**AIM**

The aim of the project is to count number of people using a camera connected with raspberry pi within the visible range.

**Components**

1. Ubuntu core on raspberry pi
2. EdgeXfoundry
3. Python code for camera

**EdgeXFoundry & other Installations**

EdgeXFoundry is installed using package manager called **Snap (Snapcraft).**

Snap of EdgeXFoundry has all the services of Edgexfoundry except **"Device Rest"** service.

Snap installation

Installed using atp

$ sudo apt update  
$ sudo apt install snapd

<https://snapcraft.io/docs/installing-snap-on-ubuntu>

EdgeXFondry snap installation

Installed using snap (2.1)

$ sudo snap install edgexfoundry

<https://docs.edgexfoundry.org/2.0/getting-started/Ch-GettingStartedSnapUsers/>

<https://snapcraft.io/edgexfoundry>

EdgeX Device Rest snap installation

Installed using snap

$ sudo snap install edgex-device-rest --channel=2.0/stable

(latest/edge 2.2.0-dev.2)

<https://docs.edgexfoundry.org/2.0/getting-started/Ch-GettingStartedSnapUsers/>

<https://snapcraft.io/edgex-device-rest>

<https://github.com/edgexfoundry/device-rest-go/blob/main/snap/README.md>

Classic snap installation

Installed using snap

$ sudo snap install classic --beta

<https://snapcraft.io/classic>

**How to check edgex services**

Services installed with Edgexfoundry and Device-rest snaps automatically starts.

$ sudo snap list  
$ sudo snap services

[Running Enterprise-Grade Edge Applications with EdgeX on Ubuntu Core](https://www.youtube.com/watch?v=jMu8UubLfNE&t=2322s)

**Checking services with ping.py**

ping.py is a python program to check status of services by sending get requests.

$ python3 ping.py

**How to run camera code**

$ sudo classic  
$ cd camcode

$ . env-1/bin/activate

$ cd python3.9 app.py

**Snap commands**

List all snaps

$ sudo snap list

List all snaps services

$ sudo snap services

Fetching info of a snap

$ sudo snap info *‘snap-name’*

Install a snap

$ sudo snap install *‘snap-name’* –channel=2.0 //(channel number)

Enable a snap service

$ sudo snap start --enable *‘snap-name’.‘service-name’*

Uninstall a snap

$ sudo snap remove *‘snap-name’*

Any disabled services can be enabled and started up using snap set:  
$ sudo snap set edgexfoundry support-notifications=on

To turn a service off (thereby disabling and immediately stopping it) set the service to off:  
$ sudo snap set edgexfoundry support-notifications=off

**Setting up edgex-app-service-configurable**

Installation

$ snap info edgex-app-service-configurable

$ sudo snap install edgex-app-service-configurable

Selecting http-export profile

$ sudo snap set edgex-app-service-configurable profile=http-export

The configuration.toml files are found in the snap’s writable are  
var/snap/edgex-app-service-configurable/current/config/res/

[https://github.com/edgexfoundry/app-service-configurable/tree/main/snap#edgex-foundry-app-service-configurable-snap](https://github.com/edgexfoundry/app-service-configurable/tree/main/snap%23edgex-foundry-app-service-configurable-snap)