

Axinte Cristian Tiberius - 1405B

## Secure IoT Ecosystem

Linux & RPi

RPi Camera

<https://www.raspberrypi.org/documentation/hardware/camera/README.md>

<https://www.raspberrypi.org/documentation/raspbian/applications/camera.md>

<https://www.raspberrypi.org/documentation/usage/camera/raspicam/README.md>

<https://raspberrypi.stackexchange.com/questions/23182/how-to-stream-video-from-raspberry-pi-camera-and-watch-it-live>

**Linux manual**

<https://linux.die.net/man/>

VLC driver

<https://web.archive.org/web/20151012014829/http://www.videolan.org:80/doc/streaming-howto/en/ch03.html>

V4L driver

<https://www.ics.com/blog/raspberry-pi-camera-module#.VJFhbyvF-b8>

**RPi Cam Web Interface**

<https://elinux.org/RPi-Cam-Web-Interface>

<https://quavoce.wordpress.com/2017/10/25/how-to-make-a-59-fully-featured-raspberry-pi-home-security-camera-newbie-guide/>

Stream on YouTube & Facebook

<https://www.digikey.com/en/maker/blogs/streaming-live-to-youtube-and-facebook-using-raspberry-pi-camera>

RPi Static IP Address Tutorial

<http://raspberrypituts.com/raspberry-pi-static-ip-address-simple-tutorial/>

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## **ECC**

[https://en.wikipedia.org/wiki/Elliptic-curve\\_cryptography](https://en.wikipedia.org/wiki/Elliptic-curve_cryptography)

Elliptic Curve

[https://en.wikipedia.org/wiki/Elliptic\\_curve](https://en.wikipedia.org/wiki/Elliptic_curve)

Finite Field

[https://en.wikipedia.org/wiki/Finite\\_field](https://en.wikipedia.org/wiki/Finite_field)

Key Agreement Protocol

[https://en.wikipedia.org/wiki/Key-agreement\\_protocol](https://en.wikipedia.org/wiki/Key-agreement_protocol)

Key

[https://en.wikipedia.org/wiki/Key\\_\(cryptography\)](https://en.wikipedia.org/wiki/Key_(cryptography))

Digital Signature Algorithm

[https://en.wikipedia.org/wiki/Digital\\_Signature\\_Algorithm](https://en.wikipedia.org/wiki/Digital_Signature_Algorithm)

## **SHA2 - 256**

<https://en.wikipedia.org/wiki/SHA-2>

## **RSA**

[https://en.wikipedia.org/wiki/RSA\\_\(cryptosystem\)](https://en.wikipedia.org/wiki/RSA_(cryptosystem))

## **Entropy**

[https://en.wikipedia.org/wiki/Entropy\\_\(computing\)](https://en.wikipedia.org/wiki/Entropy_(computing))

## **CSPRNG**

[https://en.wikipedia.org/wiki/Cryptographically\\_secure\\_pseudorandom\\_number\\_generator](https://en.wikipedia.org/wiki/Cryptographically_secure_pseudorandom_number_generator)

*Toffoli Gate*

[https://en.wikipedia.org/wiki/Toffoli\\_gate](https://en.wikipedia.org/wiki/Toffoli_gate)

HW Components

- **Infineon OPTIGA™ Trust E** *embedded Security Controller*
- **Infineon XMC 1100** *embedded  $\mu$ Controller*
- **Raspberry Pi 3B** *Linux dev. board*
- **Pi Camera NoIR** *camera module*
- **HC-SR501 PIR** *Motion detector*

### **Infineon OPTIGA™ Trust E**

<https://www.infineon.com/cms/en/product/evaluation-boards/s2go-security-optiga-e/>

<https://github.com/Infineon/OPTIGA-Trust-E-Security-Controller>

### **nRF24L01 Product Specification**

[https://www.nordicsemi.com/eng/content/download/2730/34105/file/nRF24L01\\_Product\\_Specification\\_v2\\_0.pdf](https://www.nordicsemi.com/eng/content/download/2730/34105/file/nRF24L01_Product_Specification_v2_0.pdf)

### **Raspberry Pi Hardware**

<https://www.raspberrypi.org/documentation/hardware/raspberrypi/README.md>

### **Raspberry Pi Zero uC**

<https://www.raspberrypi.org/documentation/hardware/raspberrypi/bcm2835/README.md>

### **Raspberry Pi B3 uC**

<https://www.raspberrypi.org/documentation/hardware/raspberrypi/bcm2837/README.md>

### **XMC Family**

<https://github.com/Infineon/XMC-for-Arduino>

### **KL25Z on mbed.com**

<https://os.mbed.com/platforms/KL25Z/>

### **HC-SR501 PIR Product Description**

<https://www.mpja.com/download/31227sc.pdf>