# Raspberry Pi

## First steps

* sudo apt-get update -y && sudo apt-get upgrade -y
* if filemanager closes automatically after upgrade: **sudo apt-get install --reinstall pcmanfm -y**
* enable SSH, enable Camera Module in Raspi Config
* change pi user password: **PiAdmin**
* change hostname: **baslive** – for accessing via SSH

## Commands

* Shutdown: sudo shutdown -h now
* Check the RAM usage: free -h

## Remote Desktop

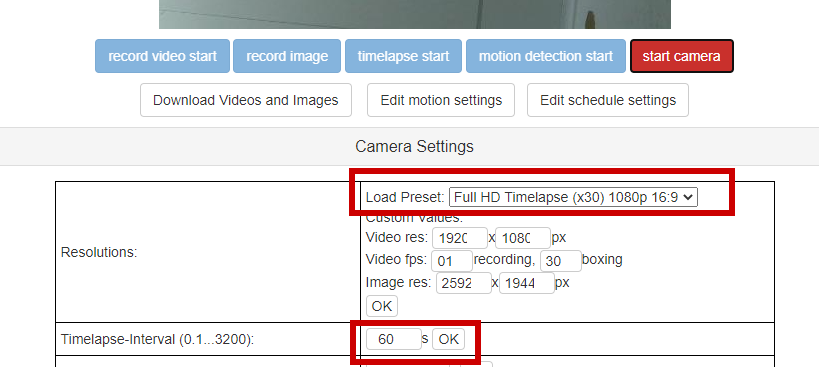
* sudo apt-get remove xrdp vnc4server tightvncserver
* sudo apt-get install tightvncserver
* sudo apt-get install xrdp

# PROJECT: 27.05.2020: RPi-Cam-Web-Interface

## Installation

* git clone https://github.com/silvanmelchior/RPi\_Cam\_Web\_Interface.git
* cd RPi\_Cam\_Web\_Interface
* cd bin
* mv raspimjpeg raspimjpeg-buster
* mv raspimjpeg-stretch raspimjpeg
* cd ..
* ./install.sh

## Timelapse settings



## Photo using RPi-web-cam



# PROJECT: 02.06.2020: TensorFlow Lite object detection on Raspberry PI

## Installation

* Update the Raspberry Pi

sudo apt-get update

sudo apt-get dist-upgrade

* Download this repository and create virtual environment

git clone <https://github.com/EdjeElectronics/TensorFlow-Lite-Object-Detection-on-Android-and-Raspberry-Pi.git>

mv TensorFlow-Lite-Object-Detection-on-Android-and-Raspberry-Pi tflite1

cd tflite1

sudo pip3 install virtualenv

python3 -m venv tflite1-env

source tflite1-env/bin/activate

* Install TensorFlow and OpenCV

bash get\_pi\_requirements.sh

* Set up TensorFlow Lite detection model

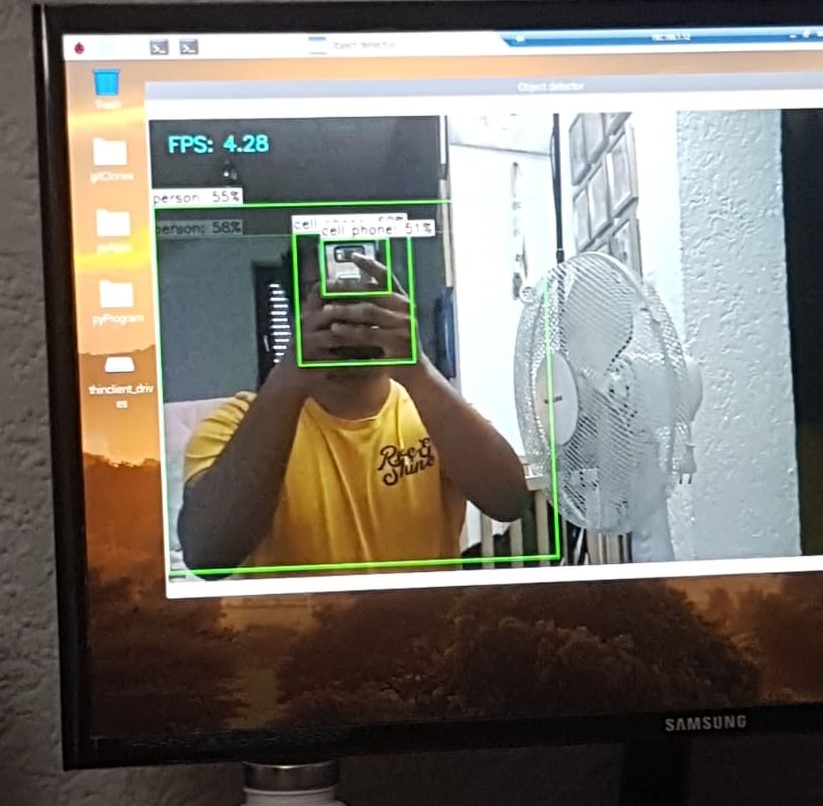
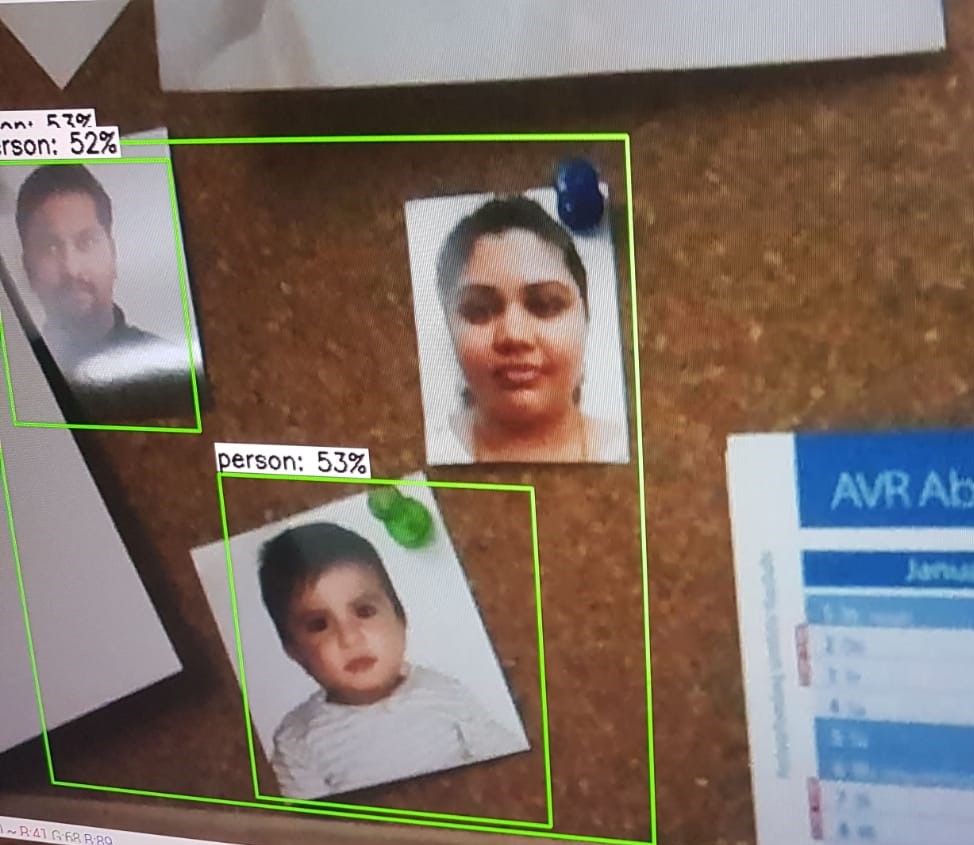
wget <https://storage.googleapis.com/download.tensorflow.org/models/tflite/coco_ssd_mobilenet_v1_1.0_quant_2018_06_29.zip>

unzip coco\_ssd\_mobilenet\_v1\_1.0\_quant\_2018\_06\_29.zip -d Sample\_TFLite\_model

* Run TensorFlow Lite model

python TFLite\_detection\_webcam.py --modeldir=Sample\_TFLite\_model

## Detection using WebCam



## Detection using static images

