



CAMSVR-2 User Guide

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User Guide for CAMSVR-2
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I. Hardware Description

Table 1 is the hardware definition of CAMSVR-2.

Table 1. Hardware Description

Device	Description	Note
1. Camera	1.1 Resolution 320x240;	
2. Connection	2.1 RJ-45 Interface (Cat5e Ethernet Cable)	
3. Power Adapter	3.1 Input Power: DC 12V 2A	

The hardware description is illustrated in Figure 1.



Figure 1. The hardware definition.



II. Setup CAMSVR-2

2.1. Connect CAMSVR-2 To Host PC

Connect a USB cable to a host PC; Connect Ethernet cable from CAMSVR-2 to the RJ-45 board; Connect a power supply cable to CAMSVR-2, the AI program will start on CAMSVR-2 automatically;

2.2. Check USB Interface

2.2.1 Open a terminal window

2.2.2 Perform below a command to check USB Interface

```
ls /dev/tty*
```

* Please check ttyUSB*

2.2.3 Change mode of USB interface

```
sudo chmod 777 /dev/ttyUSB0
```

2.3. Change USB Port Settings

2.3.1 Open camsvr-2/camsvr/settings.py

2.3.2 Change USB_PORT setting to same as 2.2.2

```
USB_PORT = '/dev/ttyUSB0'
```

```
base) yusuke@yusuke-GL504GW:~/Downloads$ ls /dev/tty*
/dev/tty      /dev/tty23  /dev/tty39  /dev/tty54  /dev/ttyS10 /dev/ttyS26
/dev/tty0     /dev/tty24  /dev/tty4   /dev/tty55  /dev/ttyS11 /dev/ttyS27
/dev/tty1     /dev/tty25  /dev/tty40  /dev/tty56  /dev/ttyS12 /dev/ttyS28
/dev/tty10    /dev/tty26  /dev/tty41  /dev/tty57  /dev/ttyS13 /dev/ttyS29
/dev/tty11    /dev/tty27  /dev/tty42  /dev/tty58  /dev/ttyS14 /dev/ttyS3
/dev/tty12    /dev/tty28  /dev/tty43  /dev/tty59  /dev/ttyS15 /dev/ttyS30
/dev/tty13    /dev/tty29  /dev/tty44  /dev/tty6   /dev/ttyS16 /dev/ttyS31
/dev/tty14    /dev/tty3   /dev/tty45  /dev/tty60  /dev/ttyS17 /dev/ttyS4
/dev/tty15    /dev/tty30  /dev/tty46  /dev/tty61  /dev/ttyS18 /dev/ttyS5
/dev/tty16    /dev/tty31  /dev/tty47  /dev/tty62  /dev/ttyS19 /dev/ttyS6
/dev/tty17    /dev/tty32  /dev/tty48  /dev/tty63  /dev/ttyS2  /dev/ttyS7
/dev/tty18    /dev/tty33  /dev/tty49  /dev/tty7   /dev/ttyS20 /dev/ttyS8
/dev/tty19    /dev/tty34  /dev/tty5   /dev/tty8   /dev/ttyS21 /dev/ttyS9
/dev/tty2     /dev/tty35  /dev/tty50  /dev/tty9   /dev/ttyS22 /dev/ttyUSB0
/dev/tty20    /dev/tty36  /dev/tty51  /dev/ttyprintk /dev/ttyS23 /dev/ttyUSB1
/dev/tty21    /dev/tty37  /dev/tty52  /dev/ttyS0  /dev/ttyS24 /dev/ttyUSB3
/dev/tty22    /dev/tty38  /dev/tty53  /dev/ttyS1  /dev/ttyS25
```



III. Operating Guide

3.1. Start Web Server

3.1.1 Move to the web server directory

Perform below command;

```
cd camsvr-2
```

3.2.2 Start Web Server

For running the server, perform the following command;

```
python3 manage.py runserver 0.0.0.0:8080
```

The server will start running.



3.2. Access to Web User Interface

3.2.1 Access to Web User Interface

1. Start your browser(Chromium), and enter <http://127.0.0.1:8080> then hit a enter/return key, you should be directed to the starting page. See Figure 3.2.1

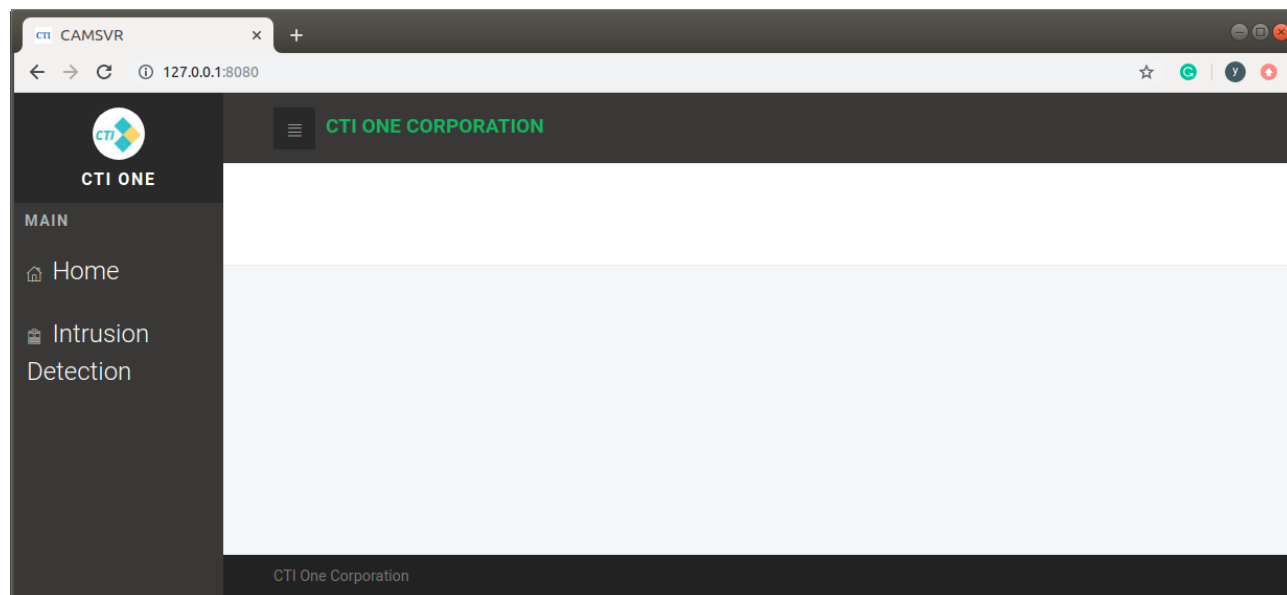


Figure 3.2.1 Web Server and UI Interface.

3.3. Intrusion Detection

3.3.1 Intrusion Detection

1. Click Intrusion Detection in the side menu, it will show the window of Intrusion Detection as Figure 3.3.1;

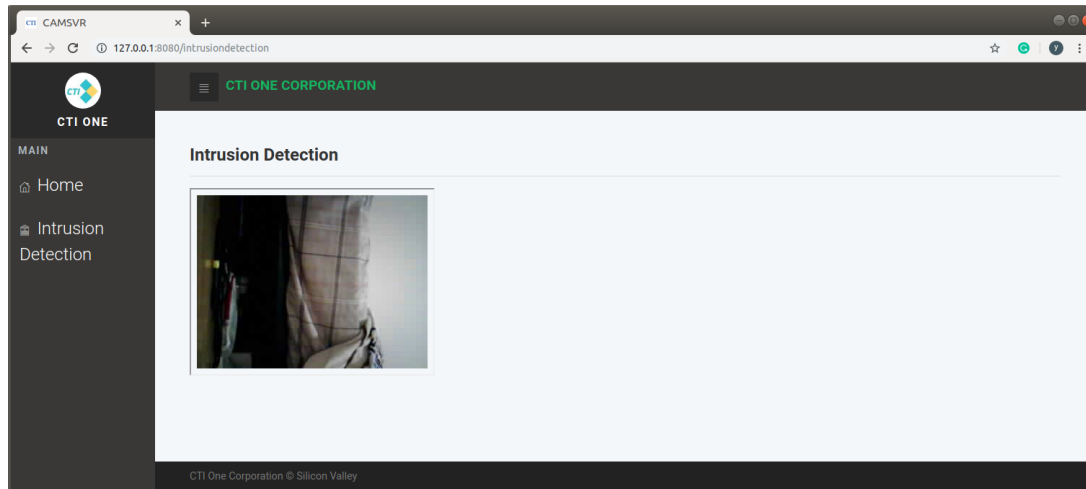


Figure 3.3.1 The window of Intrusion Detection

3.3.2 Draw a rectangle

1. In the window of Intrusion Detection, click any 2 points to draw rectangle (Not do dragging), a rectangle in green line will show as Figure 3.3.2; (Current version Web Server does NOT show a rectangle and change picture)

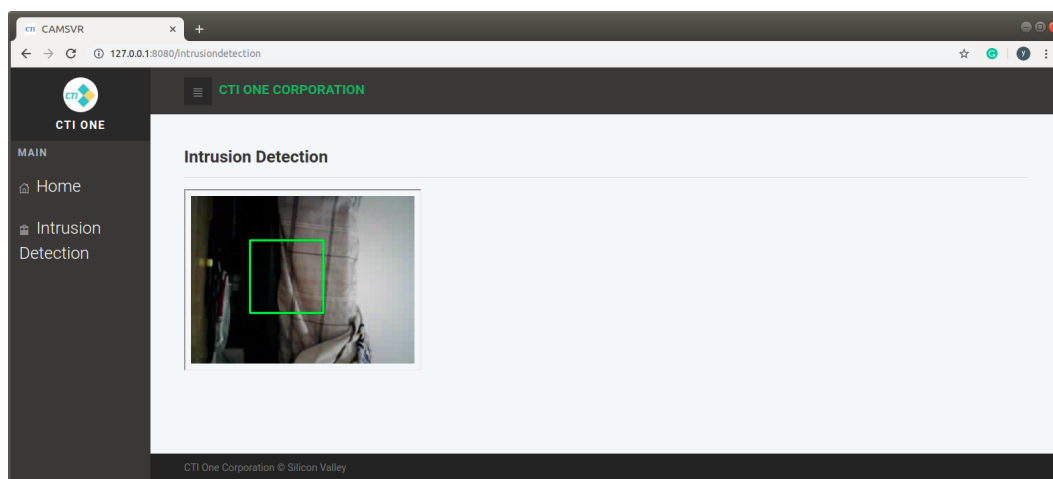


Figure 3.3.2 The rectangle in the window of Intrusion Detection

3.3.3 Detect Illegal Intrusion

1. When Illegal Intrusion is detected, The system will display a detected frame as Figure 3.3.3;

(Current version Web Server shows a previous frame that is sent by CAMSVR-2)

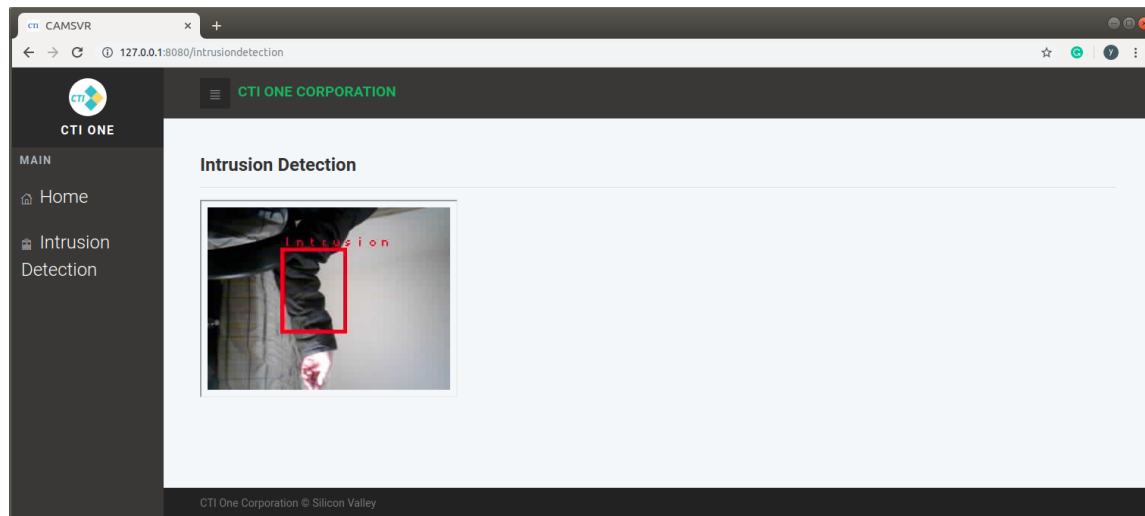


Figure 3.3.3 Detected Frame



Appendix A. Software List

Name	Version
Ubuntu	16.04
Python	3.5.2
Chromium	53.0.2785.143

Appendix B. Python Package List

Name	Version	Name	Version
Django	2.1.2	numpy	1.15.2
OpenCV	3.4.2.16	goto-statement	1.2
pyserial	3.4		

(END)