

# **Advantech AE Technical Share Document**

Date	2018/1/12	Release Note	■ Internal □ External
Category	■ FAQ □ SOP	Related OS	Linux
Abstract	How to install DIO driver on AdvLinux		
Keyword	DIO, AdvLinux		
Related Product	UNO-1171,UNO-1172A,UNO-2050,UNO-2176,		
	UNO-2679,UNO-3062,UNO-3062L,UNO-3072,		
	UNO-3074,UNO-3072A,UNO-3082,UNO-3084,UNO-4672,TPC-1571		

### Problem Description:

Install the AdvLinux and how to run the test applaction.

## Brief Solution - Step by Step:

#### Step1

Select Auto installation

AD	NANTECH	A
0	You are using Advantech device, if you select 'Auto Installation', the install parameters will be configured automatically. All disks will be formated to one and configure all of network interfaces, After installation, system will login automatically. If you select 'Manual Installation', you can configure parameters manually.	
O Mani	al Installation	



#### Step2

Uncheck "install Realtime kernel"

elect system mode	And the second
O text-system	
🔾 xorg-system	
professional-Tystem	
Select Packages you need	Sector Landstein
Base-System	
Yum	
tītp	
Ipsec	
mysql	
apache	



Enabling an Intelligent Planet

#### Step3

When OS install done, un-zip the "unodio\_source\_v1.13.tar.gz" by "gzip -d unodio\_source\_v1.13.tar.gz", "tar -xvf unodio\_source\_v1.13.tar"command.



unodio\_source\_v1.13.tar.gz

File Edit View Terminal Go Help	and the second	+ - Ø
[root@localhost ~]# ls		
Desktop		
[root@localhost ~]# cd Desktop/		
[root@localhost Desktop]# ls		
Inoctaleselbert Distar.gz		
[root@localhost Desktop]# gzip -d unodio_source_v1.13.tar.gz		
upodio source v1.12/		- 4 - I
Unodio_source_v1_13/include/		
Unodio source v1.13/include/upodio b		
unodio source v1.13/include/unodio ioct1 h		
unodio source v1.13/Changelog		
unodio_source_v1.13/examples/		
unodio_source_v1.13/examples/buzzer.c		
unodio_source_v1.13/examples/programled.c		1 and
unodio_source_v1.13/examples/led.c		
unodio_source_v1.13/examples/power.c		
unodio_source_v1.13/examples/nortio_c		
unodio source v1.13/examples/Makefile		
unodio source v1.13/examples/freq.c		
unodio_source_v1.13/examples/digin.c		
unodio_source_v1.13/examples/diint.c		
unodio_source_v1.13/examples/counter.c		ALC: NO
unodio_source_v1.13/examples/digout.c		
Unodio_source_v1.13/examples/pulse.c		



#### Step4

Cd to /driver folder and "make install"

Terminal - root@localhost:~/Desktop/un	odio_source_v1.13/driver + _ @
<pre>[root@localhost driver]# ls built-in.o modules.order uno_dio Makefile Module.symvers uno_dio Makefile-2.4.inc uno_dio_2679.c uno_dio Makefile-2.6.inc uno_dio_2679.o uno_dio.] [root@localhost driver]# make install [root@localhost driver]#</pre>	unodio.ko unodio.o core.c unodio.mod.c core.o unodio.mod.o n uno_dio.o

#### Step5

Run the sample application by "./+application name" command. If test pass you will see the DI bit and value of the port as below picture.

Terminal -	lhost:~/Desktop/upadia source v1.12/oversites
File Edit View Terminal	t - D
gcc -I/include -02 -wall	-Wstrict-prototypes -g -o pulse pulse.c -L/lib/ -
acc -I/include -02 -Wall	Wet state and wet
-lunodio -lrt -lpthread	-wstrict-prototypes -g -o portio portio.c -L/lib/
gcc -I/include -02 -Wall	-Wstrict-prototypes -g -o power power.c -L/lib/ -
[root@localbost_examples1#	
buzzer digin diint	led portio c programled a timer a
buzzer.c digin.c diint.	.c led.c power pulse
counter digout freq	Makefile power.c pulse.c
[root@localhost examples]#	/digin
Digital input via po	ort output and bit number
DI value of port $\theta = \theta x \theta$	
DI bit 0 vaule of port 0 =	0×0 I
DI bit 1 vaule of port 0 =	
DI bit 3 vaule of port 0 =	0×0
DI bit 4 vaule of port 0 =	0×0
DI bit 5 vaule of port 0 =	0×0
DI bit 7 vaule of port $0 =$	
value of port of	
Press any key to exit	
🗶 🔳 📄 🌌 🔟 Terminal - rooto	@localho 👔 📓 👘 👍 🚅 06.00 root

Reference: N/A Contact Window and File Link: If you have any questions, please contact Simon.Peng #7707