You need to copy the kernel source tree to your own directory first.

```
cd /usr/src
cp -R linux-xxxx/ ~
```

Then run the make file configuration program

```
cd ~/linux-xxx
make xconfig
```

Make sure that there is support for ext3 file systems and then quit and save the configurati on. Then you need to append a unique id string to your kernel.

```
perl -p -i -e "s/^EXTRAVERSION.*/EXTRAVERSION = -your_name/" Makefile
make clean
make dep
make bzImage
```

You may wish to read the README file for other information on building the kernel.
Assuming the build completes without error you can then move your kernel to the /boot direct ory. Make sure you call your image something unique like linux-xxx-you_name so you don’t ove rwrite some one else’s kernel (or the default one). lastly make the modules and install them . Note that this must be done as root.

```
cp arch/i386/boot/bzImage /boot/kernel-xxx-your_name
make modules
make modules_install
```

Once the kernel and modules are installed you need to modify the /etc/grub.conf file to incl ude your new kernel. The file needs to look something like this.

```
#
default 0
#
# grub.conf generated by anaconda
#
# Note that you do not have to rerun grub after making changes to this file
# NOTICE:  You have a /boot partition.  This means that
#          all kernel and initrd paths are relative to /boot/, eg.
#          root (hd0,0)
#          kernel /vmlinuz-version ro root=/dev/hda2
#          initrd /initrd-version.img
#boot=/dev/hda
timeout=15
splashimage=(hd0,0)/grub/splash.xpm.gz
title Fedora Core (2.6.12-1.1372_FC3smp)
        root (hd0,0)
        kernel /vmlinuz-2.6.12-1.1372_FC3smp root=LABEL=/
        initrd /initrd-2.6.12-1.1372_FC3smp.img
title Win4lin (2.6.11_FC3)
        root (hd0,0)
        kernel /vmlinuz-2.6.11-w4l root=/dev/hda2
title Win4Lin 2.6.10 your_name
        root (hd0,0)
        kernel /win4lin-2.6.10-your_name root=/dev/hda2
```

Note that the default should remain the same. Add your new stuff at the end of the file. Whe n you reboot the system you will be presented with a menu to choose the kernel image to boot . Choose yours.