

Create Facebook or Instagram AR Filters with Spark AR Studio



Background

Most of the developers are recently using Unity3D + Vuforia as their major AR toolkits. It is the most reliable and flexible option for creating AR applications, despite its complex user interface and hundreds of variables to work with. One of the limitations in the AR development process is that you will need a place to host your assets and markers. Most of the free options are crossed out.

In the past, there were many free and user-friendly AR apps such as Vidinoti, Aurasma, and Metaio. They had been used by many educators to create courseware for kids. They were also good for beginners who just wanted to try out the technology. However, due to the high competition in the market, many free services were taken over or discontinued.

	<p>Unity3D + Vuforia is a classic, yet efficient, method to create AR application. There is a free version available for students. It is the most flexible among the others, only that you have to deal with hundreds of variables. If you have time, it's worth trying this one.</p>
	<p>Aurasma was taken by Hp, became Hp Reveal, and was terminated.</p>
	<p>Metaio was taken by Apple, and was terminated.</p>
	<p>Vidinoti remains free till this date. It's the one with easy user interface but with many limitations. If Spark AR is still difficult for you, try this one.</p>

The one we are going to use in this activity is the “Spark AR Studio” which belongs to Facebook and the service remains free. You just only need to login using your Facebook account.

Requirement

1. Facebook account (this application/website is owned by Facebook)
2. Windows or Mac computer with more than 1 GB storage space
3. Smartphone with Facebook app (Android/iOS)

Instruction

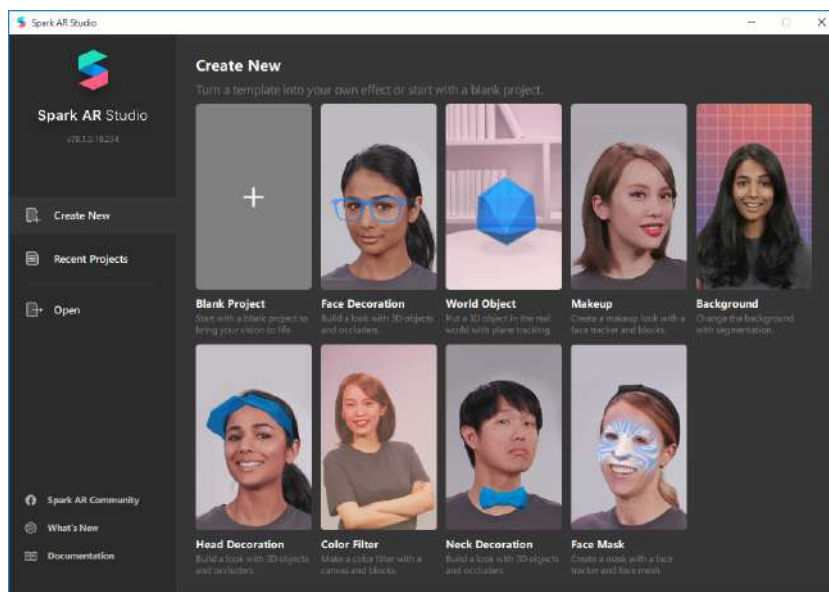
1. Download the installer from the website

<https://sparkar.facebook.com/ar-studio/download/>

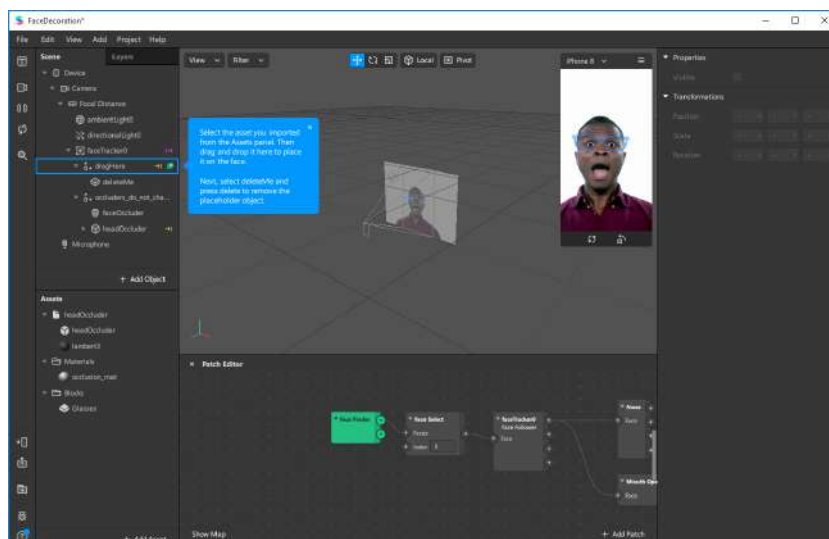
It automatically detects your OS (Windows/Mac). The installation file itself is about 500MB.

2. Install and run the program. It will ask for your Facebook login. Don't worry, it's safe. Notice the suffix ".facebook.com/" in the URL. This application is officially Facebook-owned. That should be the same Facebook account running on your smartphone so you can test your newly created AR right away.

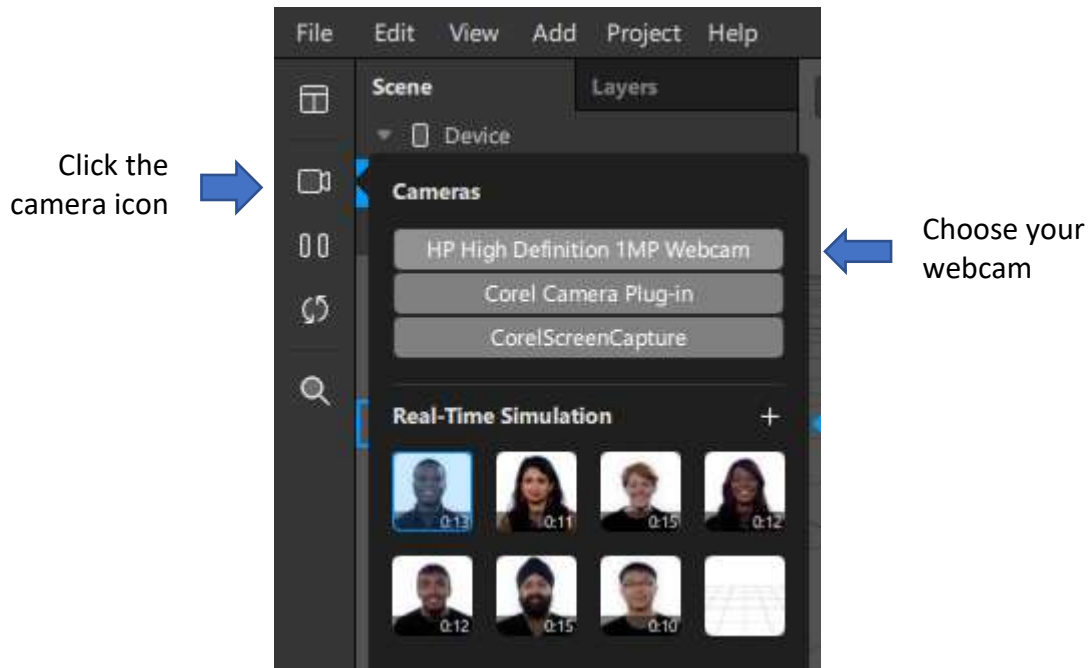
3. You will see some examples. And it's good to start from there.



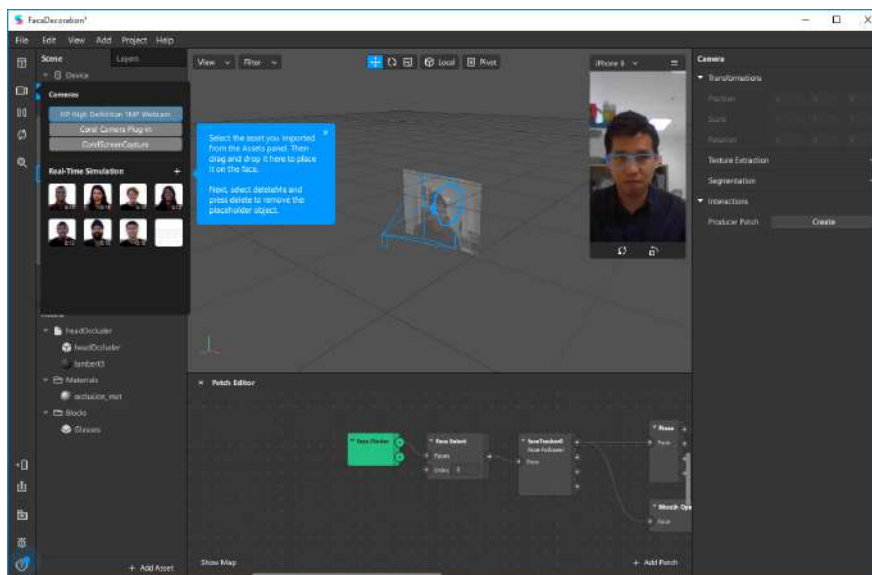
4. Let's begin with the "Face Decoration". For the given example, the AR app detects locations of your facial figures including eyes, nose, mouth, ears, etc. It gives you a pair of glasses for your start.



5. Now let's see what it looks like on a real camera.

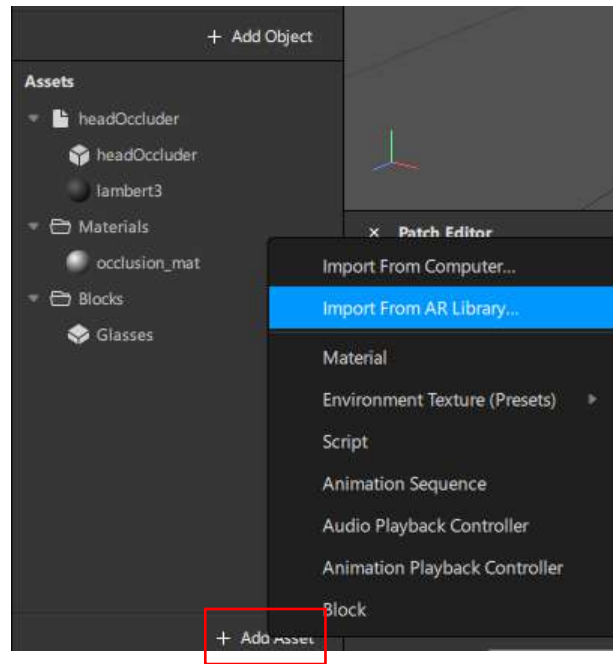


6. See the result.

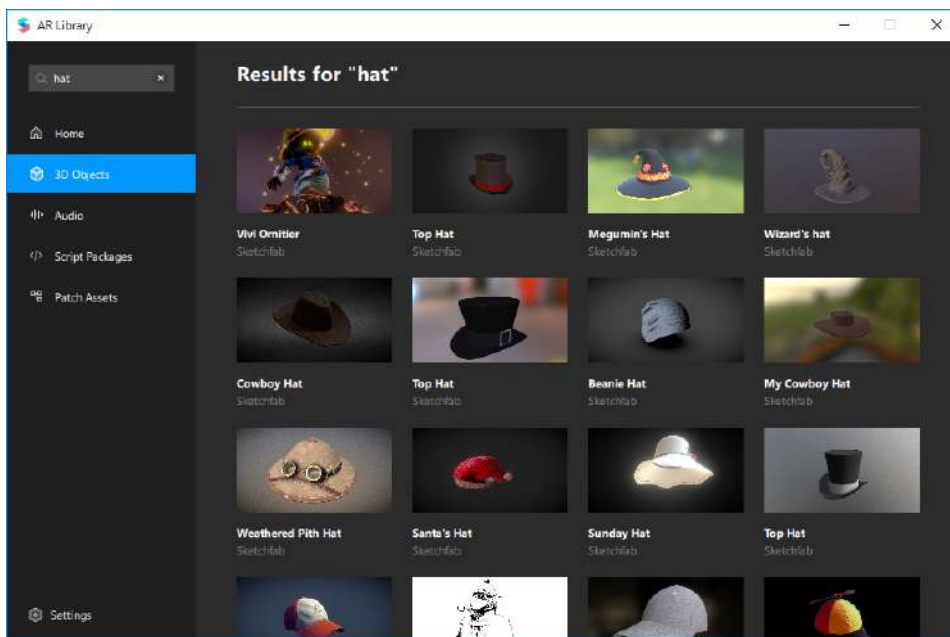


7. Now add more items. Think of any object that can be put on your face/head. It can be hat, mustache, lips, ears, etc. You may search a 3D image using the program itself or has the file pre-downloaded.

To use the Spark VR built-in search engine, go to “+ Add Asset” (not + Add Object) and choose “Import from AR Library” .

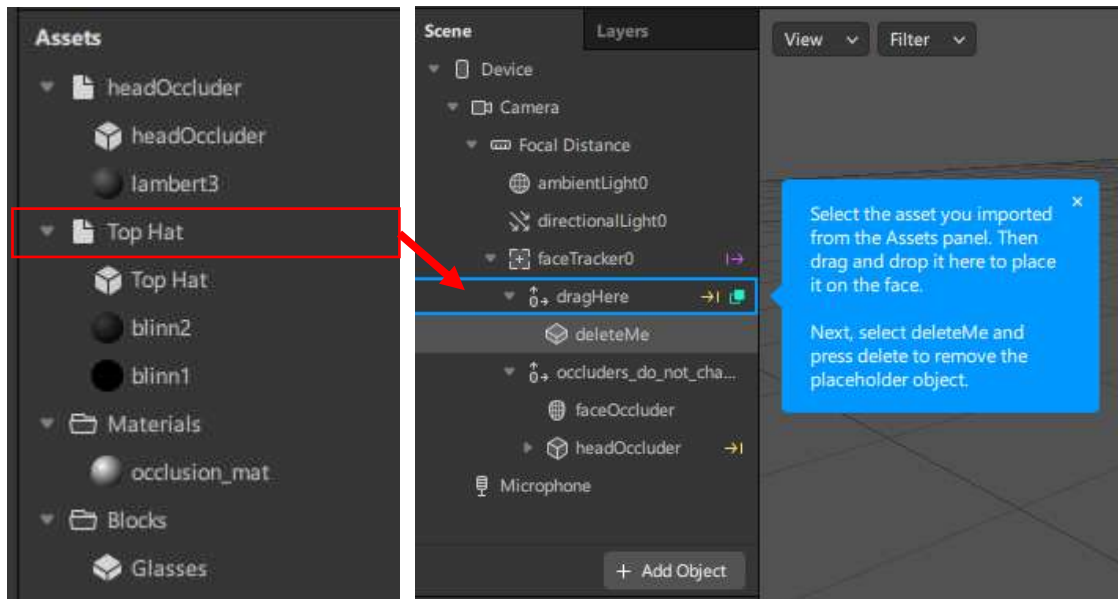


8. Try searching for “hat” under the “3D Objects” category.

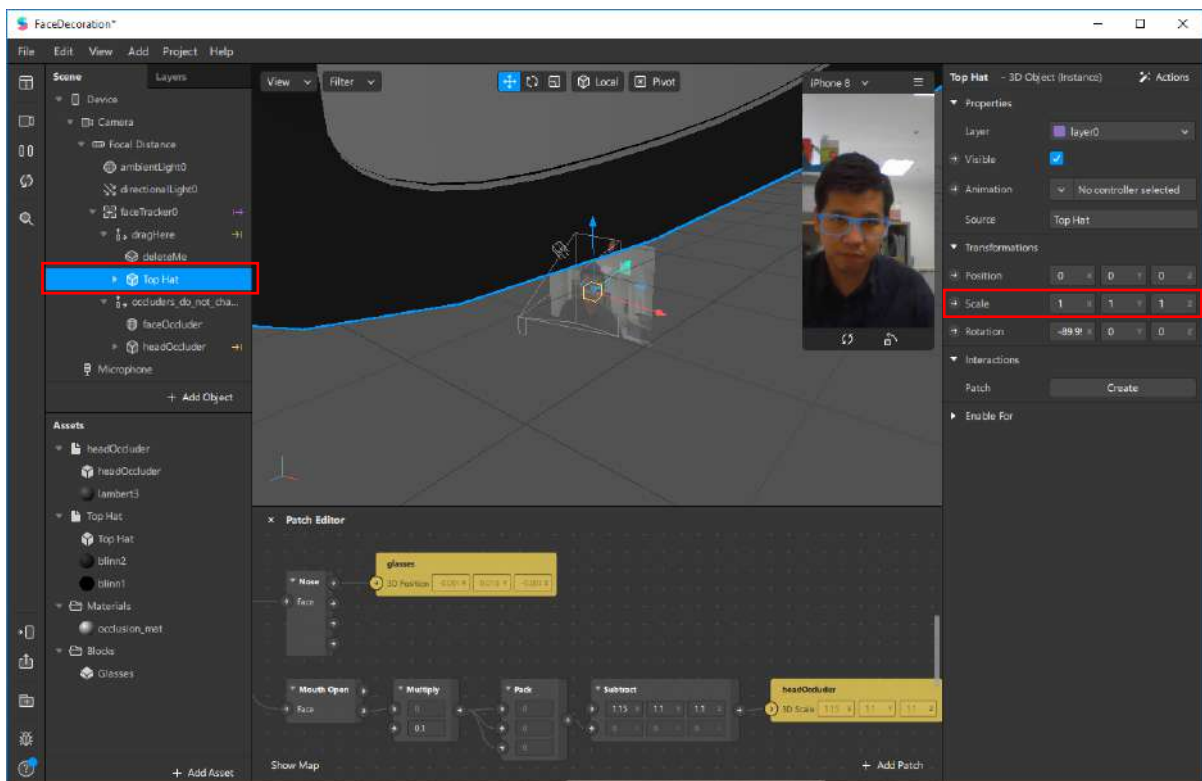


Note that most of the assets provided by the Spark AR Studio are provided by Sketchfab. You may need to create a Sketchfab account (Free). Alternatively, you can download any 3D model from any site. There are tons of free 3D models on the web. Just refine your Google search. If you choose to pre-download a 3D model from elsewhere, you should get a 3D-format file such as .obj or a ZIP file which can be imported into the program directly. Do step 7 but choose “Import from Computer” instead.

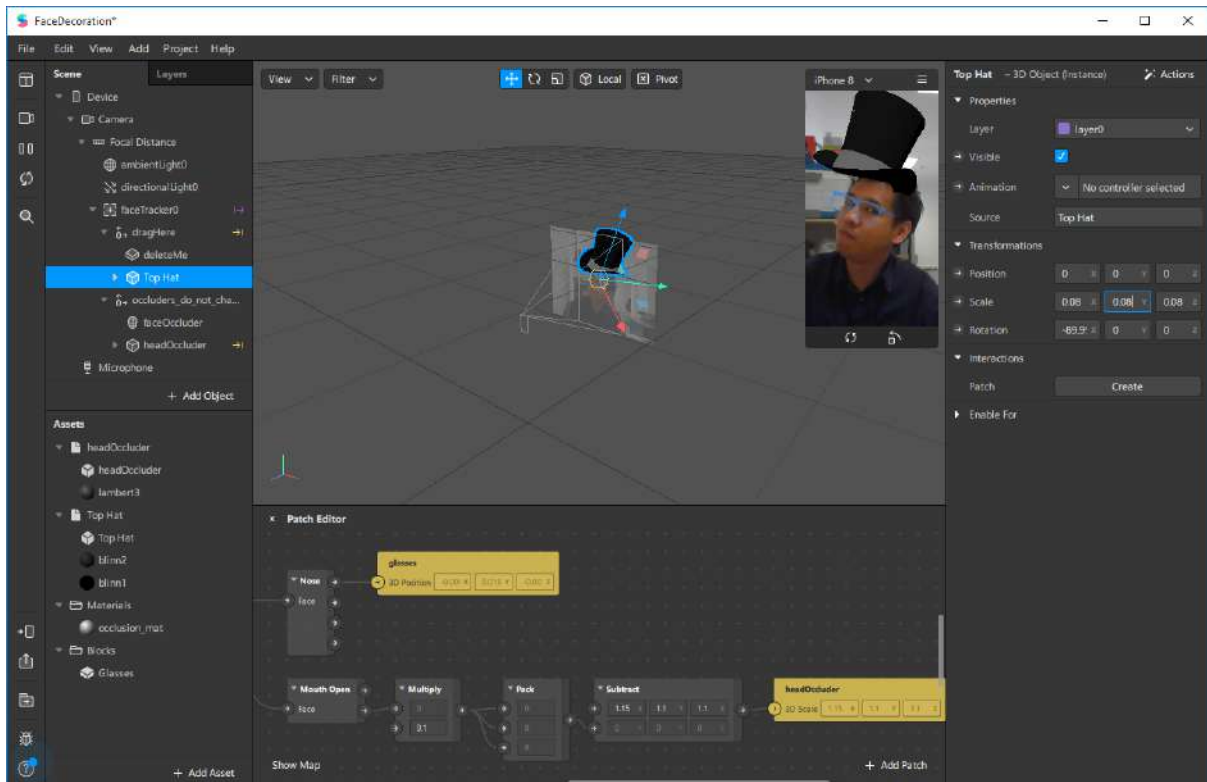
9. No matter which method you chose, you should have your asset appears in the list. Drag it to the location under the “faceTracker0” as instructed by the program.



10. If the hat is too big or too small, you will have to resize it to match your head size. Have the hat asset selected and rescale it on the right panel. Try 0.5 on all x, y, and z and adjust accordingly.



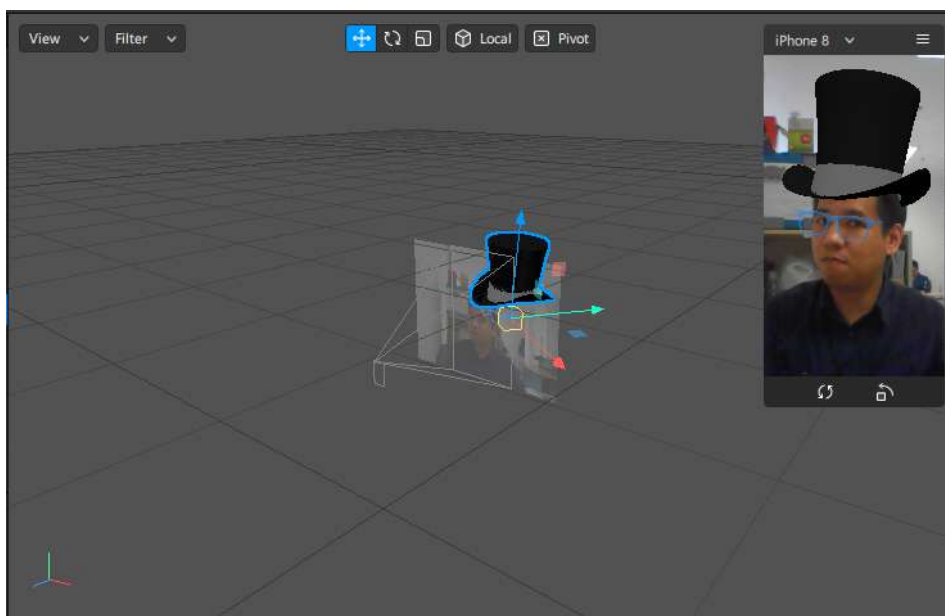
11. For this example, I ended up with 0.1 scale. But the hat did not fit on my head. So, I will have to adjust the position.



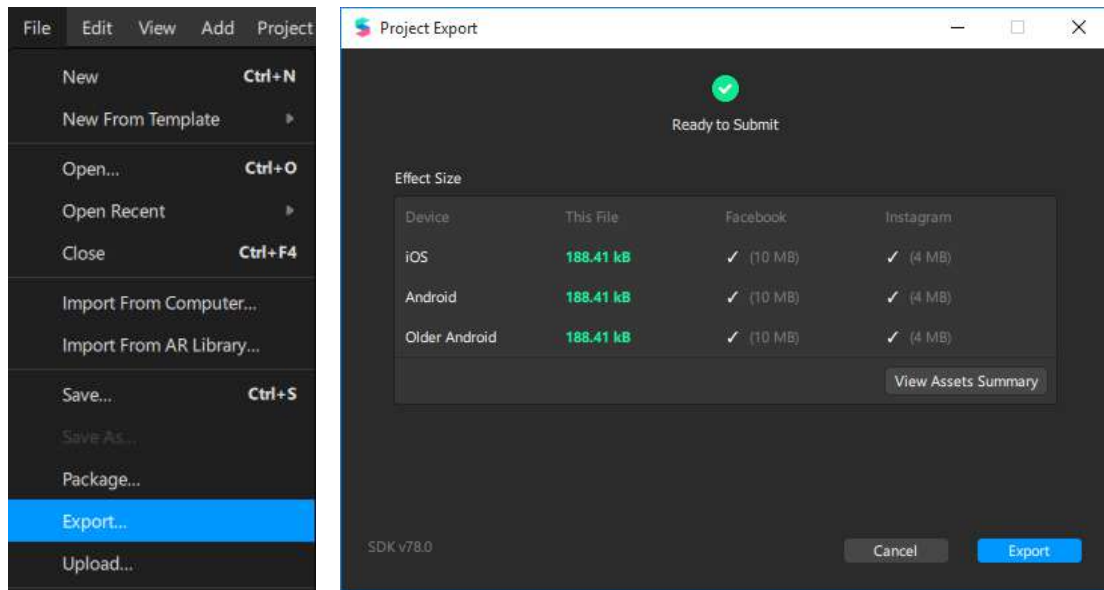
Tip for adjusting the position. I will work on one coordinate at a time.

- First, look straight and adjust the x axis (red) by dragging the red arrow.
- Next, look to the side and adjust the y axis (green).
- Lastly, look straight and adjust the z axis (blue).

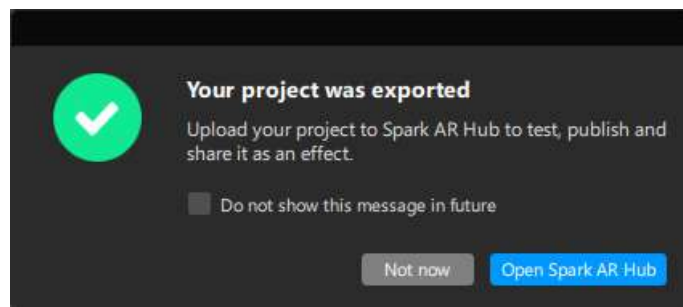
Adjust the position of the hat until you get the desired result.



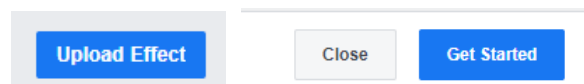
12. Export the AR. Go to “**File**”, “**Export**”, and click “**Export**”.



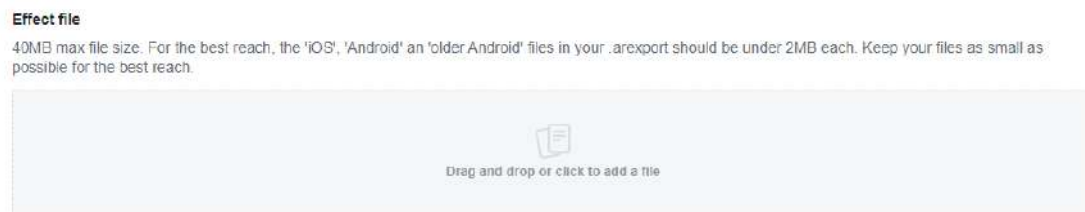
It will inform you to “**Open Spark AR Hub**”. Click on it.



13. Make sure your Facebook login credential is correct. Click on “**Upload Effect**”. If “**Get Started**” button appears, click on it.

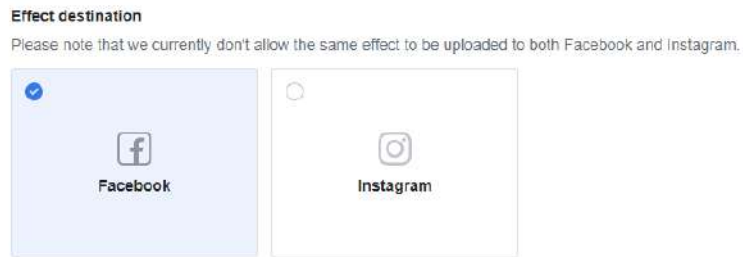


14. Browse for your exported file (.arexport) or drag and drop a file into the upload box.

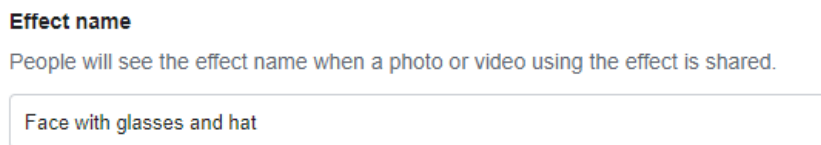


Don't worry if you get “The file is too big.” Warning message. That is because the 3D model you used was made big at first. To deal with that you will have to rescale a 3D image and we are not going to do that this time. Just read the warning message and neglect it for now. You may try compressing the project file as instructed but it will not help that much because the source of the big file is a 3D model.

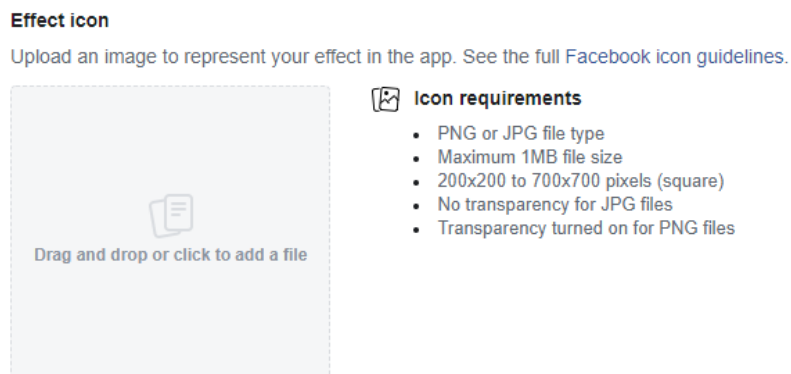
15. Choose the “**Effect destination**” (should be Facebook).



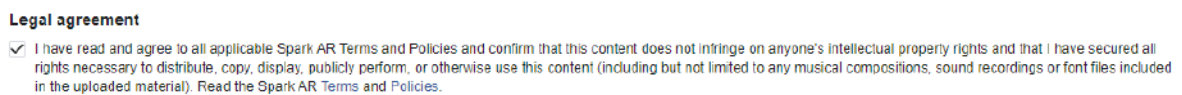
16. Choose the “**Effect name**”. It’s optional for now since you are not going to publish your AR. If you plan to do that, the effect name should be something people can recognize easily such as “Face with glasses and hat”.



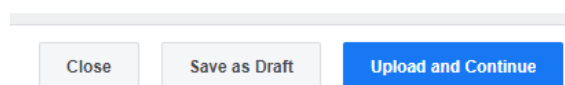
17. You will have to provide an “**Effect icon**”. It works like an application icon on your smartphone. Search for one from Google. Notice the requirement on the right.



18. Check the “**Legal agreement**”. You know what should not be shared, right?



19. Choose “**Upload and Continue**”.

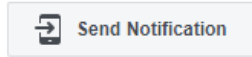


Check if your information is correct, and click “**Continue**” again.

20. Wait for a moment until your AR is successfully created. Once completed, click on the “**Send Notification**”. You will receive a notification on your mobile Facebook app.

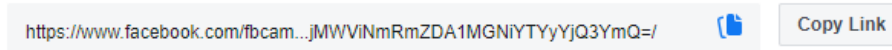
Test on your phone

Send a notification to the app to preview the effect on your phone.



Get a preview link

Anyone can use the preview link to open this effect in the app before it's been published. [Make new link.](#)



50 users remaining

Click on it will activate your camera. That should be a Facetime (front/selfie) camera for this effect.



Copy a “**Preview link**” and post in the forum for the assignment submission.

Note that this link is temporary and will end soon if you don't publish it. The publication is optional, and still free, for this assignment but it can take several days for the reviewing process and not all the requests will be approved. If you don't want to publish your work, just close it.