

# ClonJulian Adaptado Borr CIAA-IDE EN UBUNTU 16.04 VM EN WIN7-PRO / BIGi5

rev 24-05-19 / R.Oliva

ESTE DOC en C:\CESE\_Ubuntu\CIAA\_IDE\_Work\RTOS2\_2019\DOCs  
EnsayosCIAA\_IDE(ModJulian)\_enUbuntu\_VM\_enBigi5(win7)\_rev240519.docx|

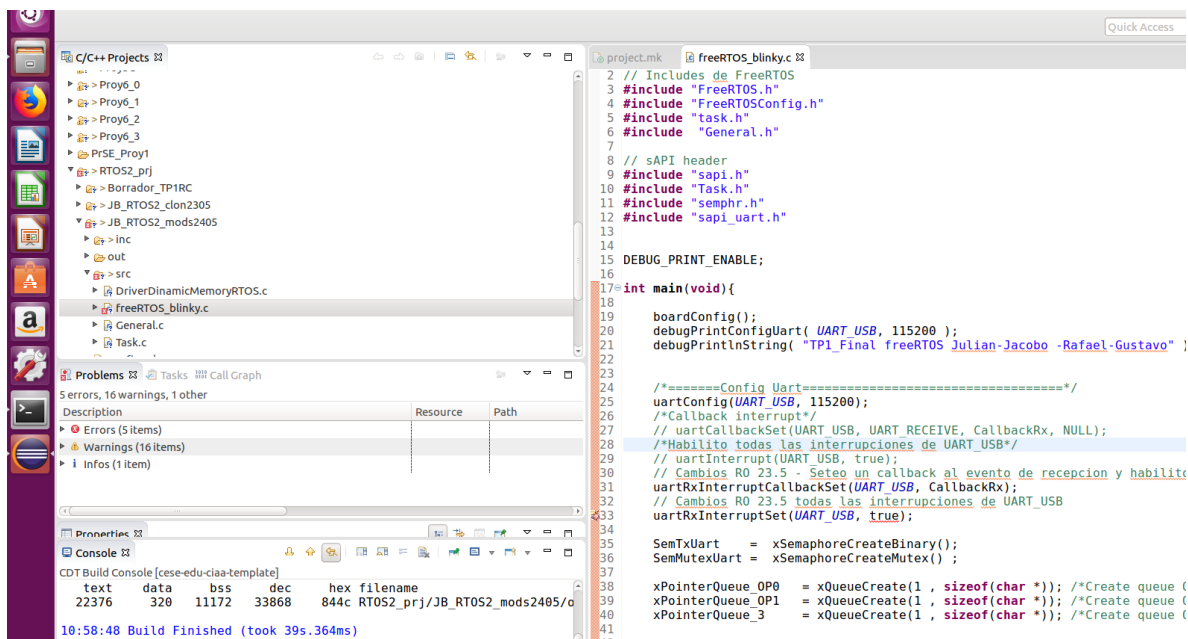
1. Acceso a Ciaa-IDE, que sigue siendo via terminal..(/ciaa\_ide )
2. Editamos a RTOS2\_prj/JB\_RTOS2\_mods2405, editando el Project.mk

```
83 #PROJECT_PATH = RTOS2_prj
84 #PROJECT_NAME = JB_RTOS2_clon2305
85
86 PROJECT_PATH = RTOS2_prj
87 PROJECT_NAME = JB_RTOS2_mods2405
```

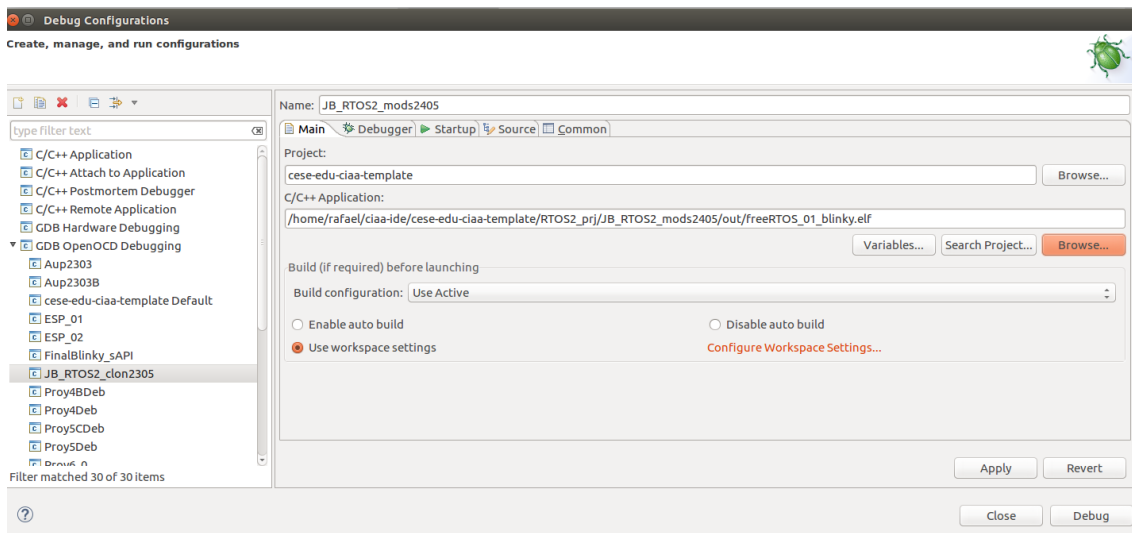
3. Cambios en Main() para compilación con mi configuracion, siempre usando Project->Build Project

```
uartConfig(UART_USB, 115200);
// Cambios RO 23.5 - Seteo un callback al evento de recepcion y habilito su interrupcion
uartRxInterruptCallbackSet(UART_USB, CallbackRx);
// Cambios RO 23.5 todas las interrupciones de UART_USB
uartRxInterruptSet(UART_USB, true);
```

3. Compila (todo desde 0):



Todo ok – necesitamos conectar EDUCIAA, va a funcionar puerto USB a 115200 via Debug.  
Luego en Run-> Debug Configurations, Browse -> navegamos a:

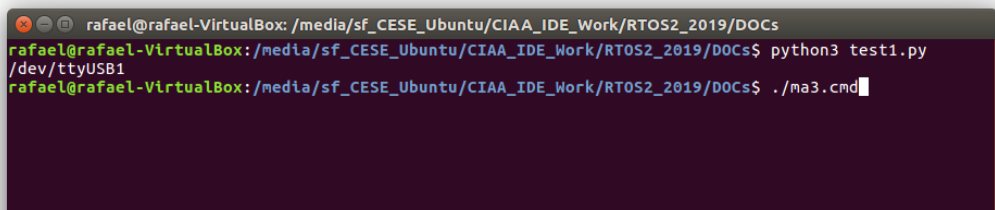


Apply - Y luego (tenemos CIAA conectada a puerto Debug via USB)...

Entra a Vista Debug, listo para correr

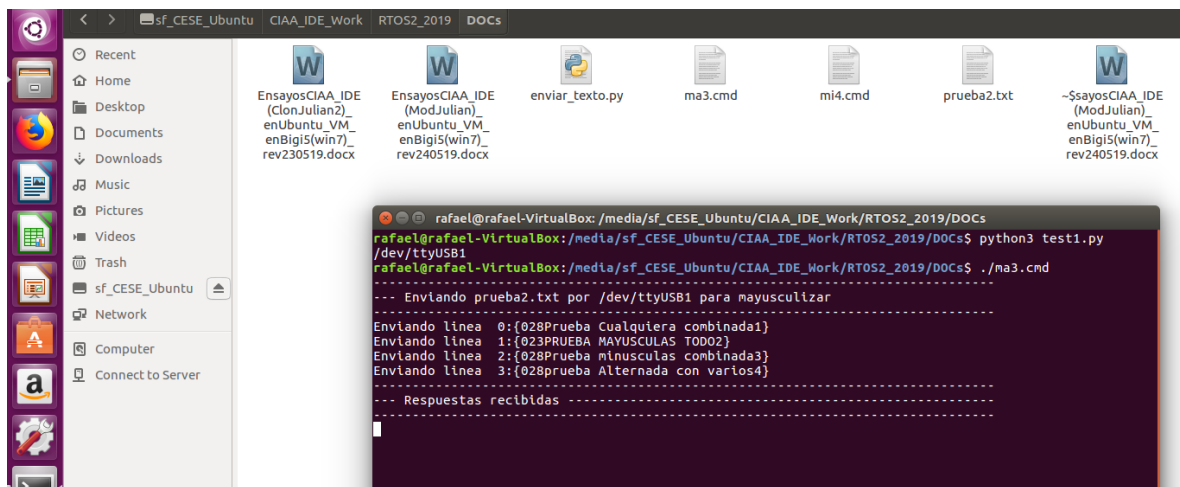
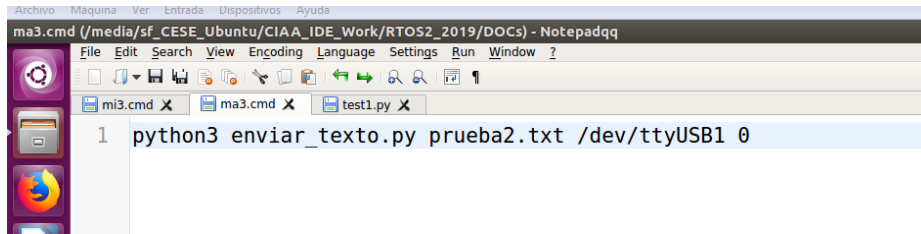
3. Ejecución: Vamos dando con F6, stepover—

4. Ejecutamos el python test1.py para ver si está ok el USB1 COM (EDUCIAA)



5. El CMD funciona pero no produce respuestas..

→ ma3.cmd es:



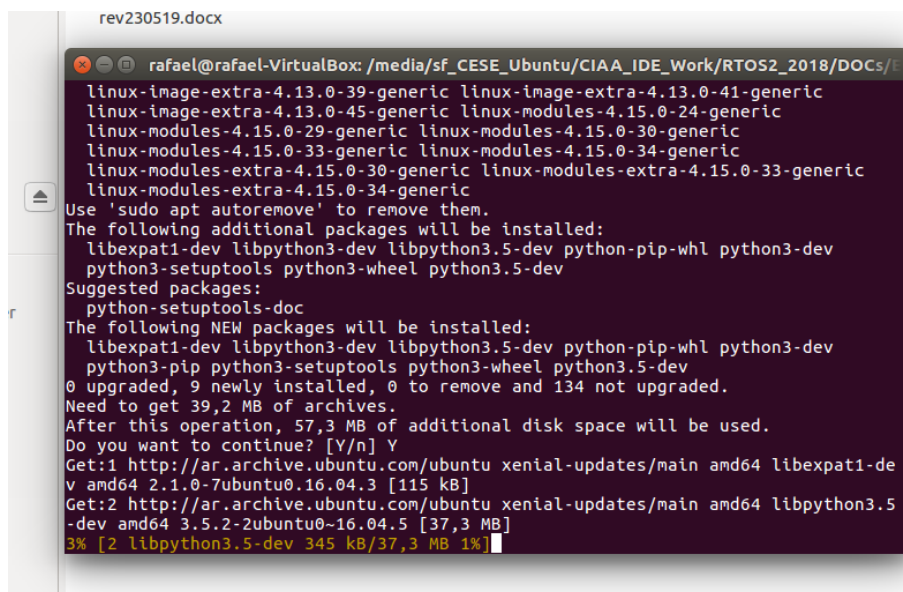
## ANEXO – 6 – Instalacion de PYSerial en Ubuntu 16.04

6.d intentamos pip3 install pyserial,

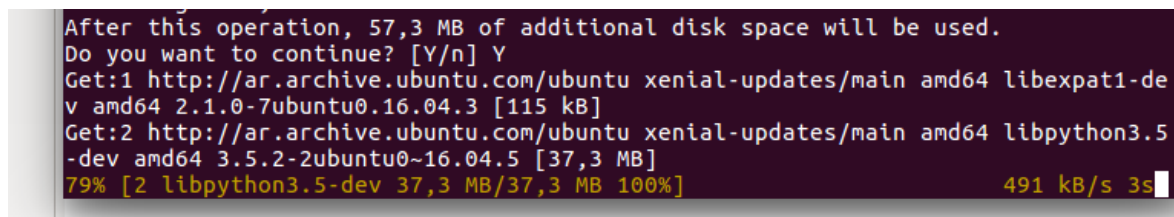
“The program 'pip3' is currently not installed. You can install it by typing:

sudo apt install python3-pip” -> Lo intentamos:

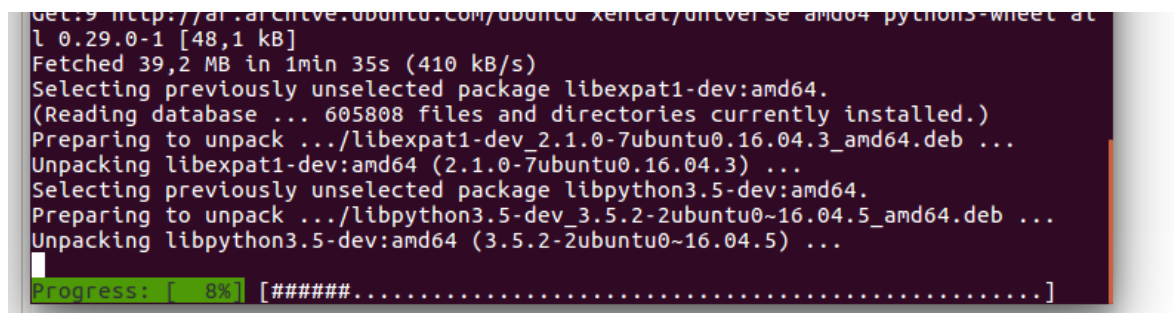
es grande..



```
rev230519.docx
rafael@rafael-VirtualBox: /media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCS/
linux-image-extra-4.13.0-39-generic linux-image-extra-4.13.0-41-generic
linux-image-extra-4.13.0-45-generic linux-modules-4.15.0-24-generic
linux-modules-4.15.0-29-generic linux-modules-4.15.0-30-generic
linux-modules-4.15.0-33-generic linux-modules-4.15.0-34-generic
linux-modules-extra-4.15.0-30-generic linux-modules-extra-4.15.0-33-generic
linux-modules-extra-4.15.0-34-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  libexpat1-dev libpython3-dev libpython3.5-dev python-pip-whl python3-dev
  python3-setuptools python3-wheel python3.5-dev
Suggested packages:
  python-setuptools-doc
The following NEW packages will be installed:
  libexpat1-dev libpython3-dev libpython3.5-dev python-pip-whl python3-dev
  python3-pip python3-setuptools python3-wheel python3.5-dev
0 upgraded, 9 newly installed, 0 to remove and 134 not upgraded.
Need to get 39,2 MB of archives.
After this operation, 57,3 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ar.archive.ubuntu.com/ubuntu xenial-updates/main amd64 libexpat1-de
v amd64 2.1.0-7ubuntu0.16.04.3 [115 kB]
Get:2 http://ar.archive.ubuntu.com/ubuntu xenial-updates/main amd64 libpython3.5
-dev amd64 3.5.2-2ubuntu0~16.04.5 [37,3 MB]
3% [2 libpython3.5-dev 345 kB/37,3 MB 1%]
```



```
After this operation, 57,3 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ar.archive.ubuntu.com/ubuntu xenial-updates/main amd64 libexpat1-de
v amd64 2.1.0-7ubuntu0.16.04.3 [115 kB]
Get:2 http://ar.archive.ubuntu.com/ubuntu xenial-updates/main amd64 libpython3.5
-dev amd64 3.5.2-2ubuntu0~16.04.5 [37,3 MB]
79% [2 libpython3.5-dev 37,3 MB/37,3 MB 100%] 491 kB/s 3s
```



```
Get:3 http://ar.archive.ubuntu.com/ubuntu xenial/universe amd64 python3-wheel al
l 0.29.0-1 [48,1 kB]
Fetched 39,2 MB in 1min 35s (410 kB/s)
Selecting previously unselected package libexpat1-dev:amd64.
(Reading database ... 605808 files and directories currently installed.)
Preparing to unpack .../libexpat1-dev_2.1.0-7ubuntu0.16.04.3_amd64.deb ...
Unpacking libexpat1-dev:amd64 (2.1.0-7ubuntu0.16.04.3) ...
Selecting previously unselected package libpython3.5-dev:amd64.
Preparing to unpack .../libpython3.5-dev_3.5.2-2ubuntu0~16.04.5_amd64.deb ...
Unpacking libpython3.5-dev:amd64 (3.5.2-2ubuntu0~16.04.5) ...
Progress: [ 8%] [#####.....]
```

Aparentemente ahí estaría:

```
rafael@rafael-VirtualBox: /media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/E
Selecting previously unselected package python3-pip.
Preparing to unpack .../python3-pip_8.1.1-2ubuntu0.4_all.deb ...
Unpacking python3-pip (8.1.1-2ubuntu0.4) ...
Selecting previously unselected package python3-setuptools.
Preparing to unpack .../python3-setuptools_20.7.0-1_all.deb ...
Unpacking python3-setuptools (20.7.0-1) ...
Selecting previously unselected package python3-wheel.
Preparing to unpack .../python3-wheel_0.29.0-1_all.deb ...
Unpacking python3-wheel (0.29.0-1) ...
Processing triggers for doc-base (0.10.7) ...
Processing 1 added doc-base file...
Processing triggers for man-db (2.7.5-1) ...
Setting up libexpat1-dev:amd64 (2.1.0-7ubuntu0.16.04.3) ...
Setting up libpython3.5-dev:amd64 (3.5.2-2ubuntu0~16.04.5) ...
Setting up libpython3-dev:amd64 (3.5.1-3) ...
Setting up python-pip-whl (8.1.1-2ubuntu0.4) ...
Setting up python3.5-dev (3.5.2-2ubuntu0~16.04.5) ...
Setting up python3-dev (3.5.1-3) ...
Setting up python3-pip (8.1.1-2ubuntu0.4) ...
Setting up python3-setuptools (20.7.0-1) ...
Setting up python3-wheel (0.29.0-1) ...
rafael@rafael-VirtualBox: /media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$
```

6.e reintentamos 6.d: pip3 install pyserial

```
Setting up python3-wheel (0.29.0-1) ...
rafael@rafael-VirtualBox: /media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ pip3 install pyserial
Collecting pyserial
  Downloading https://files.pythonhosted.org/packages/0d/e4/2a744dd9e3be04a0c090
7414e2a01a7c88bb3915cbe3c8cc06e209f59c30/pyserial-3.4-py2.py3-none-any.whl (193k
B)
  100% |████████████████████████████████████████| 194kB 511kB/s
Installing collected packages: pyserial
Successfully installed pyserial
```

Recomienda un upgrade:

```
rafael@rafael-VirtualBox: /media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ pip3 install pyserial
Collecting pyserial
  Downloading https://files.pythonhosted.org/packages/0d/e4/2a744dd9e3be04a0c090
7414e2a01a7c88bb3915cbe3c8cc06e209f59c30/pyserial-3.4-py2.py3-none-any.whl (193k
B)
  100% |████████████████████████████████████████| 194kB 511kB/s
Installing collected packages: pyserial
Successfully installed pyserial
You are using pip version 8.1.1, however version 19.1.1 is available.
You should consider upgrading via the 'pip install --upgrade pip' command.
rafael@rafael-VirtualBox: /media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$
```

Pero por ahora dejamos así:

6.f Ahora reintentamos ejecutar: ./ma.cmd, pero todavía me dice que no tiene el pyserial. Probamos cerrando el terminal y reabriendo.. NADA – rebooteamos, y del video del anexo, buscamos las versiones:

```

python3: can't open file 'ver': [Errno 2] No such file or directory
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ python3 --version
Python 3.5.2
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ pip3 --version
pip 8.1.1 from /usr/lib/python3/dist-packages (python 3.5)
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$

```

6.g Probamos con Test.py, similar al del video (1):

```

1 import serial
2 ser = serial.Serial('/dev/ttyUSB0')
3 print(ser.name)
4 ser.close()

```

y da ok:

```

rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ ls
EnsayosCIAA_IDE(TP1RC2018)_enUbuntu_VM_enBigi5(win7)_rev230519.docx
enviar_texto.py
ma.cmd
mi.cmd
p.cmd
prueba.txt
~$sayosCIAA_IDE(TP1RC2018)_enUbuntu_VM_enBigi5(win7)_rev230519.docx
test.py
~WRL3922.tmp
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ python3 test.py
/dev/ttyUSB0
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$

```

6.h Entonces creamos un ma2.cmd, distinto (este parece hecho para Windows..)

```
python3 enviar_texto.py prueba.txt /dev/ttyUSB0 0
```

Da error como que no puede abrir el puerto, de hecho hemos reconectado la placa y dado “Play” al programa en BorrTP1\_RC, dentro de la CIAA IDE.

6.i Probamos con Test1.py, similar al test.py pero que accede al /dev/ttyUSB1, y ahí vemos que reacciona ok, entonces es un problema de puerto.

```

Errno 2] No such file or directory: '/dev/ttyUSB0'
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens
ayosBorrTP1RC$ python3 test1.py
/dev/ttyUSB1
rafael@rafael-VirtualBox:/media/sf_CESE_Ubuntu/CIAA_IDE_Work/RTOS2_2018/DOCs/Ens

```

6.J Entonces creamos un ma3.cmd, que accede igual pero al puerto USB1

```
python3 enviar_texto.py prueba.txt /dev/ttyUSB1 0
```

y ahora sí responde!!

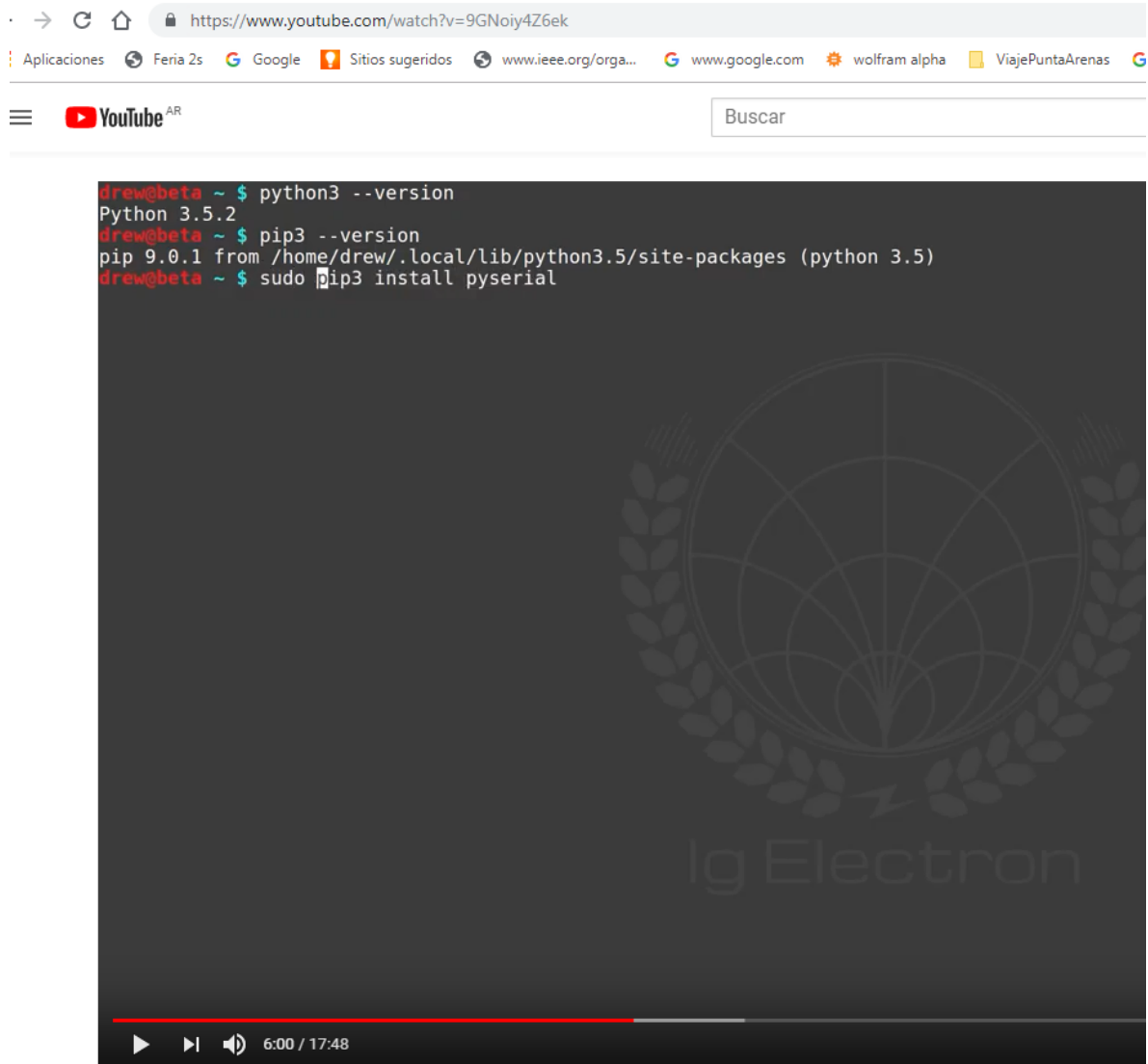
## 7. ) TERMINAL:

Por ahora no Necesitamos un terminal, para configurar:

```
sudo minicom -s
```

Serial: 115200, 8N1

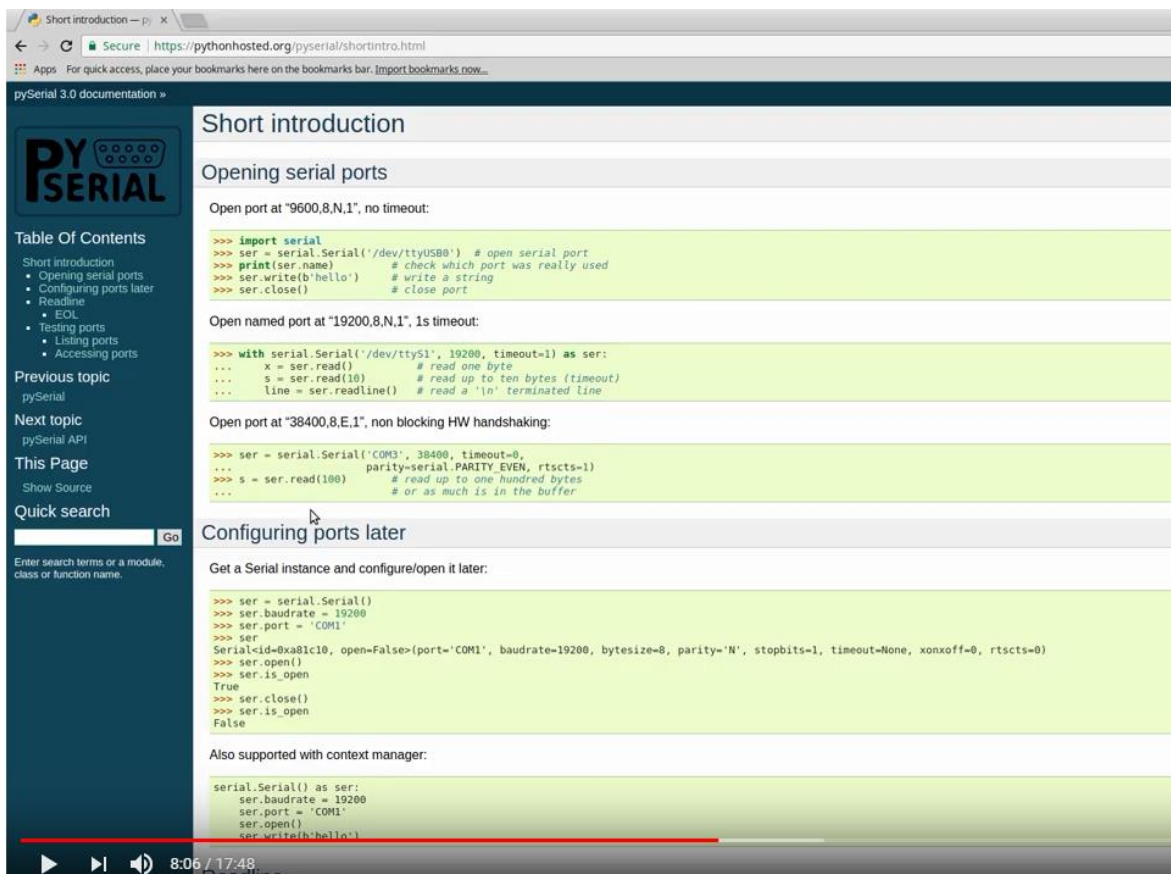
## ANEXO 8: VIDEO <https://www.youtube.com/watch?v=9GNoiy4Z6ek>



A first look at Python serial communications to hardware

4.156 visualizaciones





FINALIZACION:

Backup a Windows:

Con el botón rojo hacemos Terminate. Es posible copiar el Proyecto desde Eclipse, parados sobre origen Mouse derecho -> copiar, y lo pegamos en Directorio común /CESE\_Ubuntu

Y en el directorio compartido sf\_CESE\_Ubuntu

Hacemos un shutdown antes de salir..

