

## Lab # 3: Pinhole Camera

A. Complete this:

YOUR NAME Neil Sawhney SLOT \_\_\_\_\_

PARTNER'S NAME \_\_\_\_\_

PLEASE CHECK THE CIRCLE NEXT TO YOUR LAB SECTION:

☐ A, Prof Yecko, Mon 1–3 PM☐ B, Prof Webb-Mack, Tue 2–4 PM☒ C, Prof Yecko, Wed 10 AM–12☐ D, Prof Corn-Agostini, Thu 9 AM–11 AM☐ E, Prof Webb-Mack, Tue 9–11 AM☐ F, Prof Yecko, Fri 1 PM–3 PM

B. Read and sign Academic Integrity Statement:

*I hereby attest that I have not given or received any unauthorized assistance on this assignment.*

Neil Sawhney  
Sign here

C. Grading rubric:

CATEGORY AND VERY BRIEF GRADING COMMENTS.....	PTS AVAILABLE	PTS EARNED
Self Portrait	9	
Demonstration of Physical Principle	4	
Alternate Developer	2	
<i>Total</i>	15	

# Lab #3: Pinhole Pictures

Neil Sawhney

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All photos were inverted, and had their contrast, levels, and exposure settings tweaked. Some were scanned in with a dslr camera, and some were scanned in with my iphone. The dslr scanned images have also all been desaturated.

## 0.1 Self Photo



The first photo was blurry and had light leaks on the edges, in the second photo I stayed more still and closed up the edge leaks. Although, some light still leaked in from the corners.

## 0.2 Physical Phenomenon



The pictures show a light bulb with a thin long filament. When current goes through a wire, it creates a magnetic field. Because the light bulb is powered with ac current, the magnetic field it creates

is alternating rapidly. Since the filament is too long and thin to support itself in its magnetic field, it flaps back and forth rapidly as it glows. The left most photo was taken in the dark, and the wall behind it is illuminated by the flapping filament, hence why you see a blurry section of a circle. The second photo was taken inside with the lights on so that you can see the podium it stands on.

### 0.3 Alternative Developer



By mixing 12 oz of tap water, 3/4 tsp of vitamin C powder, 5 tsps of instant coffee, and 3.5 tsps of washing soda, an alternative developer was made.

On the left, only a small portion of the image developed correctly in the alternative developer, however on the right, in a new batch of alternative developer, the entire image came out correctly.

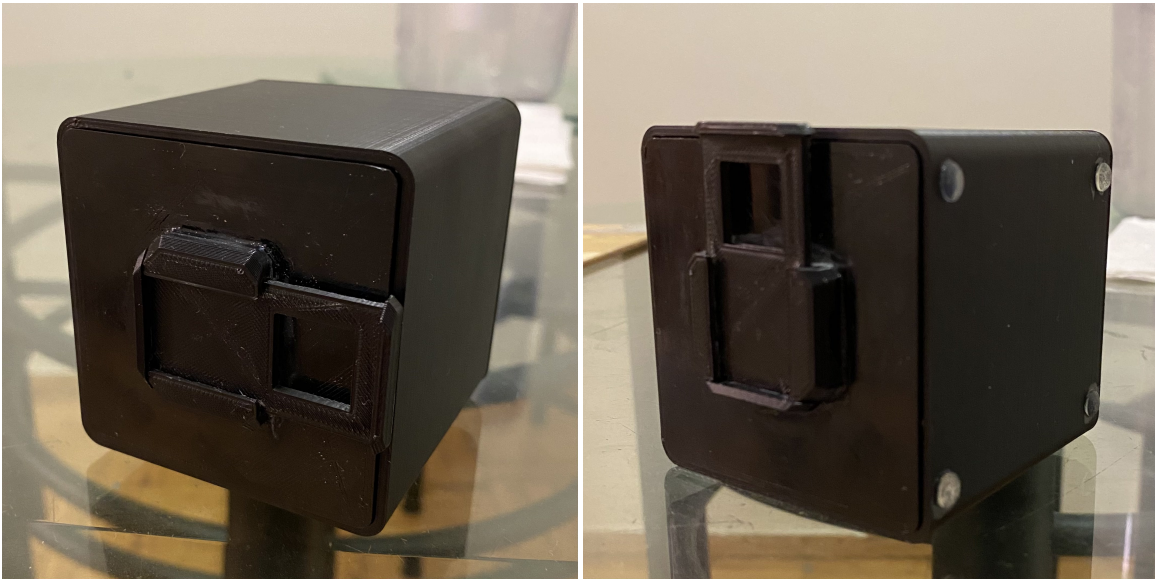
## 0.4 Other Stuff

### 0.4.1 Random Photo



This Photo fulfills none of the requirements, but I like it so here it is.

### 0.4.2 3d Printed Pinhole Camera



If you notice that some of the images have crisper edges and less blur, that is because I decided to 3d print myself a pinhole camera with a nice little sliding shutter. I completed all the requirements using the paper camera just in case that was considered cheating, so ignore the right most photos in Sections 0.2 and 0.3 if it is.