## wubby User Manual

This is a webcam interface implemented in java that allows users to select from a variety of filters and take photos with. The webcam is easy to use, with self-explanatory buttons for the user to select from and apply filters, and take a photos.

The user can select one of the following filters:

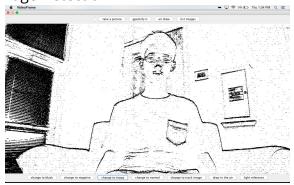




Black and White



**Edge Detection** 



Negative



Drawing (filter that detects drawing tool)



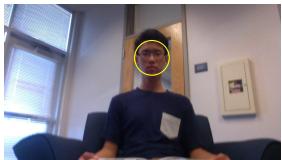
Canvas (separate frame that draws)



GPeckify

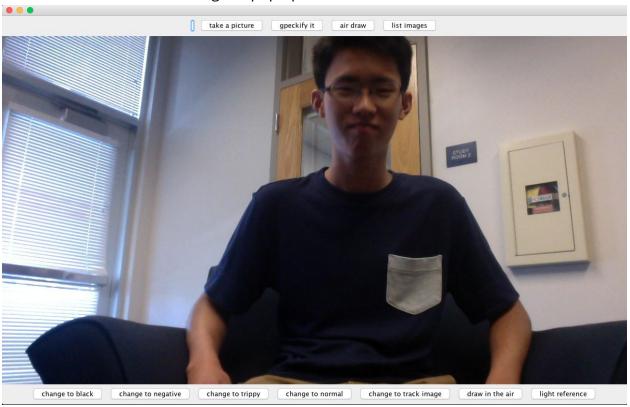


Processor



When the program actually starts up, the console will say that it is "Cleaning up the camera" and you might see the camera light turn on and off—this is just to have a fresh stream of images start so there is no initial lag.

Then a screen like the following will pop up:



All the buttons are pretty explanatory but in case here is the documentation for the buttons:

## **Bottom buttons:**

"change to black" → changes the video to a black and white filter

"change to negative" → changes the video to negative filter

"change to trippy" → changes to the edge detection filter

"change to normal" → returns to the normal video stream

"draw in the air" → starts a Canvas frame to draw on, but will **not** work unless you have already referenced light (i.e put your drawing tool in the middle of the screen and pressed "light reference")

"light reference" → makes the brightness threshold whatever set of pixels is in the middle of the video stream

## **Top buttons:**

"take a picture" → takes a picture and stores it under "filepathToProject/images/"

"Gpeckify" → takes a picture but layers all the detected faces with Mr.Peck, and stores under "filepathToProject/images/"

"track faces"  $\rightarrow$  takes a picture but layers all the detected faces with an ellipse, and stores under "filepathToProject/images/"

"list images" → prints a list of all the images taken to the console