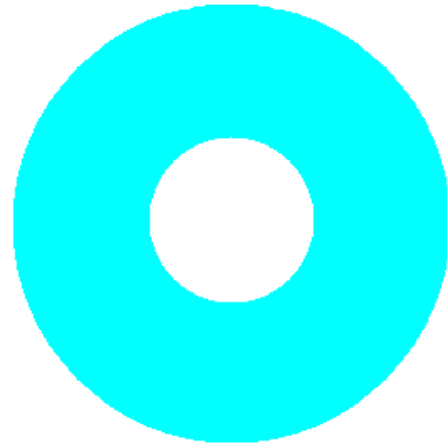
6. Complete the predictions on your chart first then make your observations

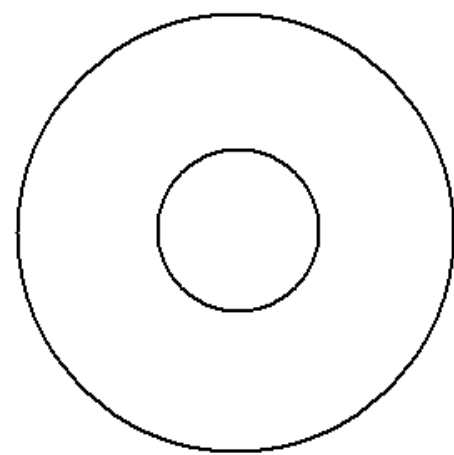
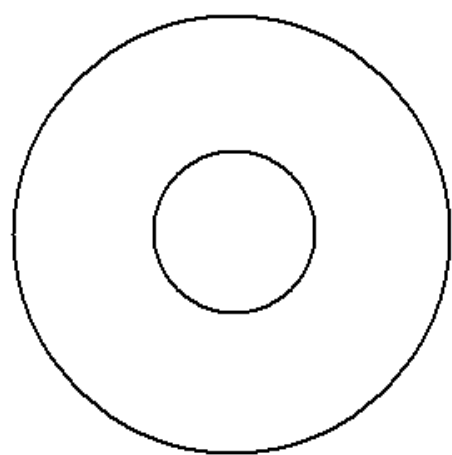
Part III

Red

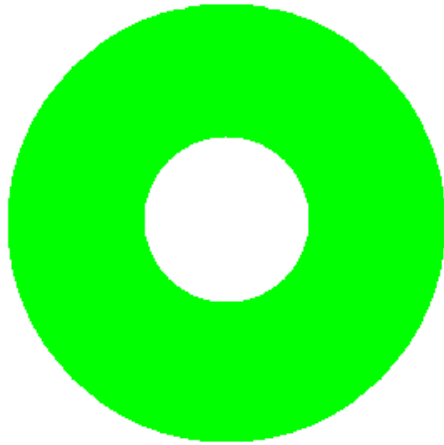


Cyan

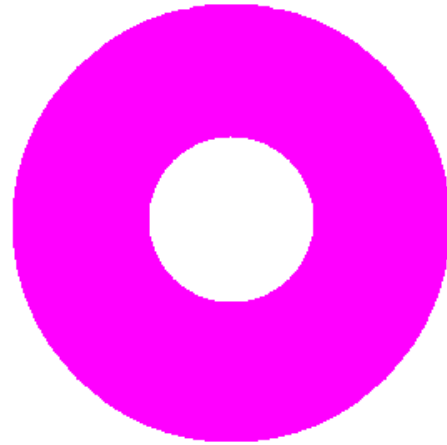


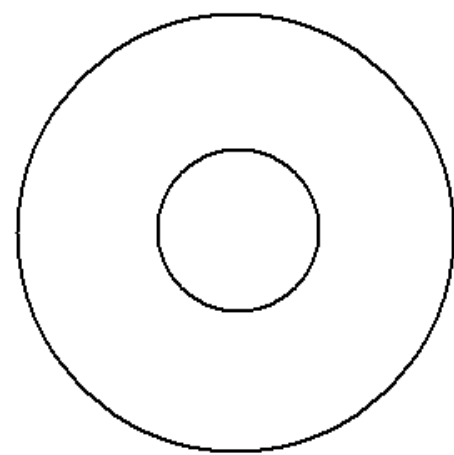
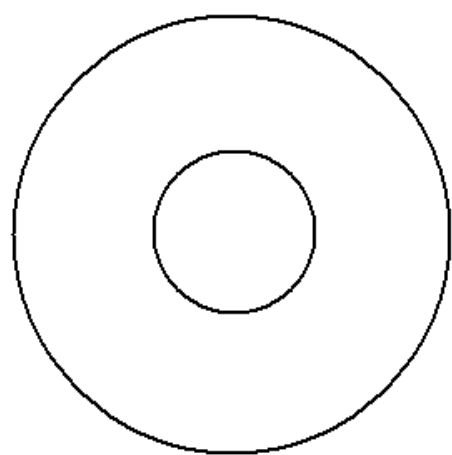


Green

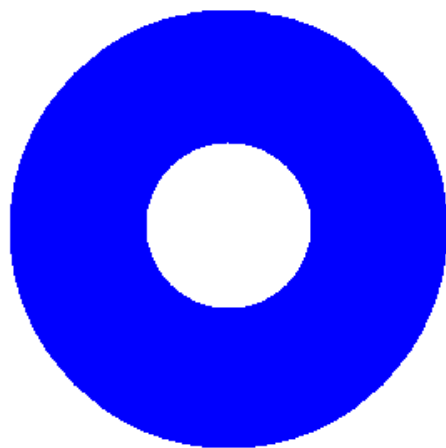


Magenta

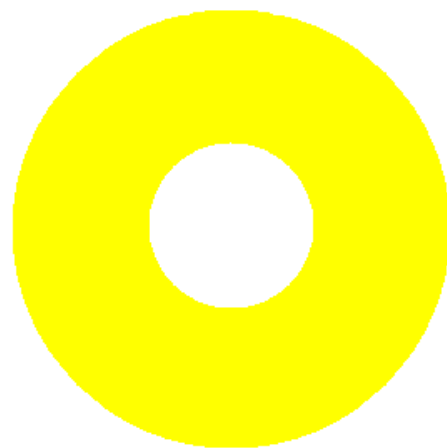


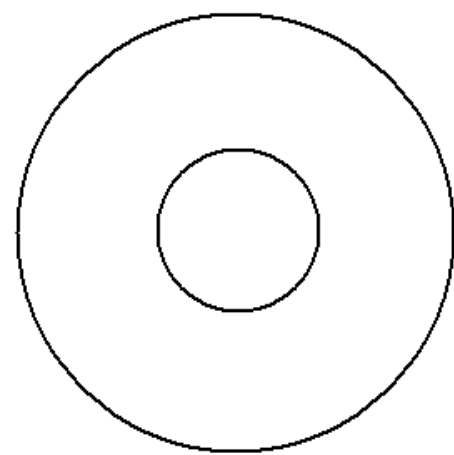
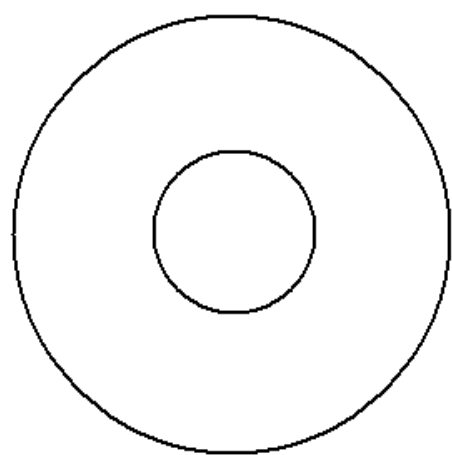


Blue



Yellow





Have your Part III observations approved...

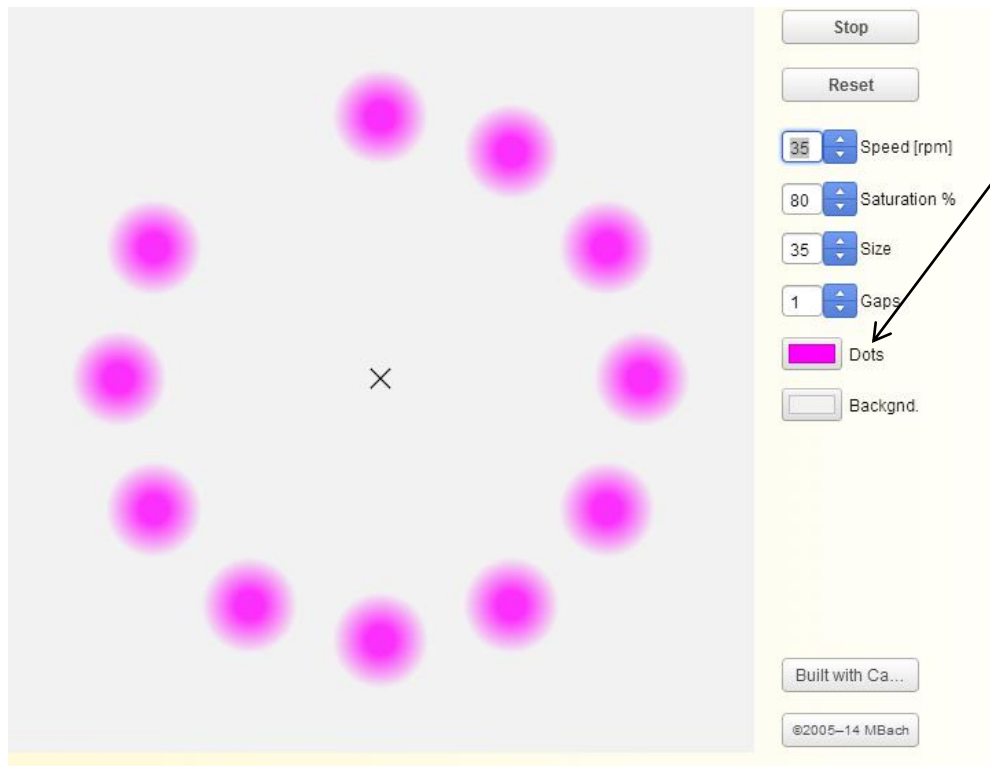
Now complete the Analysis...

The slides that follow are just for fun try them after you have answered the analysis questions at the end of the activity.

The Lilac Chaser...

follow the directions on the website...

you can change the colors by clicking here



[Click here](#)
to go to the
website

