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I was wondering if there would be a cool way to implement the open-source software library for machine learning and artificial intelligence, TensorFlow. The main task I would like to use TensorFlow for Image Tracking. I had two main ideas, the first is a fall detection function that will detect somebody when they fall, this would lead to an alert being sent to a broker and then to a user's phone. This could work in a context of an older person who may not be bad enough for a nursing home, but still needs extra attention to prevent accidents.

The second scenario is a security camera, the camera will detect whoever is at the door. Depending on the time of day it will send the information to the user through an MQTT broker. An idea would be that if the camera detects an unknown person, the camera will capture an image or recording and send the data to an MQTT. TensorFlow has released a version of their open-source software that is a lightweight version, which is designed to run on limited computing resources such as mobile phones or IOT devices (Raspberry Pi).

Tools, Technologies and Equipment

TensorFlow Lite

Raspberry Pi

Raspberry Pi Camera Board v2

Python

MQTT Broker(InfluxDB)

Project Repository

<https://github.com/dlaw4608/Fall-Detect-IOT>