

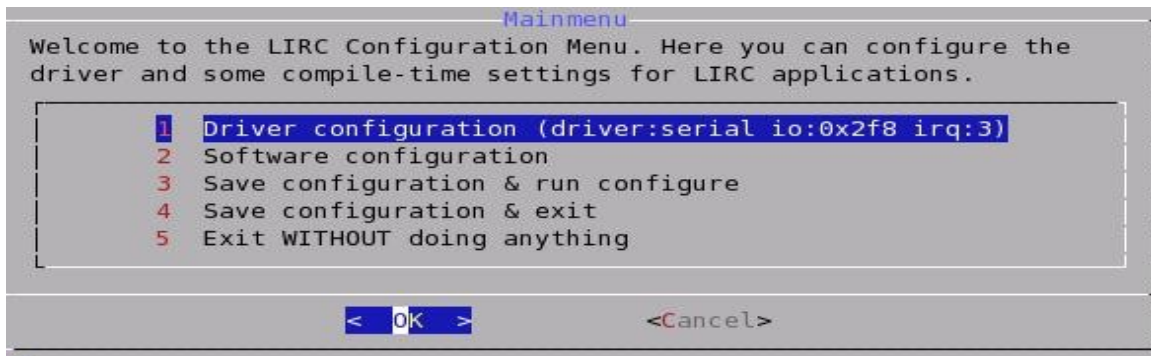
Membuat Sensor Penerima Infra Red (LIRC)

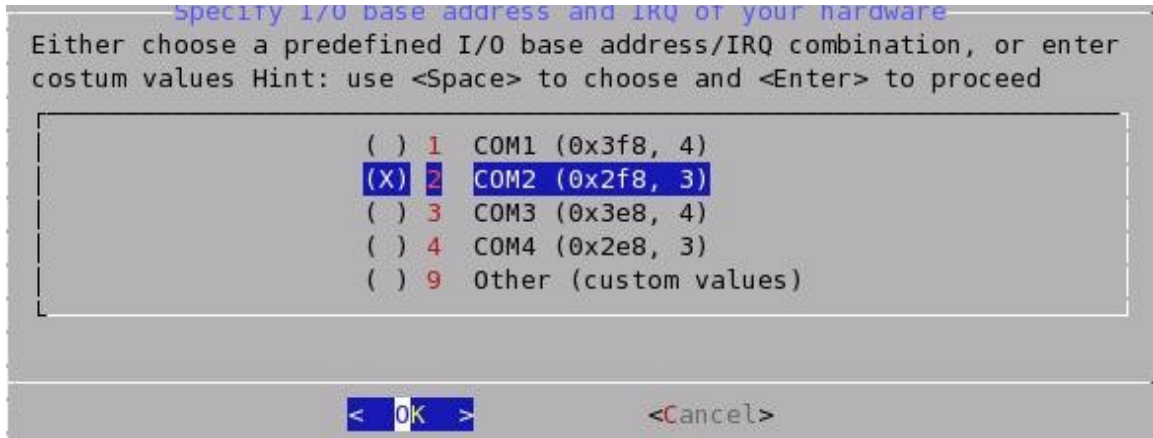
Pada artikel sebelumnya telah di jelaskan bagaimana memanfaatkan Remote dari TV Tuner Card untuk menjalankan shell command menggunakan aplikasi LIRC. Tulisan ini akan menjelaskan bagaimana membuat sendiri sensor penerima infra red, dengan memakai remote bekas apa saja (VCD, TV, DVD, lainnya) . Sistem Operasi yang digunakan yaitu Linux Mandriva 10.2, kernel 2.6.11-6mdk (default kernel).

1. Install LIRC

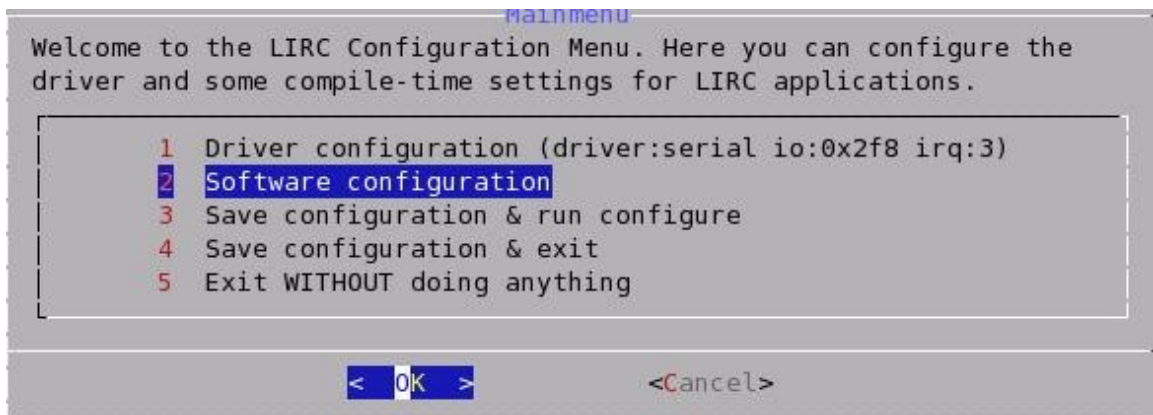
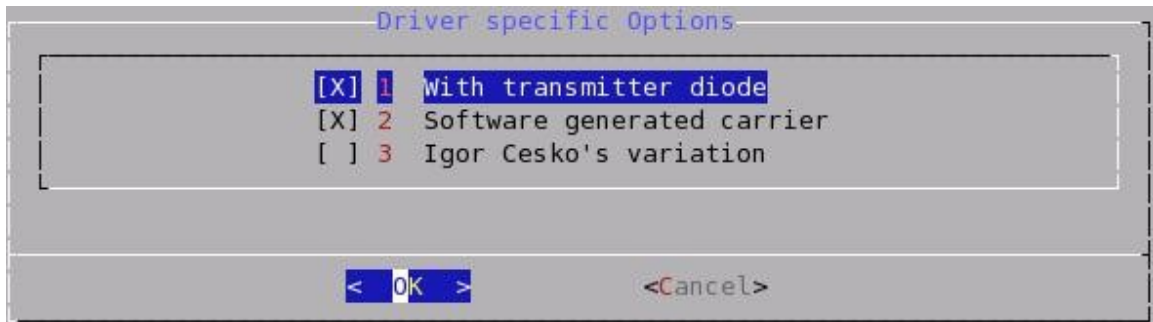
Sebelum compile lirc pastikan kernel source sudah terinstall, download LIRC di www.lirc.org.

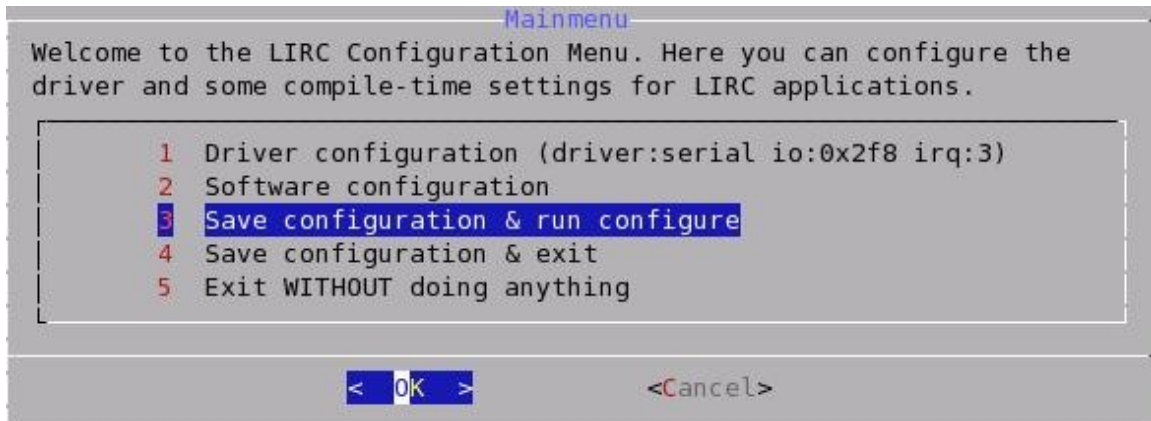
```
wget http://jaist.dl.sourceforge.net/sourceforge/lirc/lirc-0.8.0.tar.bz2
tar jxvf lirc-0.8.0.tar.bz2 -C /home/faiz/tmp/
cd /home/faiz/tmp/lirc-0.8.0
./configure
```





Jika anda menggunakan port com1 pilih nomor 1.





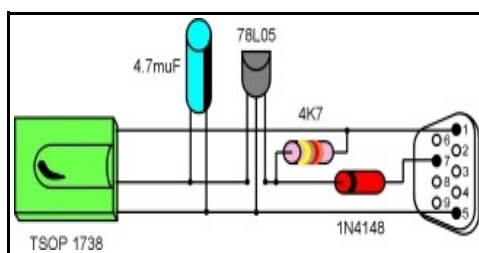
make
make install

Edit file /etc/modules.conf, tambahkan baris berikut :

alias char-major-61 lirc_serial

Save – Exit. Kemudian ketikkan perintah `depmod -a`.

2. Gambar Rangkaian



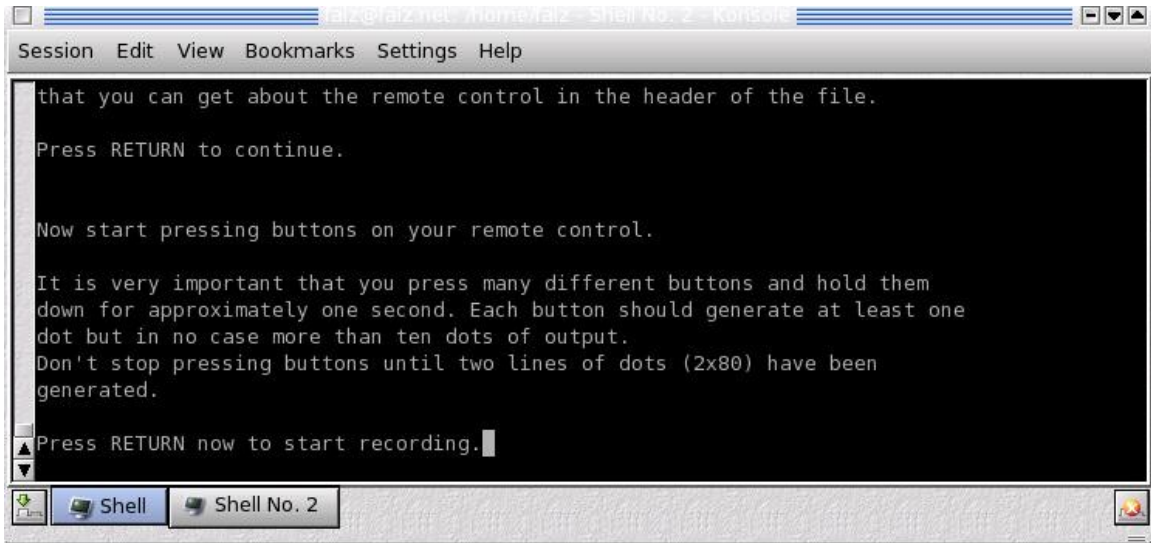
| | |
|-------------------------|-----------------------------------------------------------|
| Resistor | : 4.7 k Ω |
| Kapasitor | : 4.7 m μ F atau bisa juga 4.7 μ F |
| Transistor | : 78L05 |
| Sensor IR | : TSOP 1738 TSOP 1556 (Volt: 5 V) |
| Dioda | : 1N4148 |
| Serial Connector | : female |
| Kabel | : Secukupnya (isi 3 kabel) |
| Remote Control | : Apa saja, saya sendiri pakai remote Phillips bekas VCD. |

3. Merekam sinyal tombol remote

```
setserial /dev/ttyS1 uart none  
modprobe lirc_serial  
chmod 666 /dev/lircd  
ln -s /dev/lirc0 /dev/lirc  
irrecord phillips.conf
```

<<-- ttyS0 jika menggunakan com 0
ttyS1 jika menggunakan com 1

Membuat sendiri Sensor Penerima Infra Red

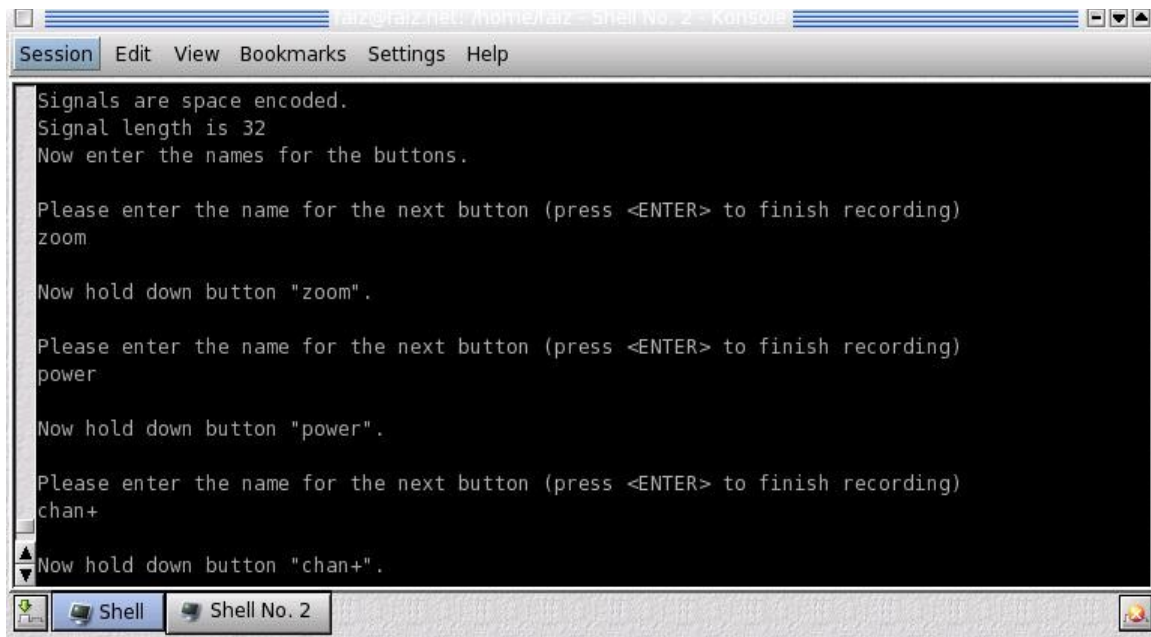


Tekan terus tombol remote hingga titik output menjadi 2 baris.



Ketikkan nama tombol di remote yang akan direkam.

Membuat sendiri Sensor Penerima Infra Red



```
faiz@faiz.net: /home/faiz - Shell No. 2 - Konsole
Session Edit View Bookmarks Settings Help
Signals are space encoded.
Signal length is 32
Now enter the names for the buttons.

Please enter the name for the next button (press <ENTER> to finish recording)
zoom

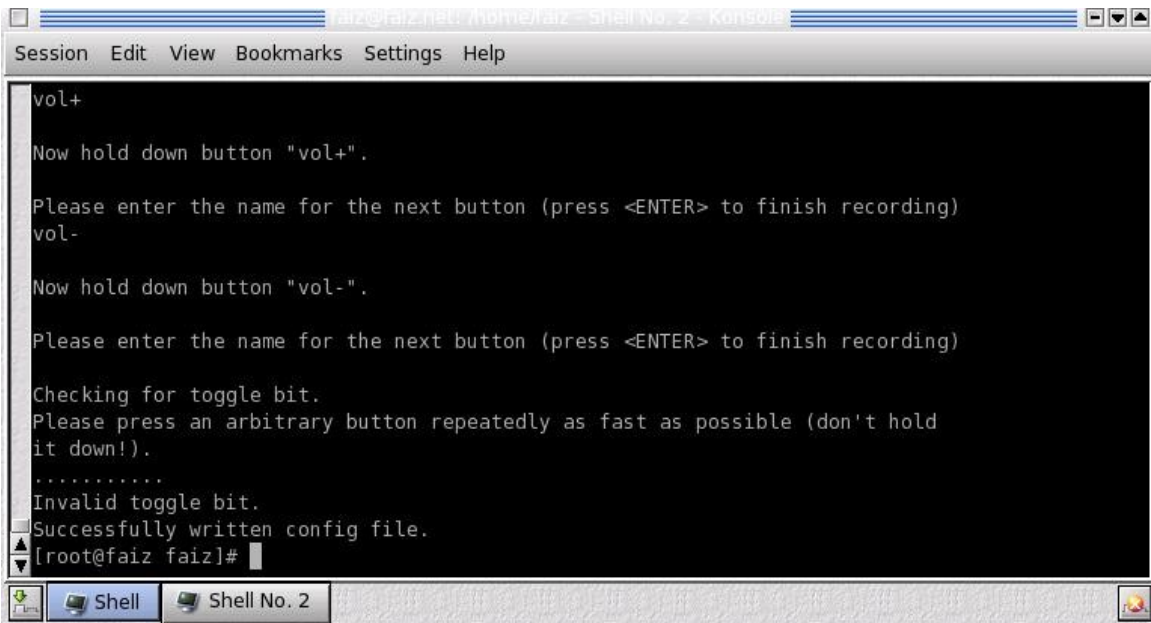
Now hold down button "zoom".

Please enter the name for the next button (press <ENTER> to finish recording)
power

Now hold down button "power".

Please enter the name for the next button (press <ENTER> to finish recording)
chan+

Now hold down button "chan+".
```



```
faiz@faiz.net: /home/faiz - Shell No. 2 - Konsole
Session Edit View Bookmarks Settings Help
vol+

Now hold down button "vol+".

Please enter the name for the next button (press <ENTER> to finish recording)
vol-

Now hold down button "vol-".

Please enter the name for the next button (press <ENTER> to finish recording)

Checking for toggle bit.
Please press an arbitrary button repeatedly as fast as possible (don't hold
it down!).
.....
Invalid toggle bit.
Successfully written config file.
[root@faiz faiz]#
```

```
cp phillips.conf /etc/lircd.conf
/usr/local/sbin/lircd --driver=default --device=/dev/lirc0 --output=/dev/lircd
/usr/local/sbin/lircmd
```

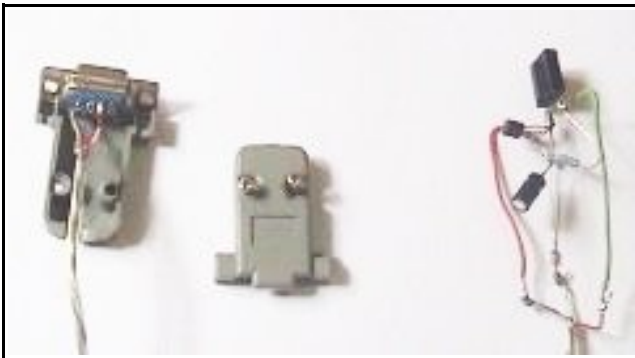
4. Jalankan daemon irexec dan irxevent

contoh file .lircrc bisa di download di <http://www.purwakarta.org/flash/lircrc>.

```
cd /home/faiz  
wget http://www.purwakarta.org/flash/lircrc  
mv lircrc .lircrc  
/usr/local/bin/irexec -d /home/faiz/.lircrc  
/usr/local/bin/irxevent /home/faiz/.lircrc
```

jika anda merubah file .lircrc, restart proses irexec dan irxevent untuk menerapkan aturan barunya.

Contoh rangkaian yang telah siap pakai :



Referensi :

<http://www.lirc.org>

Faiz GP
Semoga Bermanfaat.

