

Setting up Webcam Mouse Control

Requirements:

Download the program via the GitHub repository

Webcam

Highly Recommended:

An IP webcam (ex. mobile phone).

A colored glove or a background that does differentiate from your skin tone.

Instruction

1. Go to the GitHub repository and download the program from [\[here\]](#).
2. Put the .exe file in its own folder as it will generate a config and log file.
3. Launch the .exe file.
 - If you are using a Linux or Mac machine, check the additional instructions section.
4. You will be met with multiple options. If you are using an integrated webcam, you select that box, otherwise you select the IP webcam box and type in the address for your webcam.
 - Check the extra instructions section if you do not have an IP webcam setup. The program may not give a direct error if it can not connect to your integrated webcam.
5. By default, the screen resolution is set to 1920x1080, press the detect button and it will automatically check your resolution. If you are using a two-monitor setup you can add on the width resolution of the second monitor.
6. Press the "Calibrate" button and it will take you to a new window. The window that opens will help guess the values needed for the program to detect your hand. Once the hand is completely black you can press the key 'f' to continue with the process. If background outside your hand is black, that is completely fine as you can tune the calibration on the next page.
7. Once you are on the calibration page you will be able to change the lower and upper bounds of the color. The hue variables tend to not need change. What is needed is that the only black regions selected be the hand, you can bring the bounds of the lower and upper values of the Saturation and Value to ignore the background.
 - If you are having a difficult time calibrating it is recommended you have a light source pointing towards the hand (if you are using an IP webcam you can enable the flashlight on your phone) and using a colored glove.
 - If you want to reuse the original estimation window you can simply hit the "exit" button and go, click the "Calibrate" button again.
8. Once you are done configuring the settings, press the "Save Settings" button and continue with the "START" button to go into the mouse control portion of the program.
9. The box on the window signifies the border of your screen, holding two fingers will allow you to move your cursor, three fingers will left click, and holding all five of your fingers will right click.
10. To exit the program, press the key 'f'.

Additional Instructions:

IP Webcam:

If you want to use an IP Webcam and you own an android phone you can download [this app](#) and follow [this video](#) on how to setup the webcam. Make sure when you set the IP on the software that you add “/video” at the end of the local IP as to get the video feed.

For Apple phone users you can attempt to use [this app](#) as a method of connecting your phone to your pc via local network for free.

- Using IP webcam, it is recommended you use the LED function on the app as to make calibration and changing of lighting minimal.

Linux/Mac Machine:

.exe files will not run on these platforms. You will need to install python on your machine and pip install the files located in the “requirements.txt” file of the software folder [here](#). Once done you can download the software repository and put it in a folder running the program via the “app.py” file.