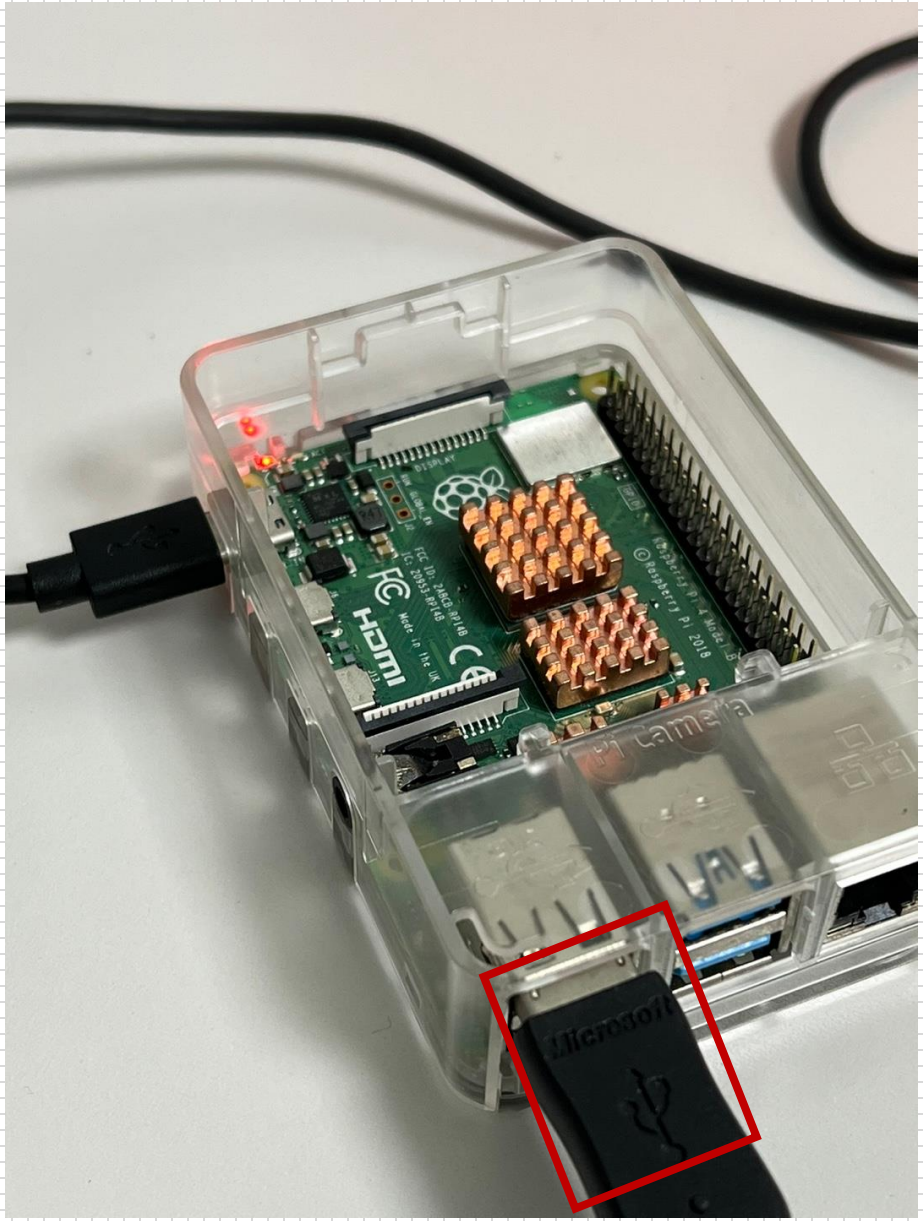
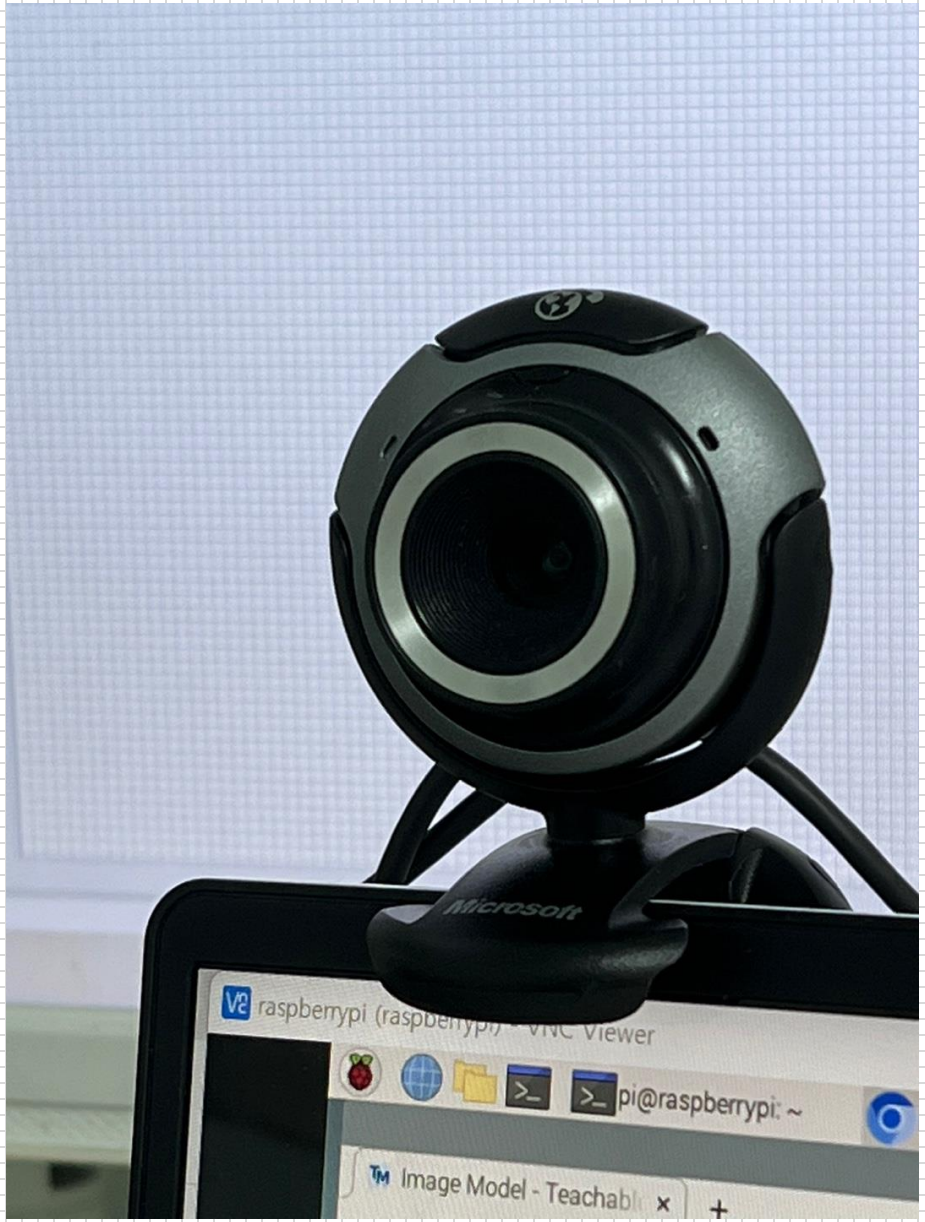
라즈베리파이 연결





웹캠 연결

https://iotmaker.kr/iotbook-install-raspi-node-red/

https://reddb.tistory.com/123

1. Raspberry pi 안에 Node-Red 설치하기

1). 최신버전으로 업데이트

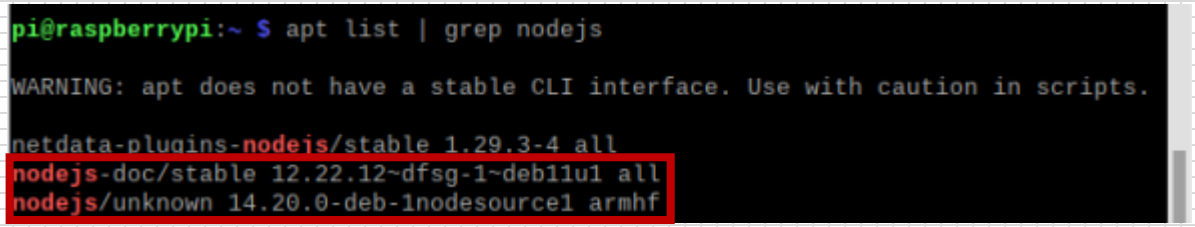
sudo apt update

sudo apt upgrade

2). Node.js 설치

sudo curl -sL https://deb.nodesource.com/setup_16.x | sudo -E bash

apt list | grep nodejs



sudo apt-get install nodejs

node -v

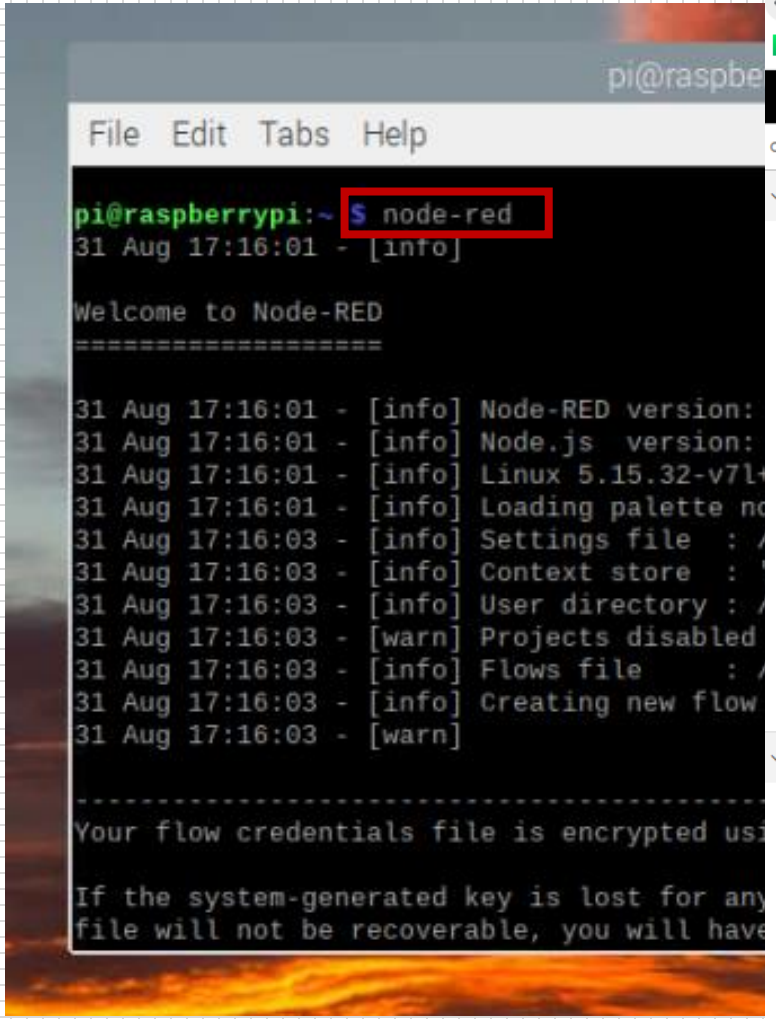
3). Node-red 설치

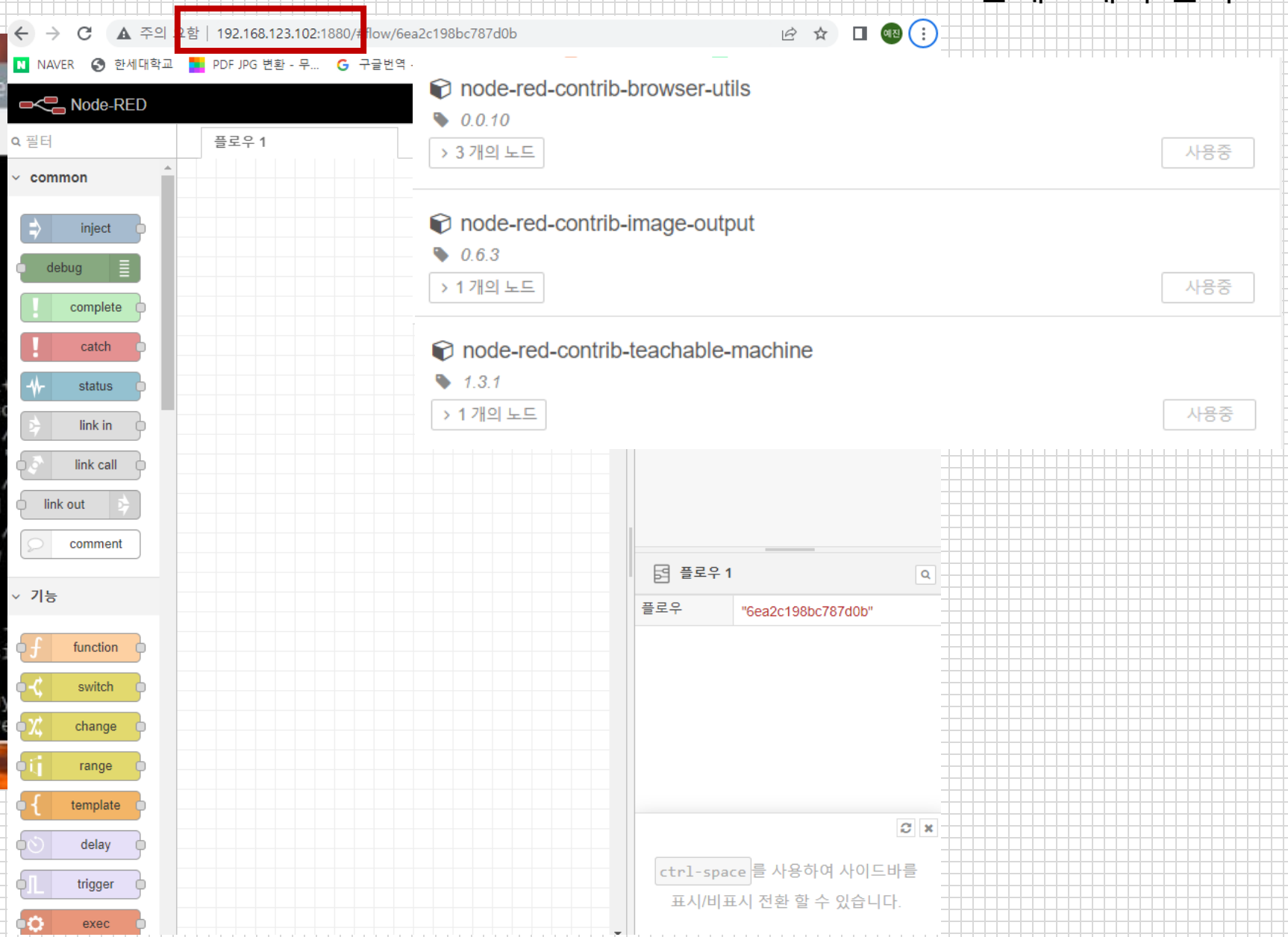
bash <(curl -sL https://raw.githubusercontent.com/node-red/linux-installers/master/deb/update-nodejs-and-nodered)

node-red-start

2. node-red-start 후

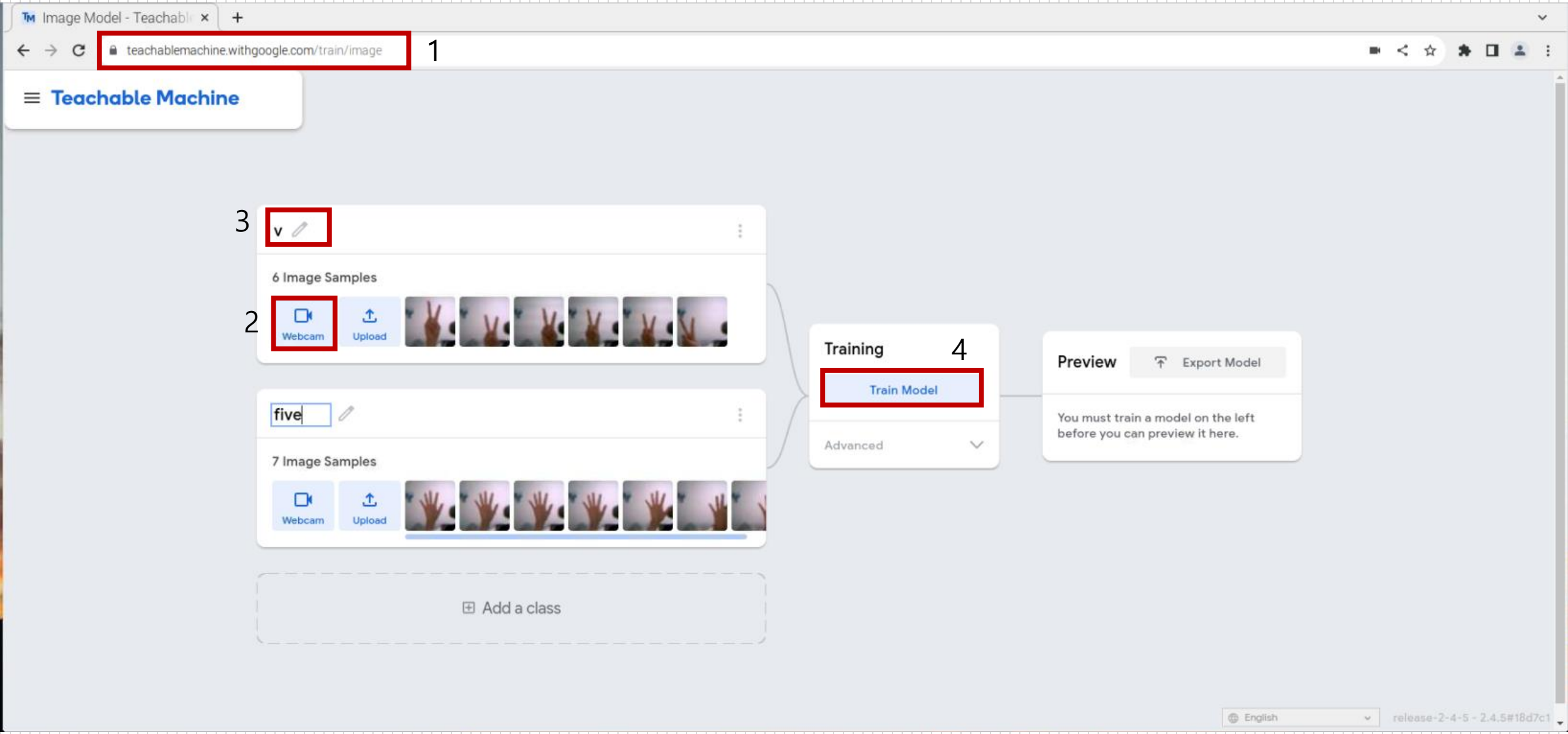
팔레트에서 설치



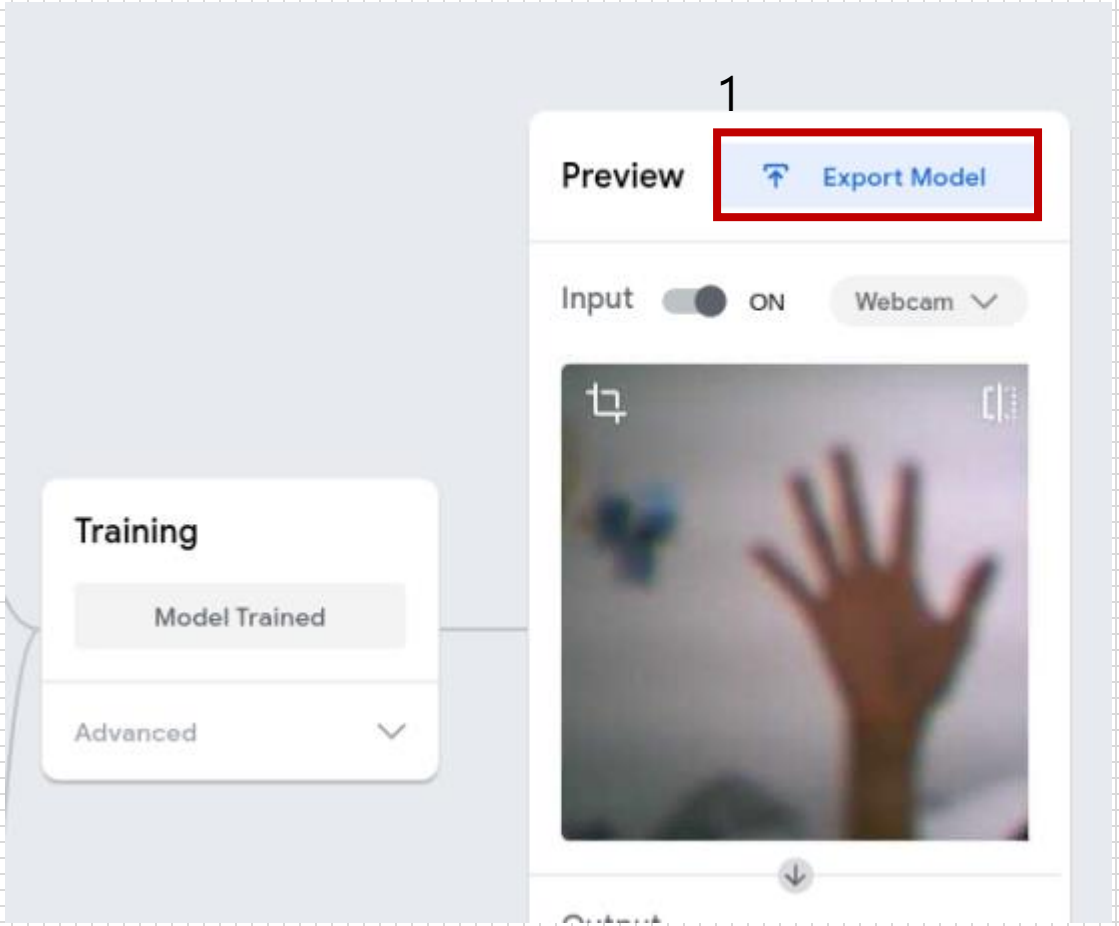


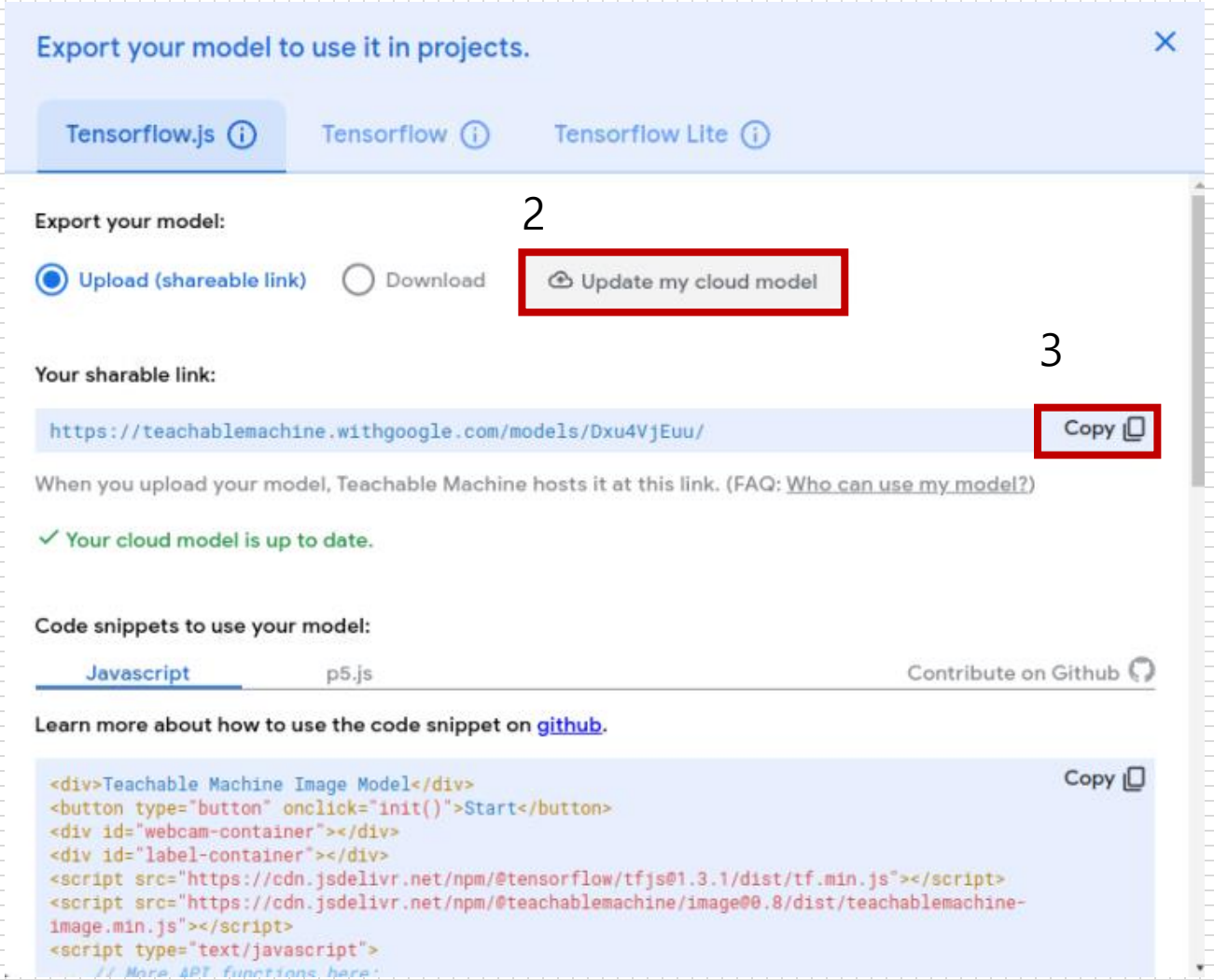
3. 티처블 접속 후 이미지 등록 -> Training하기

chablemachine.withgoogle.com/train/image

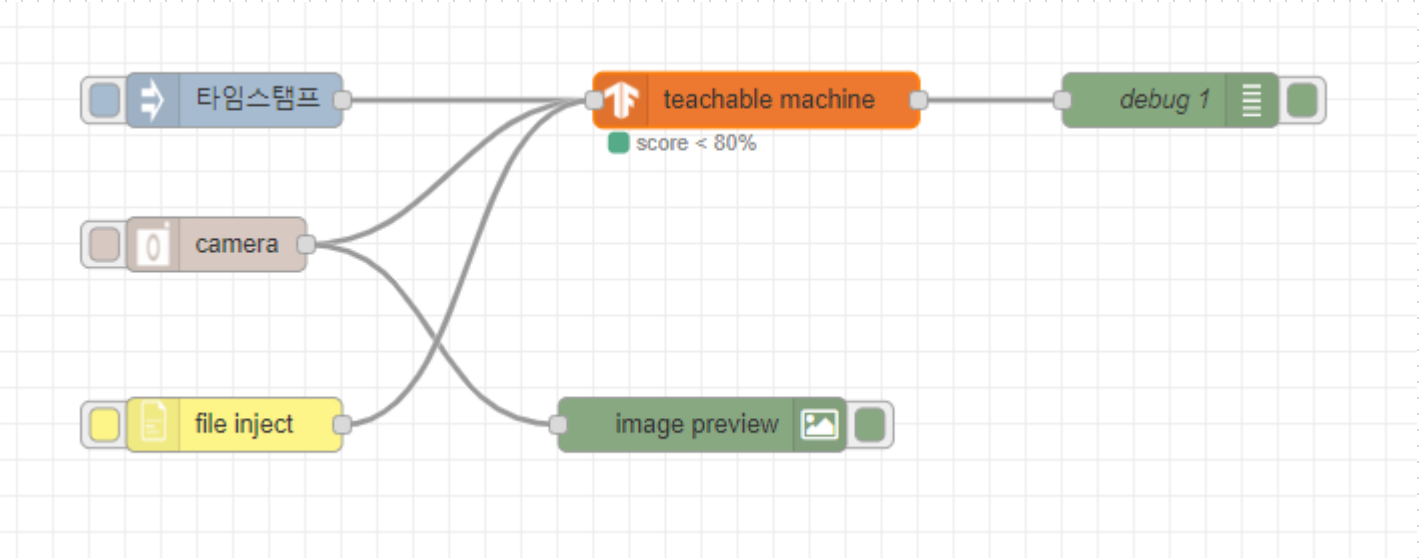


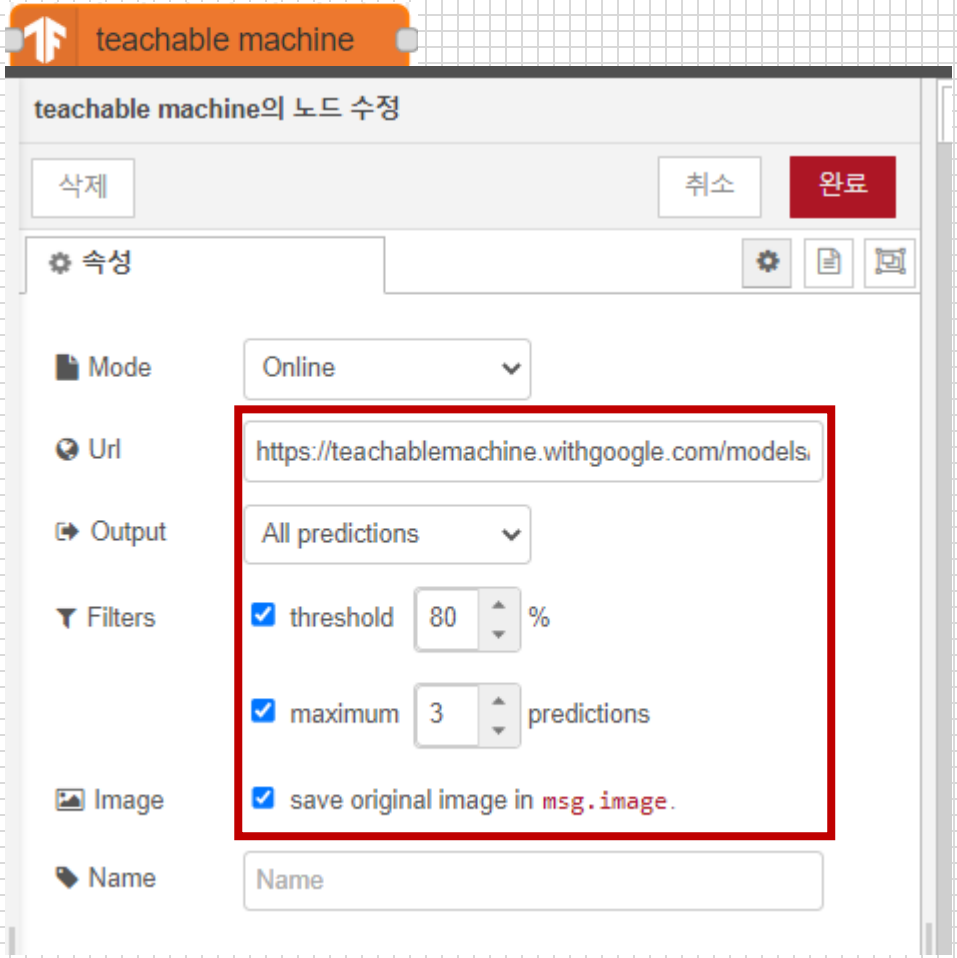
4. 트레이닝 후 'Export Model' 후 클라우드 모델 업데이트 -> URL 복사



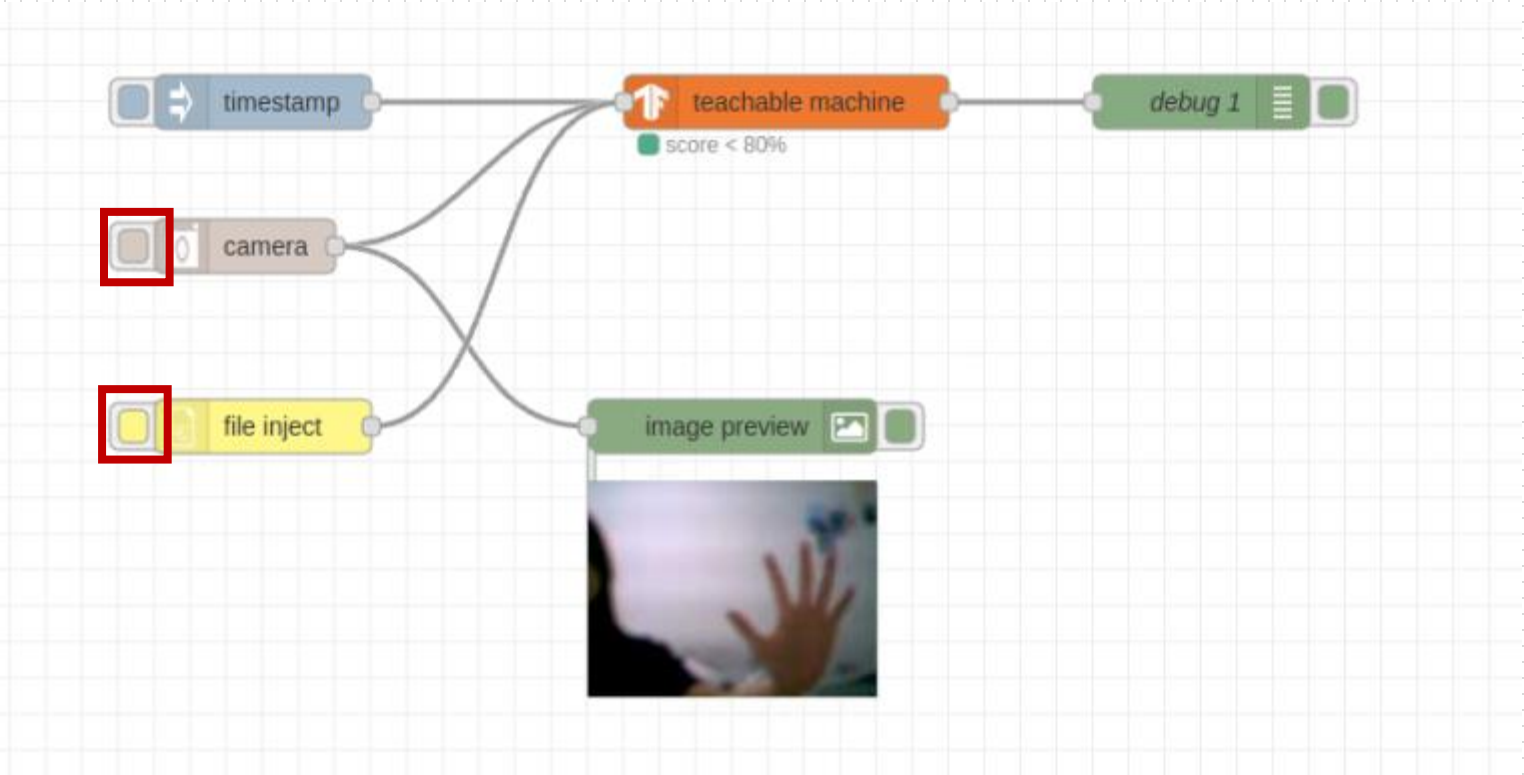


5. node-red 접속 후 아래와 같이 생성

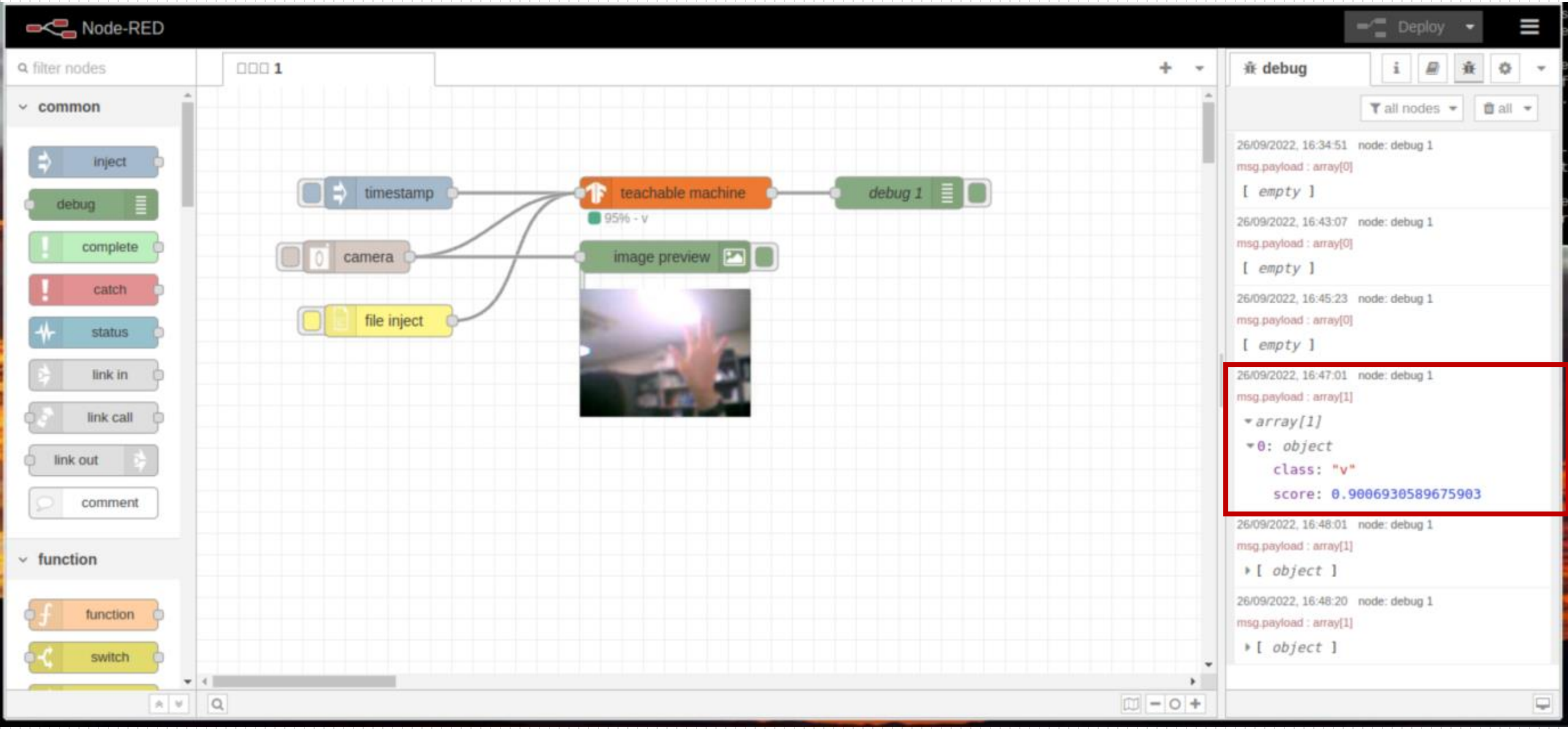




6. 카메라, 파일 클릭하여 작동 확인



6. 카메라, 파일 클릭하여 작동 확인



오류 사항

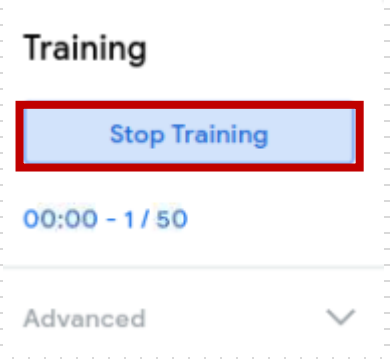
https://reddb.tistory.com/123

https://minikupa-dev.tistory.com/87

https://www.npmjs.com/package/node-red-contrib-browser-utils

오류 - 1 : 티처블머신에서 트레이닝 10분 넘게 지연되며 1/50에서 넘어가지 않음.

해결 방안 : Training 버튼에 커서를 올려 stop Training 누른 후 학습이 완료 됨.
라즈베리파이가 딜레이가 있어 지연된 것으로 생각함.



->재연 화면

오류 - 2 : 카메라 버튼 클릭 안 됨

해결 방안 : 터미널에서 node.js 제거 후 최신버전으로 재설치 / 초기에는 14버전

1. sudo apt-get remove nodejs
2. sudo curl -sL https://deb.nodesource.com/setup_16.x | sudo -E bash
3. node-red -v로 버전 확인
4. http://127.0.0.1:1880 으로 접속