

Teachable Machine with Google

[Teachable Machine](#)

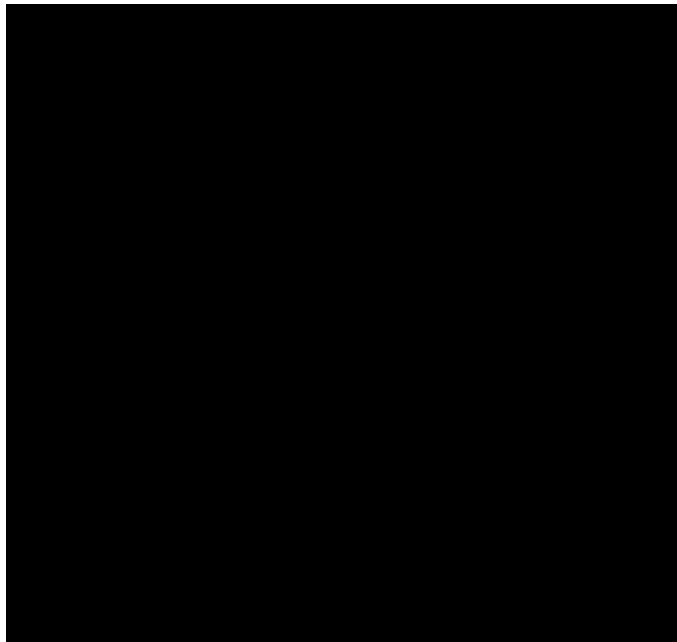
Teachable Machine

자신의 이미지, 사운드 및 포즈를
인식하도록 컴퓨터를 훈련시킵니다.

전문 지식이나 코딩 없이도 사이트, 앱
등에 대한 기계 학습 모델을 빠르고 쉽게
만들 수 있습니다.

visit the site ⇒

<https://teachablemachine.withgoogle.com/>



How do I use it?

1 Gather

컴퓨터에게 학습시키고자 하는
클래스나 범주로 자료를
수집하고 그룹화 하십시오.

[Tutorial: Gather samples](#)

2 Train

모델을 학습시킨 다음 즉시
테스트하여 새 자료를
올바르게 분류 할 수 있는지
확인하십시오.

[Tutorial: Train your model](#)

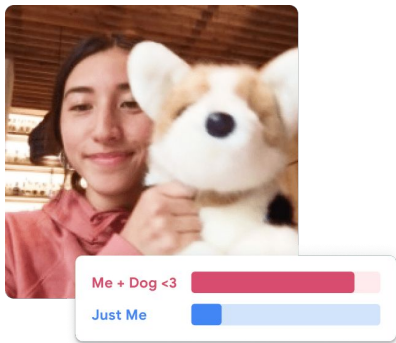
3 Export

사이트, 앱 등 프로젝트에 맞게
모델을 내 보냅니다. 모델을
다운로드하거나 온라인에서
무료로 호스팅 할 수 있습니다.

[Tutorial: Export your model](#)

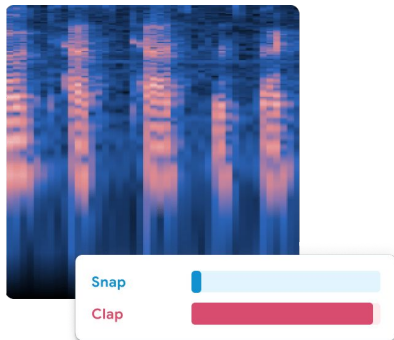
What can I use to teach it?

Images



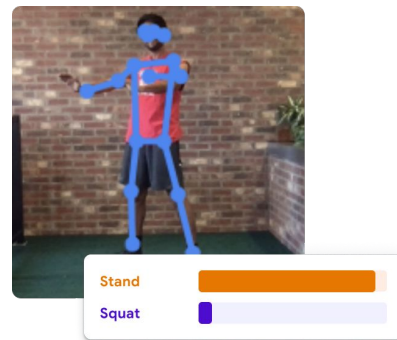
파일이나 웹캠을 사용하여 이미지를 분류하는 모델을 가르치십시오.

Sounds



짧은 소리 샘플을 녹음하여 오디오를 분류하는 모델을 가르치십시오.

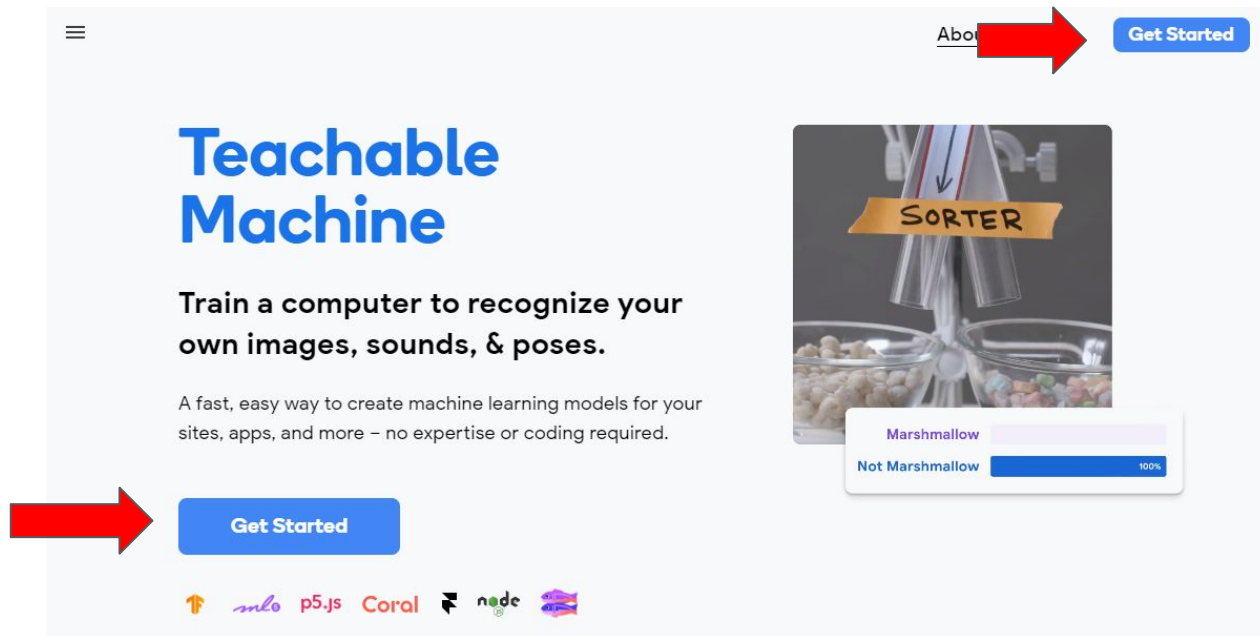
Poses



웹캠에서 파일 또는 눈에 띄는 포즈를 사용하여 신체 위치를 분류하는 모델을 가르칩니다.

How to start & train ...

1. Click “Get Started”



The screenshot shows the Teachable Machine website. A red arrow points to the 'Get Started' button in the top right corner, which is next to the 'About' link. Another red arrow points to the 'Get Started' button at the bottom center of the page. The main content area features the title 'Teachable Machine' in large blue letters, followed by the subtitle 'Train a computer to recognize your own images, sounds, & poses.' and a paragraph: 'A fast, easy way to create machine learning models for your sites, apps, and more – no expertise or coding required.' To the right of the text is a video player showing a cereal sorter with a yellow banner that says 'SORTER'. Below the video player is a progress bar showing 'Marshmallow' at 100% and 'Not Marshmallow' at 0%.

Teachable Machine

Train a computer to recognize your own images, sounds, & poses.

A fast, easy way to create machine learning models for your sites, apps, and more – no expertise or coding required.

Get Started

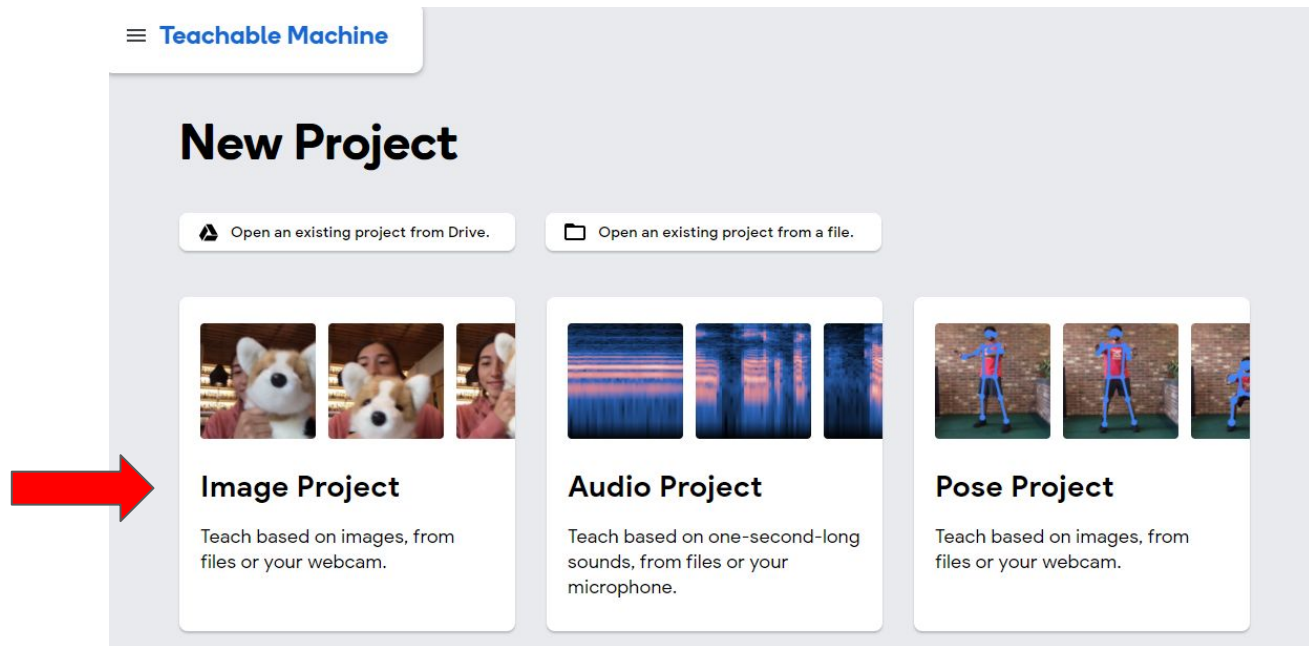
Marshmallow 100%

Not Marshmallow 0%

↑ ml5 p5.js Coral node

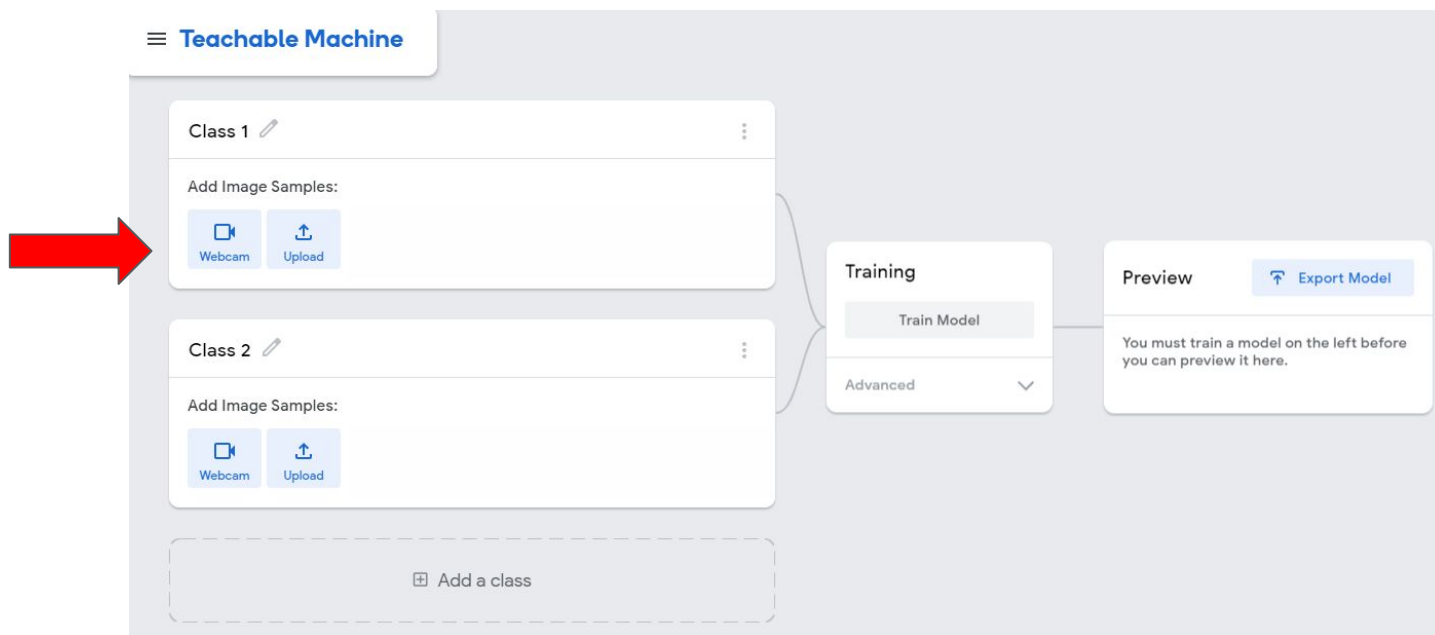
How to start & train ...

2. Click “Image Project”



How to start & train ...

3. Click “Webcam” or “Upload”

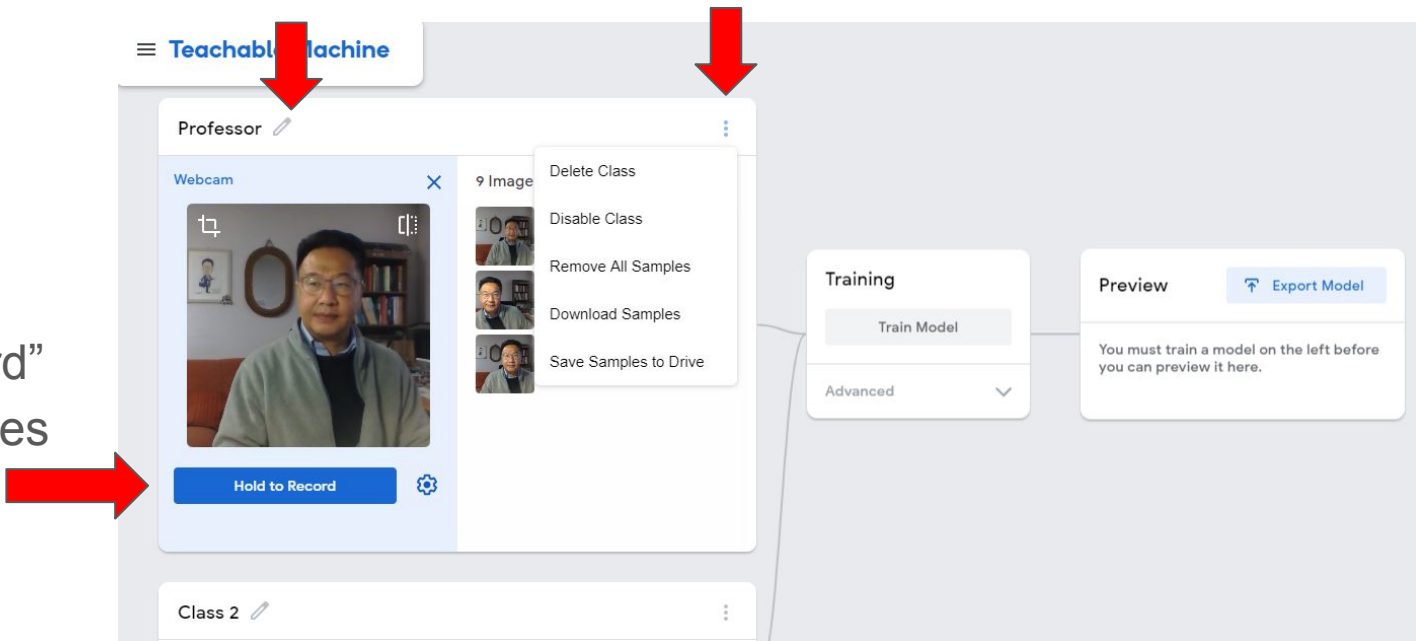


How to start & train ...

6. Click to give a class name

5. Click for extra menus

4. Click
“Hold to Record”
to record images



How to start & train ...

4.5.6. Do the same things for other image

The screenshot displays the Teachable Machine web application. At the top, the 'Teachable Machine' logo is visible. Below it, there are tabs for 'Webcam' and 'Upload'. The main interface is divided into two sections: 'Training' and 'Preview'.

Training Section:

- Dummy**: A label for the current training session.
- Webcam**: A live video feed showing a white mask with a face drawn on it. Below the feed is a blue button labeled 'Hold to Record' and a settings icon.
- 14 Image Samples**: A grid of 14 small images showing the mask from different angles, used for training the model.
- Train Model**: A blue button to initiate the training process.
- Advanced**: A dropdown menu for additional settings.

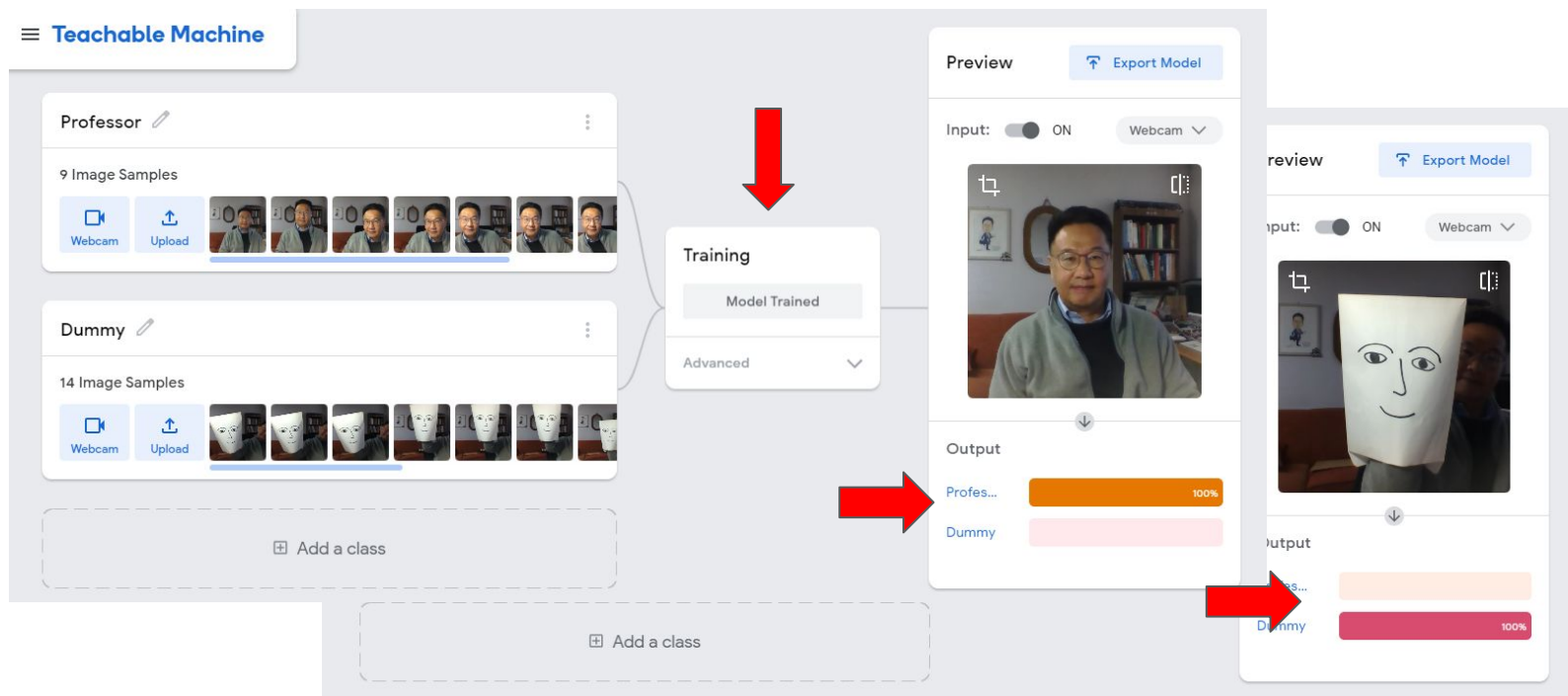
Preview Section:

- Export Model**: A blue button with a download icon to save the trained model.
- Text**: A message stating 'You must train a model on the left before you can preview it here.'

How to start & train ...

7. Click to train

8. test the Machine trained

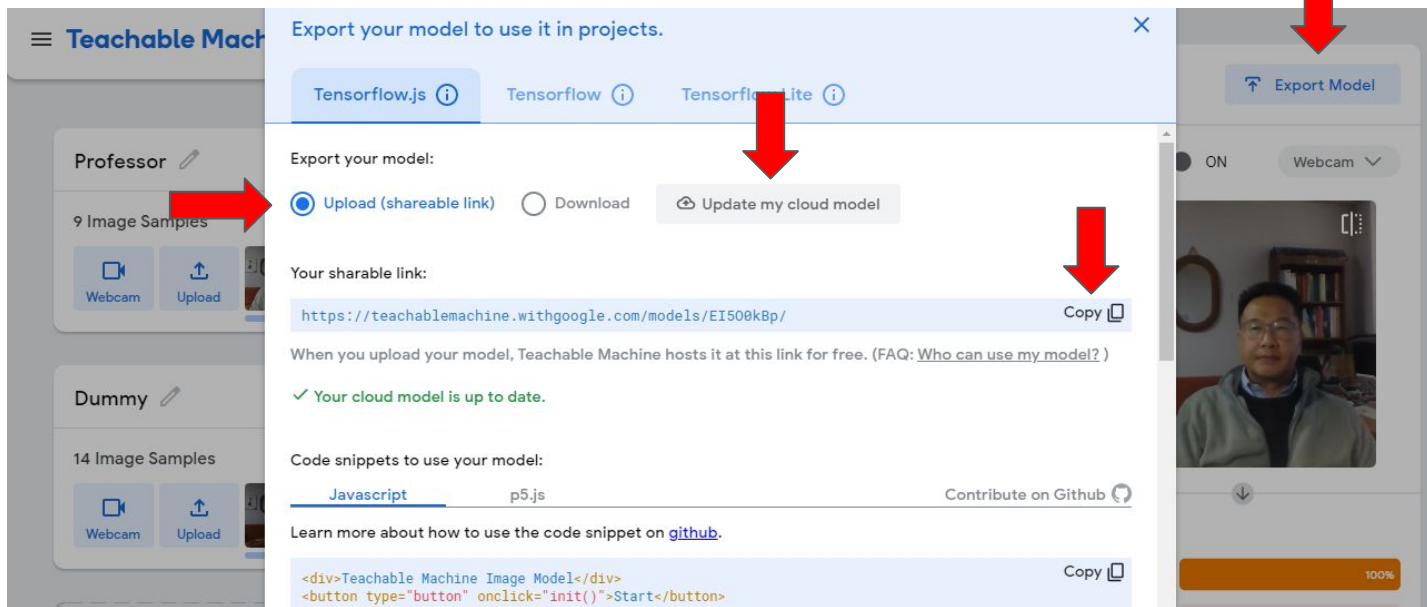


How to start & train ...

10. Click
“Upload (...)”
&
“Upload my ...”

11. 링크복사

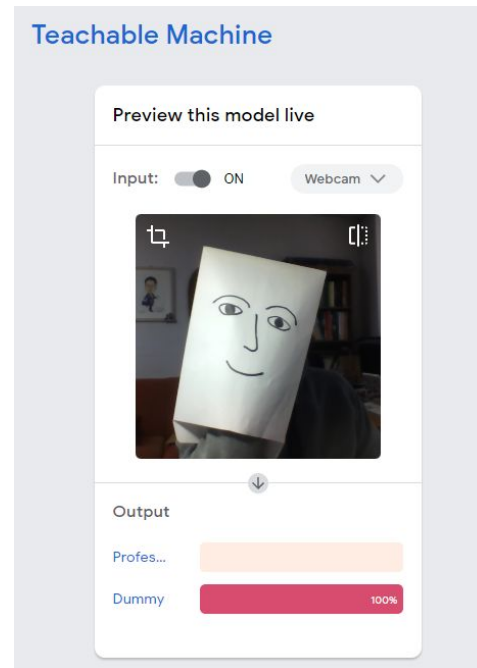
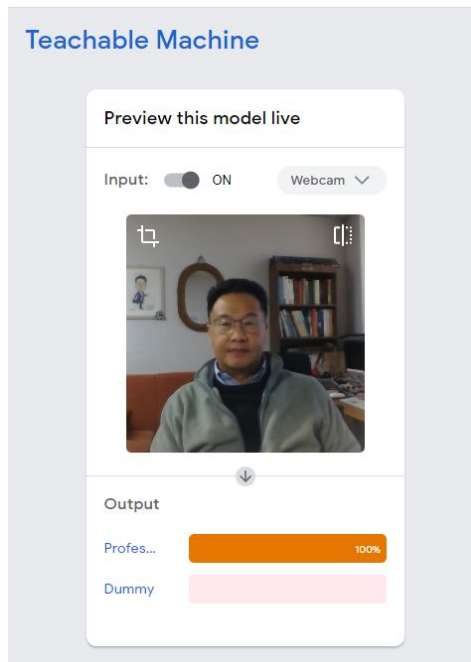
9. Click “Export Model”



How to start & train ...

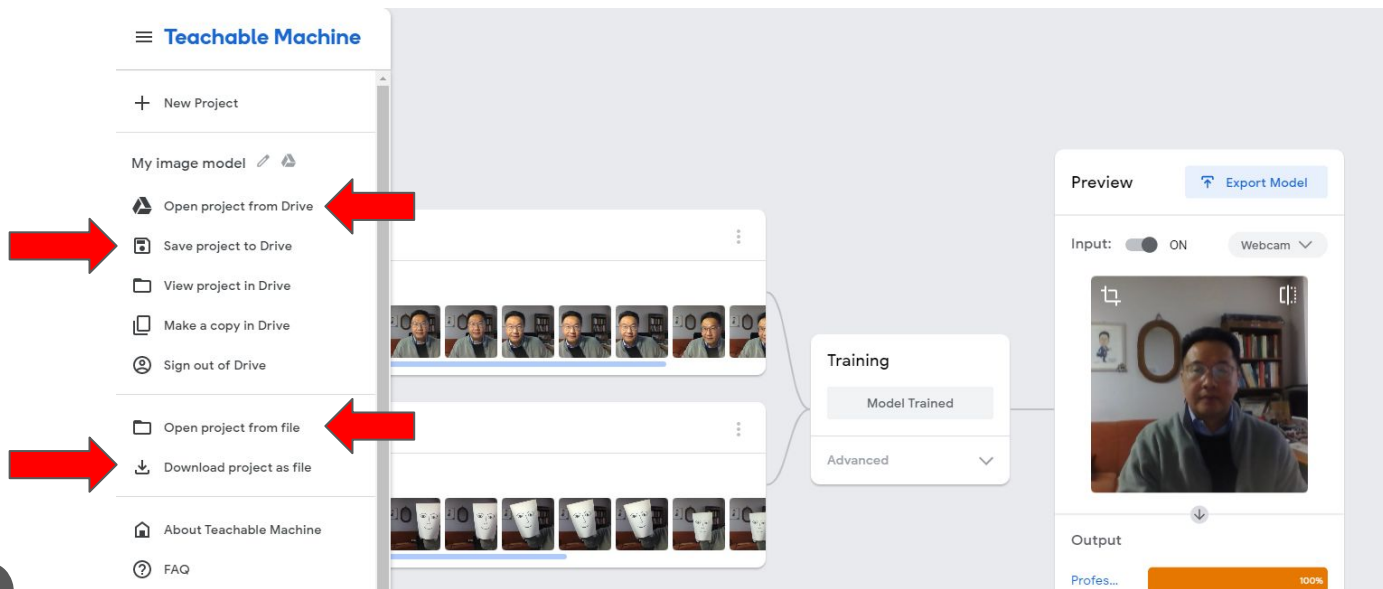
12. Open a tab and visit to the URL copied.

13. Test the result



How to start & train ...

15. 프로젝트 저장하기(구글 드라이브 or 컴퓨터) & 가져오기



The END....

[Option - 1]

내 컴퓨터에 index.html 만 가져와
작업하기

[Option-1] How to start & train ...

10. Click
“Upload (...)”
&
“Upload my ...”

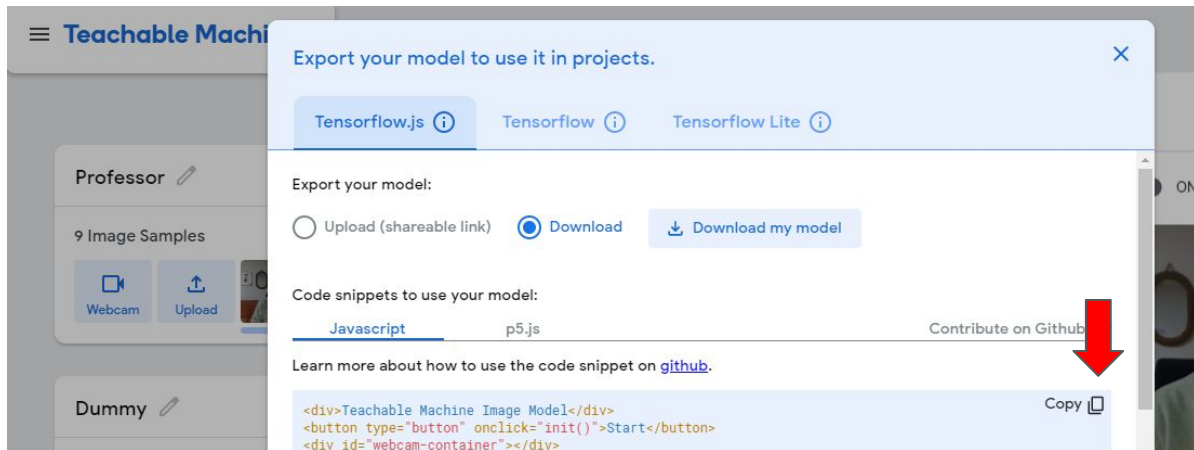
11. Javascript
파일을 복사

9. Click “Export Model”

The image shows the Teachable Machine interface. On the left, the 'Professor' model has '9 Image Samples' and buttons for 'Webcam' and 'Upload'. A red arrow points to the 'Upload' button. In the center, a modal titled 'Export your model to use it in projects.' is open, showing options for 'Tensorflow.js', 'Tensorflow', and 'Tensorflow Lite'. A red arrow points to 'Tensorflow.js'. Below, it says 'Export your model:' with options 'Upload (shareable link)' (selected), 'Download', and 'Update my cloud model'. A red arrow points to 'Upload (shareable link)'. Below that, it shows a 'Your sharable link:' with a URL and a 'Copy' button. A red arrow points to the 'Copy' button. At the bottom, it shows 'Code snippets to use your model:' with tabs for 'Javascript' and 'p5.js'. A red arrow points to the 'Javascript' tab. Below the tab, it shows a code snippet and a 'Copy' button. A red arrow points to the 'Copy' button. On the right, a mobile app interface shows a video feed and an 'Export Model' button. A red arrow points to the 'Export Model' button.

[Option-1] How to start & train ...

12. 텍스트 편집기 (메모장 또는 [Sublime Text](#)) 실행 후,
복사한 **Javascript** 파일을 넣고 “index.html” 이란 파일명으로 저장



[Option-2] How to start & train ...

13. index.html 을 Chrome 브라우저로 열기 (i.e. drag & drop)

14. Test the result

Teachable Machine Image Model

Start



Professor: 1.00

Dummy: 0.00

Teachable Machine Image Model

Start



Professor: 0.00

Dummy: 1.00

[Option - 2]

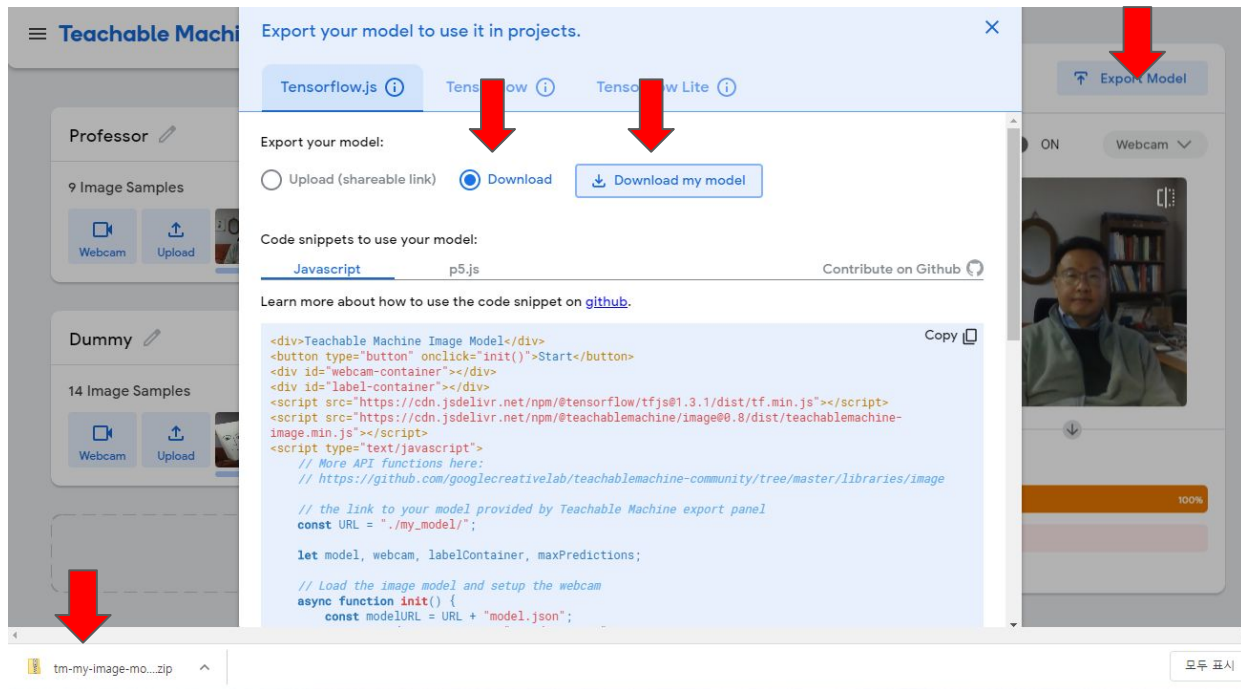
내 컴퓨터에 index.html 과 훈련된
신경망 모델을 가져와 작업하기

[Option-2] How to start & train ...

9. Click “Export Model”

10. Click “Download” & “Download my model”

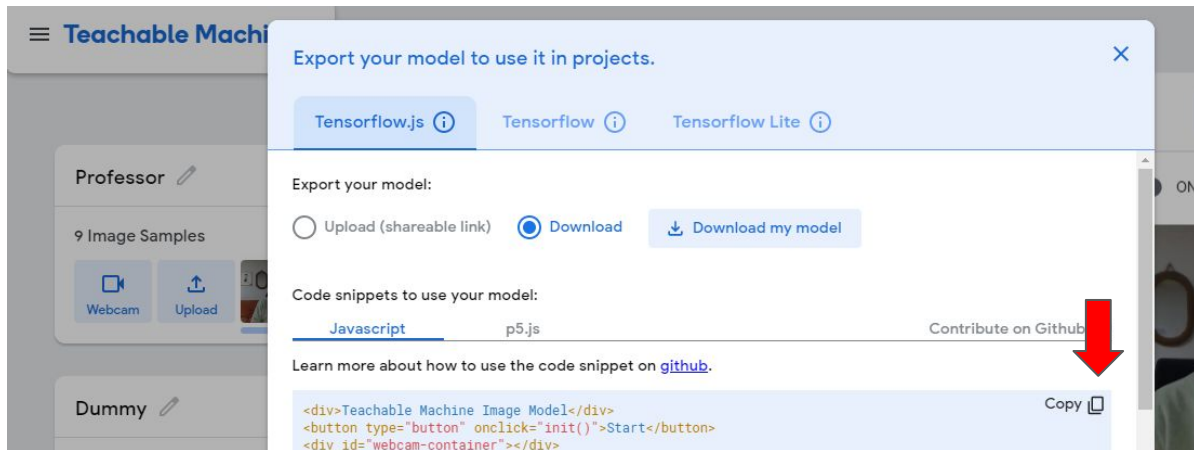
11. 압축풀기 the downloaded file



[Option-2] How to start & train ...

12. 압축을 푼 파일들을 (metadata.json, model.json, weights.bin) 새 폴더 (e.g.TM-test) 안에 my_model 이란 이름의 폴더를 만들어 그 안에 넣는다.

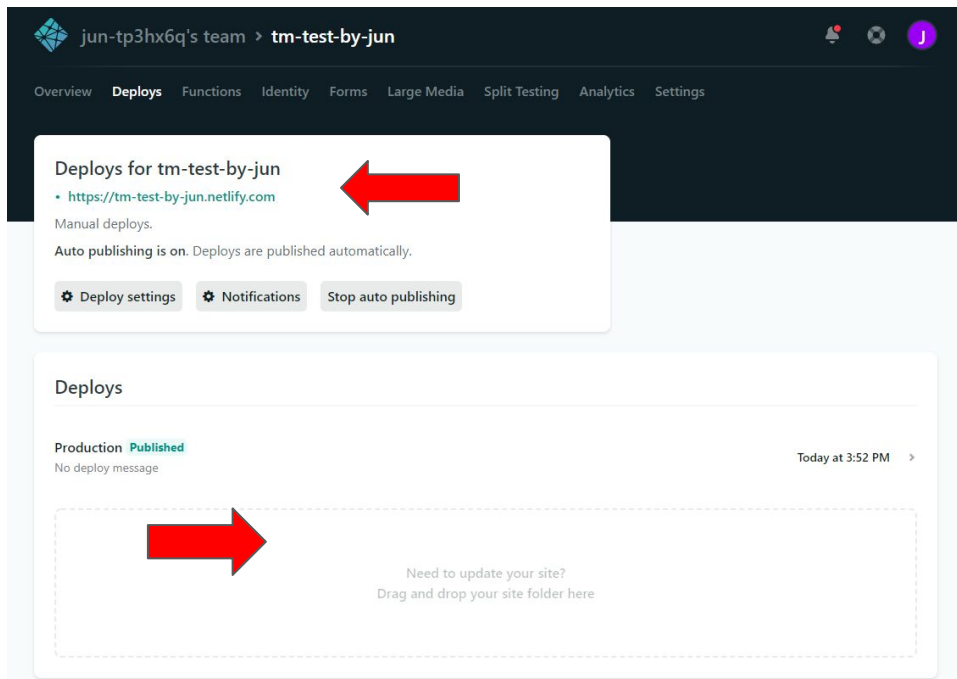
13. 텍스트 편집기 (메모장 또는 [Sublime Text](#)) 실행 후, 복사한 Javascript 파일을 넣고 “index.html” 이란 파일명으로 새 폴더(e.g. TM-test) 에 저장



[Option-3] How to start & train ...

15. Deploy 된 사이트를 Click !!

14. <https://www.netlify.com/>에
가입과 로그인 후
새 폴더 “TM-test”를
drag-&-drop 하고



[Option for PC] How to start & train ...

15. Test the result

Teachable Machine Image Model

Start



Professor: 1.00
Dummy: 0.00

Teachable Machine Image Model

Start



Professor: 0.00
Dummy: 1.00

NEXT

Self Practices ...

1. Audio project

- 최소한 3가지 소리를 훈련시켜 동작 여부를 확인하세요
- 예: 박수, 휘파람, 라라라~ 등.

2. Pose Project

- 최소한 3가지 포즈를 훈련시켜 동작 여부를 확인하세요
- 예: 차렷자세, 양손 옆으로 들기, 구부러 앉기 등