

## Guide to install LinuxCNC 2.5.4 with IRB6-S2 robot configuration

1. Install linuxcnc with Ubuntu 10.04 live\_cd. You can download from:

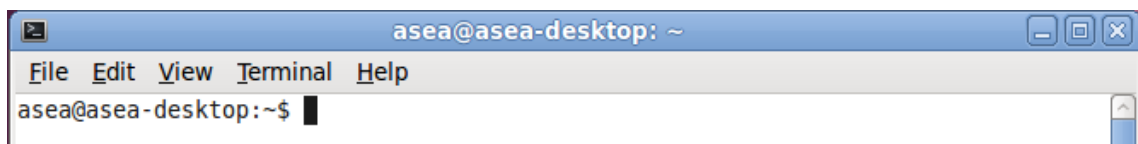
<http://linuxcnc.org/iso/ubuntu-10.04-linuxcnc3-i386.iso>

<http://dsplabs.upt.ro/~juve/emc/get.php?file=ubuntu-10.04-linuxcnc3-i386.iso>

More information about linuxcnc 2.5.4 installation and version requirements at

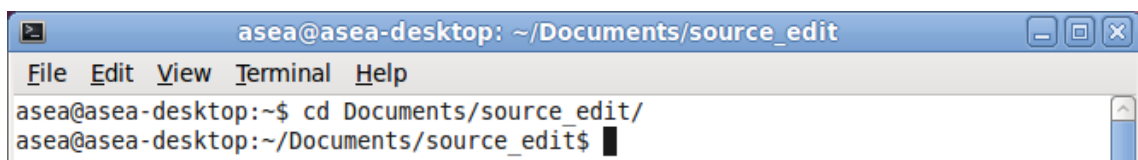
[http://linuxcnc.org/docs/2.5/html/common/Getting\\_EMC.html#\\_installing\\_linuxcnc](http://linuxcnc.org/docs/2.5/html/common/Getting_EMC.html#_installing_linuxcnc)

2. It is necessary basic information at Ubuntu 10.04 installation like:  
User: asea  
Password: irb
3. Copy the folder named as "irb\_files" to "/home/asea/Documents" folder.
4. In "irb\_files" folder you have 3 objects:  
"irb" folder: it has configuration files of robot.  
"source\_edit" folder: it has source code of linuxcnc 2.5.4  
"irbgui" script: it has a python code of irb6-s2 virtual model
5. Open Ubuntu terminal (Ctrl+Alt+T)



```
asea@asea-desktop: ~  
File Edit View Terminal Help  
asea@asea-desktop:~$
```

6. Go to "source\_edit" folder with following commands:

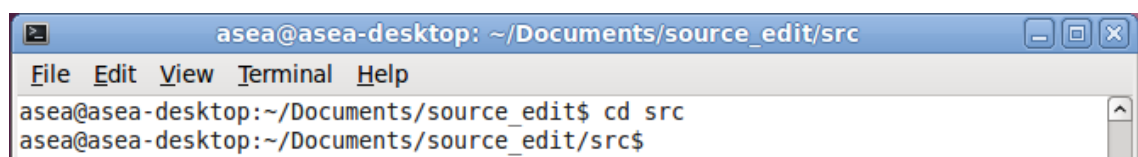


```
asea@asea-desktop: ~/Documents/source_edit  
File Edit View Terminal Help  
asea@asea-desktop:~$ cd Documents/source_edit/  
asea@asea-desktop:~/Documents/source_edit$
```

7. It is possible see folder content with "ls" command:

```
asea@asea-desktop:~/Documents/source_edit$ ls  
app-defaults  directory.map  linuxcncicon.png  rtlib  tests  
bin           docs          linuxcnc-wizard.gif  scripts  TODO  
configs      include      linuxcnc.xcf       share    VERSION  
COPYING      lib          nc_files           src  
debian       linuxcnc.gif  README            tcl
```

8. Go to "/src/" location



```
asea@asea-desktop: ~/Documents/source_edit/src  
File Edit View Terminal Help  
asea@asea-desktop:~/Documents/source_edit$ cd src  
asea@asea-desktop:~/Documents/source_edit/src$
```

9. Now it is necessary compile entire linuxcnc source package with irb6-s2 configuration. First it is necessary have root privileges:

```
root@asea-desktop: /home/asea/Documents/source_edit/src
File Edit View Terminal Help
asea@asea-desktop:~/Documents/source_edit/src$ sudo su
[sudo] password for aseas:
root@asea-desktop:/home/asea/Documents/source_edit/src#
```

10. After that it is possible compile linuxcnc source package with:

```
root@asea-desktop: /home/asea/Documents/source_edit/src
File Edit View Terminal Help
root@asea-desktop:/home/asea/Documents/source_edit/src# ./autogen.sh
root@asea-desktop:/home/asea/Documents/source_edit/src# ./configure --prefix=/usr/
```

11. If everything it is right, terminal shows next message:

```
root@asea-desktop: /home/asea/Documents/source_edit/src
File Edit View Terminal Help
#####
# LinuxCNC - Enhanced Machine Controller #
#####
# #
# LinuxCNC is a software system for computer control of machine #
# tools such as milling machines. LinuxCNC is released under the #
# GPL. Check out http://www.linuxcnc.org/ for more details. #
# #
# It seems that ./configure completed successfully. #
# This means that RT is properly installed #
# If things don't work check config.log for errors & warnings #
# #
# warning: If you already have an installed linuxcnc, this will #
# replace an existing installation. If you have installed #
# a linuxcnc package, this will damage the package. #
# hint: To test a self-built version of linuxcnc without damaging #
# the package version, don't specify a --prefix #
# #
# Next compile by typing #
# make #
# then install it by typing #
# sudo make install #
# #
# To run the software type #
# linuxcnc #
#####
root@asea-desktop:/home/asea/Documents/source_edit/src#
```

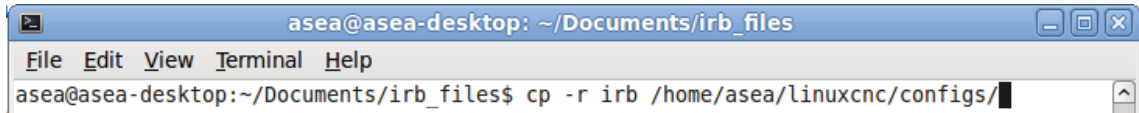
12. After linuxcnc source package is configured, it is possible compile with the next 3 commands:

- a) **make clean**: it removes any intermediate or output files from your source / build tree.
- b) **make**: This builds the program.
- c) **make install**: This again invokes make, make finds the target install in Makefile and files the directions to install the program.

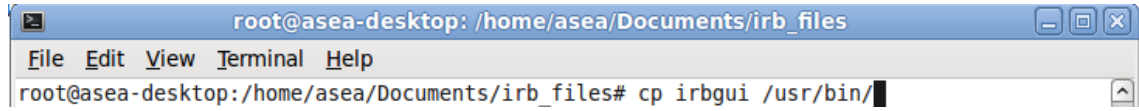
13. If everything is right, system response is:

```
Installed in with prefix /usr
make: Leaving directory `/home/asea/Documents/source_edit/src'
root@asea-desktop:/home/asea/Documents/source_edit/src#
```

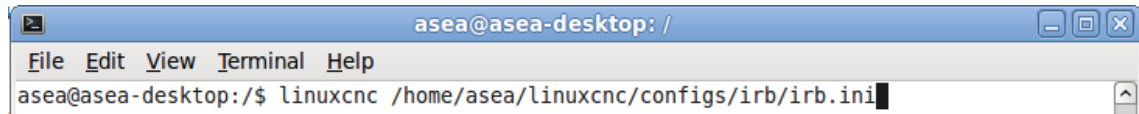
14. After compiling process it is necessary copy "irb" folder into /home/linuxcnc/configs/



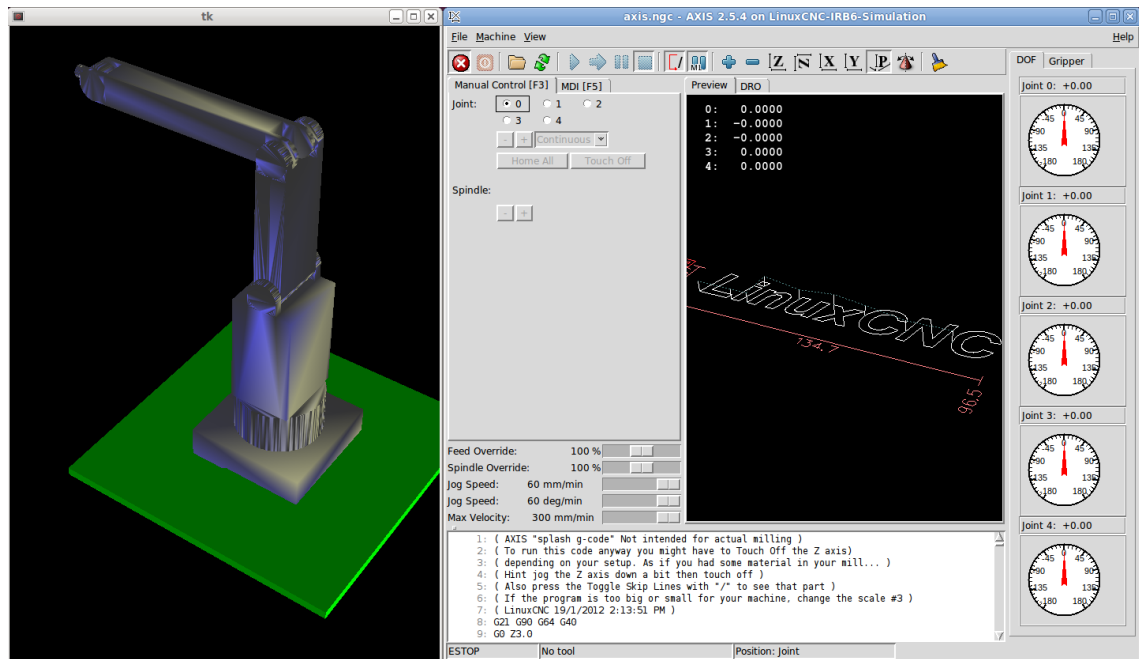
15. For robot simulation, it is necessary copy "irbgui" file into /usr/bin. With root privileges.



16. To execute linuxcnc with irb6-s2 configuration, the following is required:



17. Done, you can interact with irb6-s2 configuration in linuxcnc.



18. Any question or suggestion, send a message to [jstoquica@gmail.com](mailto:jstoquica@gmail.com)