

2/15/13

ACer notebook Activation for VMWare.

Raspberry

USB: Pi
PWD: raspberry

sudo su + to get root

Apt-get install git-core

git clone git://github.com/torvalds/linux
git clone git://github.com/torvalds/linux

Apt-get install lighttpd

Apt-get install minicom
Apt-get install USBmount
Mkdir /mnt/USB

@LDSNAPNP@

df -h

gcc -Wall -g -o msodinit main.c -lm
copy 74-lmsodso.rules to /etc/udev/rules.d
/home/pi/msod28cg;/
/var/www/cgi-bin/

cp /home/pi/msod28cg;/msodinit* /var/www/cgi-bin/msod28cg.cgi
chmod 4755 /var/www/cgi-bin/msod28cg.cgi

Static-file-exclude ".cgi" in lighttpd.conf

need to add sym link.

sudo lighttpd-enable-mod cgi (this will make the symbolic link to
cgi module)

10-cgi.conf

```
server.modules += ("mod-cgi")
$HTTP["url"] =~ "^/cgi-bin/" {
    cgi.assign = (".".cgi;"");
}
```

< handles .cgi and
allows CGI and
to transfer back

WIFI on Pi:

Sudo -;

lsusb

apt-cache search RTL818

Asus USB-NIO
RTL8188SU

apt-get install firmware-realtek
lsmod
rtl818

nano /etc/wpa_supplicant.conf

/etc/network/interfaces

allow-hotplug wlan0

auto wlan0
iface wlan0 inet dhcp
wpa-ssid SMC
wpa-psk tds123

Airmon
Airodump
Aireplay

start atheros

airmon-ng start wlan0 ← this will create Ath0

hail

start atheros

airodump-ng Ath0

Teste WLAN RT5370

/etc/network/interfaces
auto lo
iface lo inet loopback
iface eth0 inet dhcp
iface wlan0 inet dhcp
wpa-ssid SMC
wpa-psk tds123

ifconfig wlan0 up

iwconfig wlan0

iwl3945 wlan0 scanning ! loss

iwconfig wlan0 essid "-----"

iwconfig wlan0

ifconfig wlan0

client wlan0 (get IP)

ifconfig wlan0 down ← turn off

ifup wlan0

ifdown wlan0

ctrl_interface_group = hctdev
update_config=1

MSTSC

need to parse iwlist output

LCD code
Line # + delay + Text

Display IP ()
Set IP
Set DNS
Set Iface
Set

LCD Install on Pi;
Wrong Pi:

Apt-get install Rpi-core
cd /home/pi;
git clone git://github.com/wrongpi/wrongpi;

or (cd wrongpi;
 Set Build option)

(cd wrongpi;
 -/build

LCD Setup

LCD Moonbot

1. Release all current NXT
- 1.B find Joy stick
2. Scan all current NXT
3. Present list of Discovered NXT
4. Select and connect to selected NXT
5. Run NXT Control Software

O
O

current

selected Robot: - - -
NXT

Btscan → Btlist.conf. (list of Avail BT devices)

Btslct → Btslct.conf (selected BT device)

btPair → Pair to device in btslct.conf.

sh jtcomp3.sh nxtrjs2.c

sh run_jtz.sh

BTjS2d

3/21/13

Raspberry Pi: /webMSO AP setup

Apt-get install hostapd

Apt-get install iw

ASUS WiFi does not work w/ nl80211

Tenda W311M = Ralink RT5370

X Apt-get install dnsmasq

Apt-get install udhcpcd

WebMSO Setup

1. iw
2. Git-core
3. lighttpd
4. mini-com
5. Wifis-Pi
6. udhcpcd
7. hostapd
8. USBmount
9. Rules.d for MSO-28.

Sudo service hostapd start

Sudo service udhcpcd start

update-rc.d hostapd enable

update-rc.d udhcpcd enable.

WPA - Supplicant needs.

ESSID → ssid = " "

IE - WPA Version 1

group cipher TKIP

pairwise cipher (2) CCMP TKIP

Authentication Suite(1) : PSK

Encryption key: ON

Catch all network setup.

network = {
 ssid = "example"

 scan_ssid = 1

 key_mgmt = WPA-EAP_WPA-PSK_ IEEE8021X - NONE

 pairwise = CCMP_TKIP

 psk = " "

}

0x0a 0x0a

0x0a 0x0e9

Access

Default : dhcpcd
hotapd.
wlanQ static

lighttpd
Dnsby LCD.

hostapd.conf

interface = wlanQ

driver = nl80211

ssid = WebMS028

hw_mode = g

channel = 1

macaddr_acl = &

auth_algs = 1

ignore_broadcast_ssid = &

wpa = 2

wpa_passphrase = WebMS01928

wpa-key_mgmt = WPA-PSK

Additional signs on to existing network
lighttpd
Dnsby IP on LCD.
wlanQ dynamic

Read .conf on SD to change web
LCD needs to be able to Sartch
& Reboot.

etc/hostapd/hostapd.conf
WebMS028

/etc/network/interfaces.

interfaces - static - host
 interfaces - wpa - dhcpc. > copy to interfaces.

ifconfig wlan0 down
 ifconfig wlan0 up > reset ad resume wlan0 to talk
 (for non-wpa)

ifdown wlan0
 if up wlan0 > for wpa

wms0-host
 wms0-device

ms0-d / ifdown / ;arp
 ms0-h / ifconfig down / ifup.

Put sleep 1 or 2 between statements to wait for completion

/home/pi/sh wms0-host.sh
 /home/pi/sh wms0-device.sh

Apt-Get update

Apt-Get Install Joystick
~~Apt-Get Install JStest~~ JStest-gtk
~~JStest~~ /dev/input JSQR

USB: ?

Pwd: moonbot
Sudo -i

Apt-Get Install Bluetooth

Apt-Get Install BlueMan
hcitool

dmesg | tail

ls -l /dev/ttyS*

Apt-Get install libbluetooth-dev
00:16:53:0E:C9:97

Apt-Get install

↳ BlueZ

↳ BlueZ-utils

↳ wvdial

sdptool browse

↳ finds Avail Bluetooth device

00:16:53:0E:C9:97 ↳ old NXT 00:16:53:03:CA:76 new NXT

hcitool scan

1863

org/bluez/R73/00:16:53:03:CA:76

echo "1234" ! bluez-simple-agent hci0 00:16:53:0E:C9:97

(bluez-test-device remove 00:16:53:0E:C9:97

↳ /btinif

Apt-Get Install USBmount

apt-get install ~~firmware~~ firmware-atheros

update-rc.d filename defaults

update-rc.d BTJSd remove

/root/j+2 /dev/input/js2

move BTJSd to init.d ###

chmod 755 BTJSd be

#!/bin/sh de

exit 0

vim: noet

sshd

nano ~~nx~~ nx+btjs.c

sh j+comp2.sh

sh ~~run~~.runjs.sh

check chmod +x for related .sh files

DNM

b → d

END

USB mount

cd /dev/disk/by-id
ls -l > finds drive #

mkfs.vfat /mnt/usb
mount /dev/sd** /mnt/usb
c 1

cd /mnt/usb
df -h

dd with archive compression

umount /dev/sdb1

dd if=/dev/sdb1 | gzip > ~~path~~/home/huyeh/Moonbot-img/Moonbot13/004.8gb
compress

dd if=/dev/sdb1 | gzip > /home/huyeh/Moonbot-img/Moonbot13/004.8gb.img.gz

expand.

12:03
12:13 10ms.
gzip -dc Moonbot13/004.8gb.img.gz | dd of=/dev/sdb bs=4M

sync.

PV view memory elements

gzip -dc Moonbot13/008.8gb.img.gz | pv | dd of=/dev/sdb bs=4M

sh image2sd.sh

5/11/13

moonbot /pi /SD

1. Create Raspbian Image on SD
2. Configure for US keyboard / US loca1 - change Pi: Password to "moonbot"
3. Apt-get Update
4. Apt-get install Joystick, Bluetooth, Bluez, libbluetooth-dev, Bluez, Bluez-utils, wvdial, usbmount, ~~firmware~~ firmware-atheras, git-core
5. cd Home/pi;
6. git clone git://git.dragon.net/wiringPi;
7. cd wiringPi;
8. ./build

moonbot

User: pi;

Pwd: moonbot

Move BTJS3d to init.d

chmod 755 BTJS3d
Update-rc.d BTJS3d defaults.

BTJS3d. → /root/BTJS3.sh

BTJS3.sh	→ /root/btunpair	→ btunpair.c
	/root/btscan	→ btscan.c
	/root/btslct	→ btslct.c
	/root/btpair	→ btpair.c
	/root/yun-jSZ.sh	→

~~Run~~ Run-jSZ.sh → /root/jSZ → jSzcomp3.sh

↳ nxbtjs2.c
-l bluetooth
-lwiringPi

sh movefile.sh will move all files from USB key to /root after that needs to action own process

umount /dev/sdc1

dd bs=4M if=/home/Hugh/Moonbot-img/Moonbot130511.8gb.img of=/dev/sdc

Sync.

MSO28G11.C(g)

network loop time

check the stat wait time 100

68, 63, 707, 7 / 78, 69, 223, 6

500

1000

75, 72, 212, 5 / 83, 75, 215, 8

10

in highway

Remove write file in Triggent saves 50-Goms.

Remove Read buff saves another 70ms

MSO-Plot.js. reduce mos. return update interval
from 70ms to 20ms.

$$47/20sec. return MSO = Int + V = 70ms$$

$$57/20sec. return MSO = Int + V = 10ms$$

$$53/20sec. return MSO = Int + V = 20ms$$

$$Standby MSO = 10$$

$$\text{start Ray MSO} = 10 \approx 60 \text{ captures / 20 sec.} = 333ms$$

$$return MSO = 10$$

$$\text{Remove write MSO data gains } 64/20sec = 312.5ms$$

web msr

Apt-get update

Apt-get install Nghttpx

thttpd download from source extar to /home/pi

• configure

• make

make install

change setting to getacb in /extra/passwd C
mcdw /usr/local/man/man1/makeweb.1

groupadd www

/usr/local/sbin



/usr/local/www

/usr/local/www/cgi-bin

group www

cp /usr/local/sbin/thhttpd /etc/rad

• /config --host=arm-linux

make

makeinstall

cp thhttpd /usr/local/sbin

Create thhttpd.config in /etc

dir=/www

user=root

cgipat=/cgi-bin/*

logfile=/tmp/thhttpd.log

pfile=/tmp/thhttpd.pid

Add Session ID to
trigstart reg

thhttpd -C /etc/thhttpd.config

mkdir -p /var/www/cgi-bin

cd /home/pi;

git

git-get install git-core

git clone git://git.dragon.net/wiringPi;

cd wiringPi;

-/build.

Build LCD5 move it to /home/pi;

Setup

copy wpa_supplicant.conf

copy network/*.conf

copy HostAPd/*.conf

copy LCD4,5 and copy *.sh to /home/pi;
wiringPi, LCD-IP

run ./LCD5

edit /etc/default/hostapd

DAEMON_CONF = "/etc/hostapd/hostapd.conf"

/etc/default/ifplugd

Interface = "eth0"

Hot-Plug-Interfaces = "eth0"

Session ID T = 17

a = 28

T = 29

Data = CSV.gz

136.9809140175

2141483647

Arm = Sida

Caprol = hamet sida

MSU28

Need Nark

 $\text{sid} = \text{xxxx}, i = t.$ $\text{sid} = \text{xxxx}, i = a \text{ or } A$ stores current sid in tx↳ $i = t$, wrong sid gets Nark. $i = a \quad 28$ $i = t \quad 29$

set data

 $i = t \quad 17$ $\text{sid curr} = \text{sid RX}$ $\text{sid TX} = \text{sid curr}$ $\text{sid TX} = \text{sid curr}$ $\text{sid TX} = \text{new sid TX}$

MSODatasidcurr.csv

 $\text{sid} =$ $i = t$

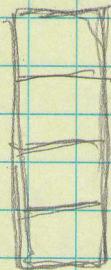
MN ~ if ok



No return before

 $\begin{array}{c} \leftarrow \text{IN} \\ \downarrow \quad \text{29 new} \\ \quad \quad \quad \text{data} \end{array}$
 $\begin{array}{c} \text{STD.} \\ \text{(stat,} \quad \text{)} \\ \downarrow \\ \text{arm,} \end{array}$
 $\begin{array}{c} \text{NO} \\ \text{arm} \Rightarrow \end{array}$
 $\begin{array}{c} \text{lock} \\ \text{release} \Rightarrow \text{release} \end{array}$
 $\begin{array}{c} \downarrow \\ \text{a} = \text{SID} \end{array}$
 $\begin{array}{c} \text{SID open} \\ \text{SID read} \\ \text{STD wr.} \end{array}$

Armed armed

 $= a = \text{Force. delay}$  $\text{if GO} = T$ 

read file name Go + Try mode
read file ?
Want

 $\begin{array}{c} \uparrow \text{Go} \\ \downarrow \\ \rightarrow \text{write Stat file} \end{array}$

- write Data file

10

5/20/13

Read C
check they start
Inot M50 Port
Inot M50 - Read SPI ROM
check they start
store TS.1XT
if GL

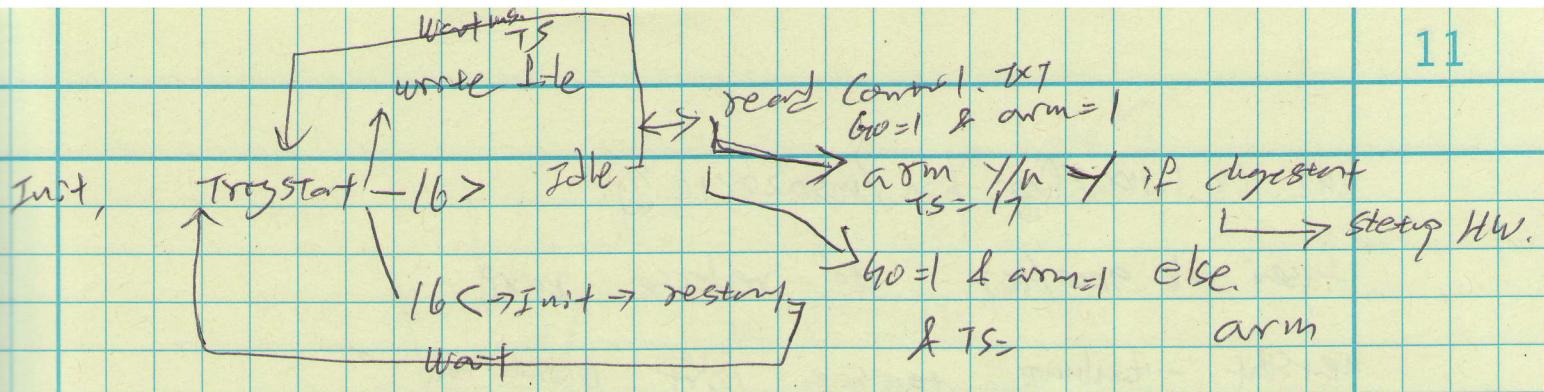
```

graph TD
    A["if keep"] --> B["TS"]
    B --> C["resent TS.TXT"]
    B --> D["read"]
    D --> E["GL, TXT"]
    D --> F["mail Read"]
    D --> G["DO stuff"]
    G --> H["DO stuff"]
  
```

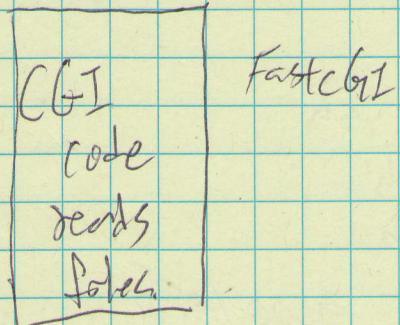
TS.TXT
GL.TXT
450504.TXT
MSDOS9,CS V
Mode.TXT

The diagram illustrates the flow of a C program:

- Start**: The program begins.
- File Read**: The program reads from a file named `MSOShare.TXT`.
- Loop**: A loop starts with the label `loop`.
 - Access**: The program checks if it has access to the file (`if no(fopen)`).
 - Write**: If access is granted, the program writes to the file (`store TS, TXT`).
 - Get Int**: The program gets an integer input (`Get int = G`).
 - Decision**: The program then decides based on the value of `G`:
 - If `G <= 0`, the program ends.
 - If `G > 0`, the program loops back to the `loop` label.
- End**: The program concludes.



how to do TSR
on Linux.



Debraan feg:

Apt-get install fcgiwrap

cd sites-available / default

/usr/share/doc/agmx-doc/exa

Cars |

wget http://www.fastcgi.com/dist/fcgi-current.tar.gz
tar xvzf fcgi-current.tar.gz

$$cd \ f_{CG} = 2.4, 0$$

- /configure

make
make

< need to add #include <stdio.h> to
include /fcgi.h

```
gcc -o hello fcgi:test1.c -lfcgi
```

```
spawn-fcgi -a 127.0.0.1:9000 -n ./hello
```

<http://192.168.1.19/> - bin

change fcgi location in etc/nginx/sites-available/default

location /fastcgi-bin /msoclient.cgi{
include fastcgi_params;
fastcgi_pass 127.0.0.1:9000

192.168.1.10 /fcg;-bon/ms028ctl.cgi:

fuser -k 9000/tcp to release port.

netstat -tulnarp to see port owners

fcgi still too slow. needs 170ms per (Readbuff + writefile)

makems02.sh

MSOCOPY6.sh

SPAWN2.sh

fuser -k 9000/tcp

Propose new fcgi loop

thermocal max capture /sec

$460800/10 = 46080 \text{ bytes} / 4096 \text{ Bytes} \approx 10 \text{ caps/sec}$

trigstart read temp = 3ms ≈ 3 USB frames

Arm + SID. When Rdy MSOdata + SID.

if clk w/ current SID. Start Auto transfer
else report current trig start.

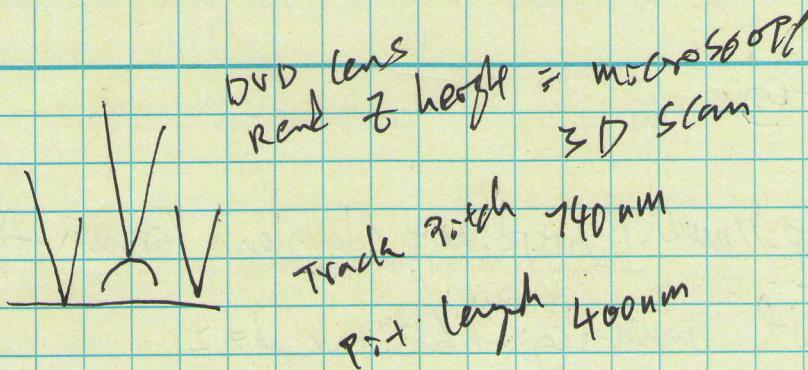
Armed SID

currSID.

```

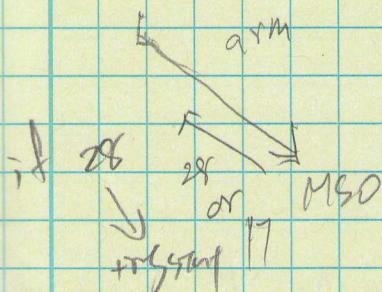
> i:=a SID = store
  if currSID proceed from 22 to 29
  else return 22
  i:= i + 1
  return 29 + SID.
  get readback MSOdata+SID.CSV
  i:=

```

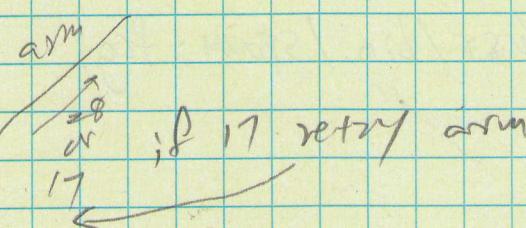


MSO Control Priority

USER 1



USER 2



arm start = 1 when arm

= 0 when writeData is done

↑
need time to clear
clear when Init. or Command

Need to have arm wait

MSO Busy

Raw mode 38

make raiddrive for MSO data *

{ mkdev /mnt/tmp
mount -t tmpfs -o size=20m /mnt/tmpfs /mnt/tmp
ln -s /mnt/tmp /var/www/cgi-bin /tmp

spawn-fcgi;

wget http://www.lighttpd.net/download/spawn-fcgi-1.6.3.tar.bz2

tar -xvjf spawn-fcgi-1.6.3.tar.bz2

cd spawn-fcgi-1.6.3

./configure

make

cp src/spawn-fcgi /usr/bin/spawn-fcgi;

cd /var/www/fcgi-bin

spawn-fcgi -a127.0.0.1 -p9000 -n -d /var/www/fcgi-bin/ms028ct1.cgi;

spawn-fcgi; 1

↳ maybe on /usr/local/bin

↳ chmod +x /etc/init.d/spawn-fcgi; 1
 /etc/init.d/spawn-fcgi; 1 start

update-rc.d spawn-fcgi; 1 defaults

need to add /usr/local/lib to Path

X export PATH=\$PATH:/usr/local/lib

Apt-get install libfcgi-dev

Password // change root password

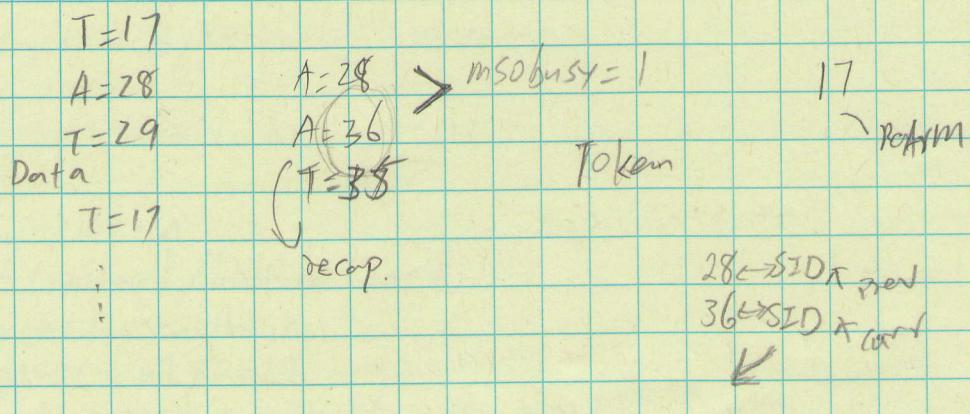
Sticky MSD
→ No go

if go

if NC
else

if no data & no segm & NO but off

else (if data)



/usr/bin/~~fcgi~~ spawn-fcgi:

find / -name spawn-fcgi;

/etc/alternatives/spawn-fcgi;

/var/lib/dpkg/alternatives/spawn-fcgi;

/usr/bin/spawn-fcgi;

/usr/share/doc/spawn-fcgi;

Wireless
iwconfig

hostapd
hostapd.conf

WPA-Supplicant

Ralink RT5370

/etc/apt/sources
add "deb http://http.debian.net/debian/ wheezy main contrib non-
apt-get update & apt-get install firmware-ralink

/etc/init.d/networking restart

apt-get install hostap-utils

Tenda W311N

/etc/hostapd/hostapd.conf.

interface=wlan0

driver=n180211

ctrl-interface=/var/run/hostapd

ctrl-interface-group=0

ssid=Web MSO28

hw_mode=g

channel=1

beacon-int=100

auth-algs=1

wmm-enabled=0

dealing hostapd using "hostapd /etc/hostapd/hostapd.conf."

1/24/13

udhcpd + hostapd elinux.org / RPI - Wireless-Hotspot

apt-get install hostapd udhcpd
 /etc/udhcpd.conf

```
Start 192.168.0.20
end 192.168.0.30
interface wlan0
deurning YES
opt dns 8.8.8.8 4.2.2.2
opt Subnet 255.255.255.0
opt Router 192.168.0.1
opt lease 864000
```

/etc/default/udhcpd

```
# DHCPD_ENABLED = "no"
```

/etc/network/interfaces

```
iface wlan0 inet static
  address 192.168.42.1 192.168.0.1
  netmask 255.255.255.0
```

```
# allow-hotplug wlan0
# wpa-roam /etc/wpa-Supplicant/wpa_supplicant.conf
# interface default inet dhcp
```

/etc/hostapd/hostapd.conf

```
interface=wlan0
driver=n18n211
ssid=WEBMSO28
hw_mode=g
channel=1
macaddr_acl=0
auth_algs=1
ignore_broadcast_ssid=0
wpa=2
wpa_passphrase=WMSO1928
wpa_key_mgmt=WPA-PSK
wpa_pairwise=TKIP
wpa_psk=
```

open network

```
interface=wlan0
ssid=WEMHSO28
hw_mode=g
channel=1
auth_algs=1
wmm_enabled=0
```

/etc/default/hostapd

DAEMON_CONF="/etc/hostapd/hostapd.conf"

/etc/lsysctl.conf

net.ipv4.ip_forward = 1

\$ &

iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE
 iptables -A FORWARD -i eth0 -o wlan0 -m state --state RELATED,
 ESTABLISHED -j ACCEPT
 iptables -A FORWARD -i wlan0 -o eth0 -j ACCEPT

/etc/network/interfaces

up iptables-restore < /etc/iptables.ipv4.nat

service hostapd start
 service udhcpc start

update-rc.d hostapd enable
 update-rc.d udhcpc enable.

Apt-get install psmisc
 ps aux

modprobe 8192cu

RTL8188 ~~EF~~ obda:4176
 CTV

"Cat /etc/debian_version" to find Debian version

/etc/apt/sources.list

deb http://http.debian.net/debian wheezy main contrib non-

apt-upgrade & apt-get install firmware-renesas

DNSMasq

apt-get install hostapd iw dnsmasq

apt-get install hostapd iw dnsmasq

/etc/dnsmasq.conf

domain-needed

bogus-priv

no-resolv

server=8.8.8.8

server=8.8.4.4

cache-size=4096

local=/home/

expand-hosts

domain=home ↗ link MSO

dhcp-range=192.168.0.20, 192.168.0.30, 255.255.255.0, 14d

optional → # dhcp-option=option:router, 192.168.0.2

dhcp-option=252, "\h"

log-facility=/var/log/dnsmasq.log

log-async

log-dhcp

/etc/hosts

192.168.0.1

MSO28

this puts a name to the device on 192.168.0.1

/etc/init.d/dnsmasq restart

ifup wlan0

webmso.home

webmso28.home

↓ Display

boot.scr , script.bin, uimage (17Meg) LXDE

rescue folder, boot.cmd boot.scr system.bin system.flx. (31MB)

Resc

apt-get autoremove hostapd

wget https://github.com/jenssegers/RTL8188-hostapd/archive/v1.1.tar.gz
tar -zxf v1.1.tar.gz

cd RTL8188-hostapd-1.1/hostapd

make

make install

Service hostapd restart

hostapd needs to be last.

needs ~~ifup~~ wlan ifdown ifup

/network/interfaces

(auto wlan0) will cause ifdown wlan0 + ifup wlan0

Remove ~~ifup~~ /etc/udev/rules.d/70-persistentnet.rules

so SD Image will not remember ~~to~~ WiFi MAC Address

it will always assume internal WiFi module to be

~~wlan0~~

/lib/udev/write_net_rules

persistent-net-generator

Mac realtek 00:92:C3:AF:E8:C2

~~Hibernate~~

/lib/udev/rules.d

75-persistent-net-generator.rules

ignore: Mac 00:92:C3:AF:E8:C2

dd if=sunx-spl.bin of=/dev/sdb bs=1024 seek=8
 dd if=v-boot.bin of=/dev/sdb bs=1024 seek=32

9/25/13

DNS masq problem

/etc/dnsmasq.conf

look at ip lease range and time.

/var/log/dnsmasq.log.

Ip lease table

/var/lib/misc/dnsmasq.leases

/etc/host

No network connection the date reverts to Dec 31
 So ~~old~~ old leases don't clear

Apr 29 in /etc/dnsutils.

nslookup 192.168.0.1 localhost

send

15963	a
16016	a
16016	t
15963	t
msgdata	16016
wrong.	

return

15963	28
15963	36
15963	35
15963	29

}

Bad sessn

29 write data done
 35 wrong session
 36 can not arm
 28 arm accepted.

16218	a
16218	t
msgdata	16218

16218	28
16218	29

}

good sessn

IO32XX

Flash LED

GPIOwrite 0x20

GPIOwrite 0x10

GPIO6=1 GPIO5=0 PWR off
 GPIO6=0 GPIO5=1 PWR on

IOCTL_GPIOwrite(x) = 0x8B

Device ID

VID 0x3195

PID 0x0025

00000000		
100		off
010		on
89	1000	1001
8B	1000	1001

/usr/include/libusb-1.0/libusb.h
 /usr/local/usb
 libusbX
 LIBDIR
 /etc/ld.so.conf

IN	0x00	0x0C	0x80	0x00	0x00	0x00	0x00	1 1 1 0	0x01 0x01
out	0x40	0x0C	0x80	0x0f	0x00	0x01	1 1 0 0	0x04 0x01	
out	0x40	0x0C	0x80	0x10	0x00	0x04	1 1 0 0	0xC2 0x01	
out	0x40	0x0C	0x83	0x00	0x00	0xC2	0 0 1 1	0x70 0x01	
IN	0x00	0x0C	0x84	0x00	0x00	0x00	0 1 0 0	0x10 0x01	
0x40	0x0C	0x89	0x00	0x00	0x00	0x70	1 0 0 1	0xC1 0x01	
0x40	0x0C	0x86	0x00	0x00	0x00	0x10	1 0 1 1	0xF 0x01	
0x40	0x0C	0x83	0x00	0x00	0x00	0xC1	0 0 1 1	0x8F 0x01	
0x40	0x0C	0x85	0x00	0x00	0x00	0x0F	0 1 0 1	0x8B 0x01	
0x40	0x0C	0x85	0x00	0x00	0x00	0x8F	0 1 0 1	0x8F 0x01	
0x40	0x0C	0x85	0x00	0x00	0x00	0x8B	0 1 0 1	0x0F 0x01	
0x40	0x0C	0x85	0x00	0x00	0x00	0x8F	0 1 0 1	0x0F 0x01	
0x40	0x0C	0x85	0x00	0x00	0x00	0x0F	0 1 0 1	0x0F 0x01	

↑

0 0 0 0 0 0 0 0

↑ 0 0 Standard
 0=H>D 0 1 class
 1=D>H 1 0 vendor
 1 1 RESERVE

IO3200 port 0x40 0x0C 0x89 0x00 0x00 0x70 1 (0 0) 1 0111
 off {0x0 0x40} 0x0C 0x86 0x00 0x00 0x20 1 (0 1) 1 0010
 req request Value index reserve

out 3250.CPP

Index + 6 set VID / PID

	offset	length	data	index	return
Index + 3	8E	1	0x14	0	①

hLwrite (0x0F 0x01)

Addr Var

0x8C	0x01	0x01	0x0F
------	------	------	------

write (0x10, 0x04)

~~write~~

write EPP Addr, Port (0xC2)

write (0x00, 0x01, 0xC2)

offset 0x83,

length 0x01

data 0xC2

Test.USB.

Read GL Read EPPdatafromPort()

0x84,

~~write~~ I2C (0x98, 255)

Usbwrite 0x83,

USB write command!

USB Read device

i032xx6 -DPACKAGE_DATA_DIR = " \$(pkgdatadir:vr) "\\"
 -Wall -g

NO Lib

AM_CPPFLAGS = \\\n -DPACKAGE_DATA_DIR = " \$(pkgdatadir:vr) "\\"

AM_CFLAGS = \\\n -Wall \\\n -g

bin_PROGRAMS = i032xx6

i032xx6_SOURCES = \\\n main.c

i032xx6_LDFLAGS =

for

/dev/bus/usb/xxx/xxx needs to have ownership
 for fpdf example to work. root:hangel group

Libudev systemd-devel < missing libudev
 for Fedora 19

recompile libusb-1.0 and install

/run/media to access USB drive in fedora

Giving write access to usb device ~~on~~ on
 bus also works. 0666 instead of 0664

/lib/udev/rules.d/

Action == add SUBSYSTEM==USB ATTR

udevadm info -a -n /dev/bus/usb/100/013

Renamed 75...rules to 10...rules make

i032xx6 ~~not~~ work

10-libusb.rules

```
SUBSYSTEM=="usb", ATTR{idVendor}=="3195", ATTR{idProduct}=="0025"
    MODE="0666", SYMLINK+="IO3288A"
```

Plug-config
--list-all
-L libusb-1.0

-L /usr/local/lib -lusb-1.0
↑

Put these in ~~the~~ ecl.pse Project/Build/Settings
Categories / Libraries
Project/Properties/C/C++ Build/Settings/Plug-Config/libusb-1.0

Install ecl.pse

Install eclipse CDT

Install libusb

Install ecl.pse-CDT-Plug-Config

Install Libusb-1.0

Linux Mint Take update

Install libusb

Install gsf

Install base-d-essential

Windows/preferences/c/c++/build/settings/discovery

Glade - Gtk Gui builder

"Gtk-WARNING": Cannot open Display

Profile/Run/Debug settings/switch (edit) /environment / add
DISPLAY var "": Q.Q"

screen /dev/fyUSBQ 115200

Backup

```
# dd if=/dev/sdb conv=sync,noerror bs=4M | gzip -c > xxx.img.gz
# fdisk -l /dev/sdb > xxx.info
```

Restore

```
# gunzip -c xxx.img.gz | dd of=/dev/sdb
```

git add . or git add -all

git status

git commit -m "msg"

git remote add origin

git init

git add README.md

git commit -m "first commit"

git config --global user.name "tkrmnz" or "John Yeh"

git config --global user.email "tkrmnz@gmail.com"

git remote add origin https://github.com/Tkrmnz/WebMSO28B.git

git push -u origin master

git clone https://....

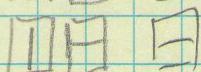
jghenj.js

jghenj.flat.js

jghenj.flat.crosshair.js



:ui-icon-arrow-2-h-s



:ui-icon-arrow-2-e-w



8/5/13 Part 1 carry

Part 1 carry

target pp:

Attiny 85

soft I²C → LED, ADXL

Hardware FWI / I²C = inter devices.

global/slave Address = 0x3F → I²C Address 0011111
local/slave Address = 0x01, ..., 0x05

Byte 0 = 0xC7

= 0xC8

= scenario Occurrence # of times = n

2 = ~~TSB delay + 1~~ MSB ccs + LSB

① n

buf[0]

buf[1]

buf[2]

4 bytes

4 bits = color

4 bits = hit count

1 byte = target expire (on time)

= C9 = Arm.

↑↓ n

↑↓ n

↑↓ n

Yellow 0 +5

Red 0

Green 0

I²C 0 GND

Global Addr 63 0x3F
Game_check 199 0xC7
Game_Data 200 0xC8
Game-Arm 201 0xC9

3F 05 01 00 00 04 01 FF
C9

Gpio load I²C

I²C detect - 1 1

I²C gay

I²C set

I²C dump

(3F) 05 C7C8 0100 10 04 01 77 C9
① 02 ↑ ← color h.4 |
exp time

0x37

check 0xC7

Data 0xC8

size

AVR stand 0

TSP clock = 250 kHz

Non
Interactive Bus
↓

I2Cdetect -Y 1

I2Cset -Y 1 0x3f 0x01 0xc7 0xc8
 ↑ bus Addr
 Bus Addr

change from soft to long pattern to busy
 Bulk.

0 MSB + LSB time delay
 (color (4Bots) + hot count 4Bots)

[0 0 0 0] [4 Bots]
 0 & 7

expne time 167us

example

I2Ctest -Y 1 0x3f 0x01 0xc7 0xc8 0x01 0x00 0x40 0x11 0x10 ;
 0x31
 32
 33
 34
 35

loop

Payload

$\frac{24}{4}$
 $\frac{96}{5}$
 111

28
~~0x28~~

load
scanner

0x20 0x21 0x72
 Global local local

1 2

occurred
 ↓ delay color time out

1 1
 bits.

→ I2Cset -Y 1 0x12 0xc7 0xc8 0x01 0x00 0x10 0x71 0x20 i

Arm

I2Cset -Y 1 0x12 0xc9

Set SCLM (PB2) to low to activate all targets.

GPIO mode 9 out / GPIO write 9 0

GPIO mode 9 Alt0 / GPIO write 9 1

apt-get install libi2c-dev

0x07 # of screen

0x10-F screen 1-4

0x20 screen 5-8

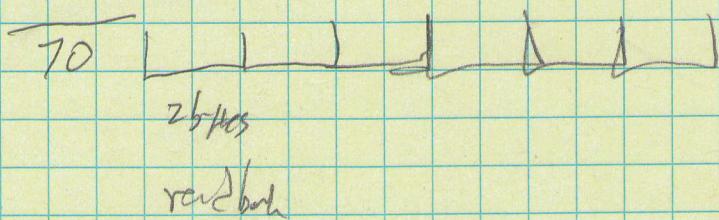
3 0

4 0

5 0

6 0

24 screen
total /



0xC9 arm, 00 01

0x67 reset 00 01

0xC8 load 00 01

9/18/13 Raspberry Pi + Node.js.

Node.js /home/pi/app/server.js.

Apt-get install monicom

@LDS~^PNP~ Reset ADC
Board range 460800

@LDS~NQ~ Polarity

PS tree

ps aux | grep node

kill -9 process_ID (2nd from left)

Kill node with Ctrl-C

NPM install serialport

Apt-get install usbmount

(usbdrive data is at /media/pi)

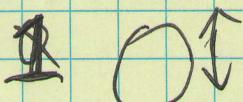
9/27/13
moonbot

~~unplug Jay Stock to enter login screen~~
~~otherwise shift into the P;~~

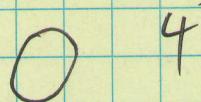
~~gamepad /dev/input/js0
Jstest /dev/input/js0~~

~~steelseries 360 C mode = Red.~~

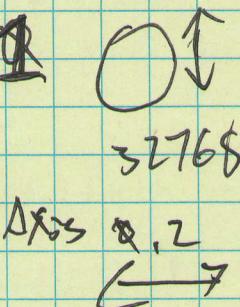
Axis -32768



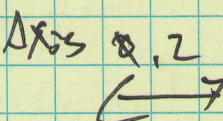
-32768 Axis



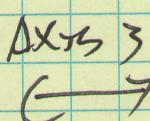
Btn 1 = Button Q



Btn 3 = Button Z



Btn 9 = Button 8



Btn 10 = Button 9

sudo nano nxfbt.js2.c
sh j+comp3.sh
sh run-jsc2.sh

~~error trapping~~

hcitool dev
should report hc: & 00:02:72:D8:79

~~Bob~~ USB update

usb drive /dev/sda1
/media/usb

/media/usb/mk_update/mkupdate.txt

sh update-setup.sh from moonbotizing drivers
then update via usb key

md5sum /dev/sdb > /home/hwyleh/Moonbot-ing/131029-md5sum

md5sum /dev/sdb > /home/huyeh/Moonbot-img/orig_13/029-md5

md5sum Moonbot/13/029b.img > image_13/029-md5

gzip Moonbot/13/029b.img

10/16/13

git config -l list ~~and~~ identities

git log

git log --stat

git remote set-url origin https://github.com/tkernaz/ms028fig

git pull https://github.com/tkernaz/ms028fig:..git

git push origin master

git init

git add

git commit

git push origin
 -u

git fetch

git pull to sync with remote repository

sudo raspi-config to change to start X

LCD.

Ether IP.

WIFI mode. HostAP + Dev ID + Dev IP.

Raspi-config

11/4/13

Part + barr

I2C needs bandrate chose from 100k to 32k.
 At my 88 is not fast enough to handle 100k

modprobe -r i2c-bcm2708

10000 40000

modprobe i2c-bcm2708 bandrate=32000

cat /sys/module/i2c-bcm2708/parameters/bandrate

echo 10000 > /sys/module/i2c-bcm2708/parameters/bandrate

/etc/modprobe.d/ I2C.conf add options i2c-bcm2708 bandrate

=32

10000

Target + arm — complete
↓ timeout.

0x10 → Global arm

0x12 → local

read brch.

Read brch.

multi: device

addr mode
CMD ~~top CMD. Index~~addr CMD Index time L
- Index time H

Index [] 16 bits

look for SDA = 1
SCL = ↑After arm SDA = 0
SCL = 0

delay time colour bytes. + memory

16 bits 4 3 43 \$10

C 32 bits

D

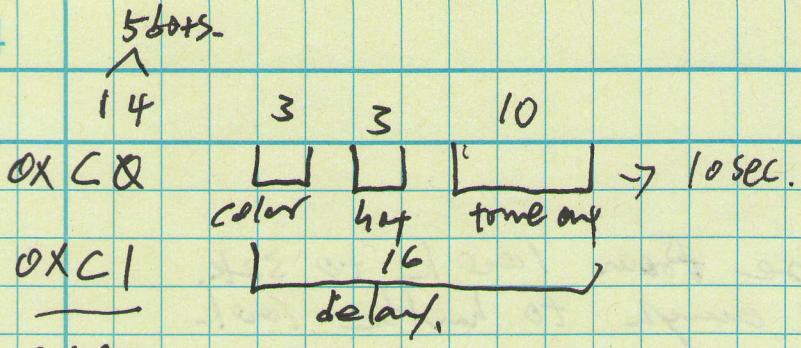
ZIFPROM 512 Bytes

Raw 512 Bytes

SZ = 16

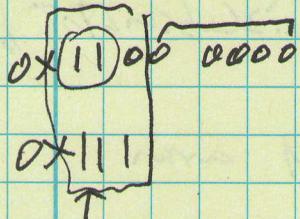
C [X] → write #

D 1 1



0xC3

Time out 10ms. 16 bits gives 658 secs. for 10 minutes
 0010



- w 0x000 - 001 = color/hot / timeout 32
- w 0x010 - 011 = time delay 32
- R 0x100 - 101 = reaction time 32
- w 0x110 = 00000000000000000000000000000000 = white
 0x110 = 0x00 0x0X

0x2, 4 0x20
0x00000000 00100100 00100000

loop scenario units |

Global

GO.

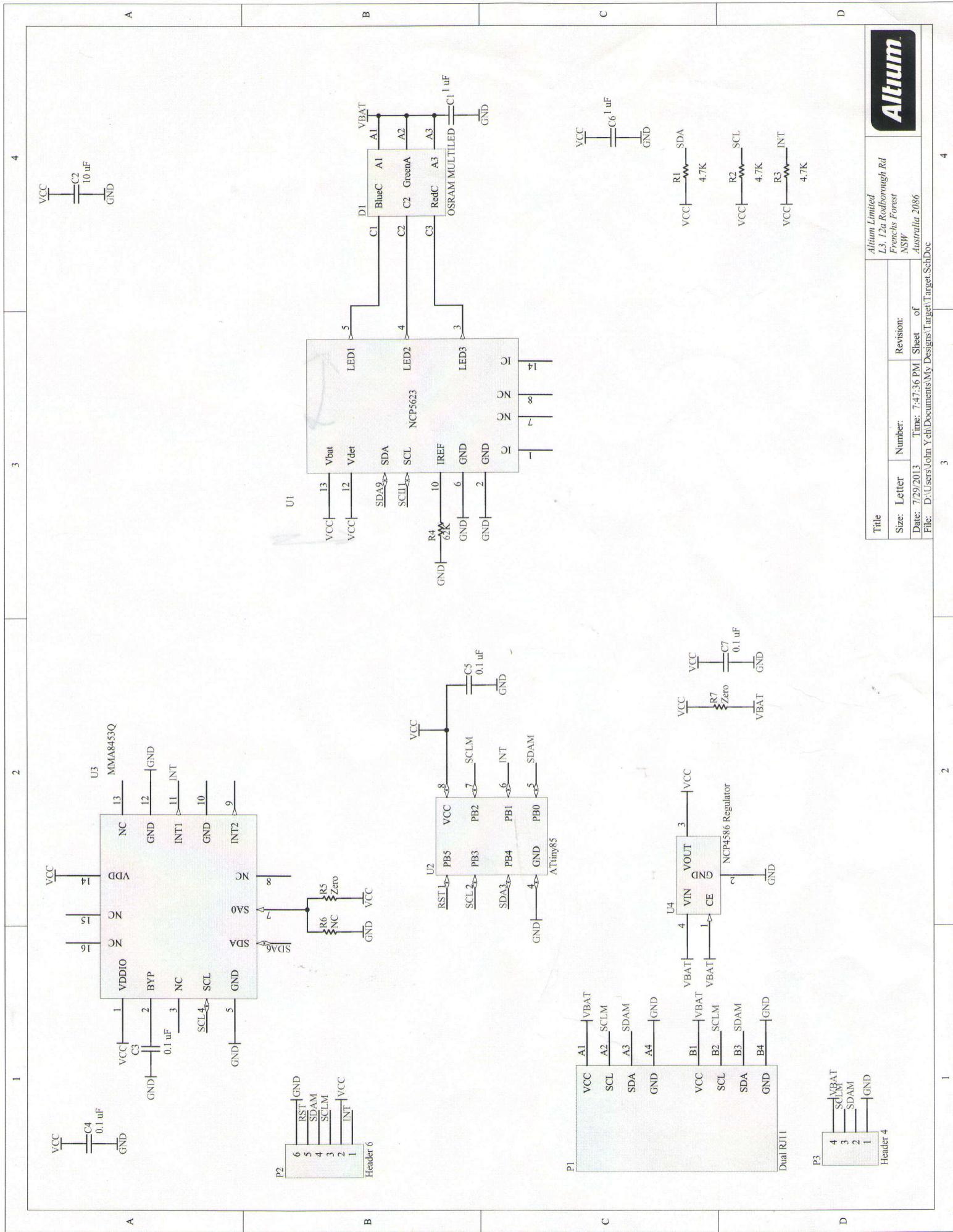
while zcount > 52 or color/hot != 0x00

0x00
 0x00
 0x40
 0x40
 0x80
 0x80
 0x00

(f+2, 0x40, 0x1000)

(f+7, 0x00, 0x2420)

stable Board ball = 0x00



Title

Altium Limited
13, 12a Radborough Rd
Frenchs Forest
NSW
Australia 2086

D

Altium

Baja_Register1.txt

Baja control registers

Simulated Serial port, Virtual Com port -> USB -> Parallel FPGA

Baud Rate 460800, 8N1

Buffer threshold 3072

(DSO, LA control registers)

0x00

0x01R

Buffer Data 1024 x 4 words

every four byte reads = 1 position :10 bits(DSO) x 2 + 8 LA bits + 1 USB bit

+ 3 dummy bits

0x02R

Trigstat (0..3)

0000 - DSO reset

0001 - Waiting for Arming

0010 - Armed

0011 - Filling Pretrigger buffer

0100 - Filling complete waiting for Trigger event to happen

0101 - Trigger happened, filling post trigger buffer

0110 - Capture complete, waiting for data read command

0111 - Reading Buffer

1000 - Waiting for End of read buffer

4 - PwrDn reg readback

5 - SDO_ADC

6 - SDO_Mem

7 - not use

0x03 0..7 - DSO TrigVal(0..7) LSB

0x04

0,1 - DSO TrigVal(8,9)

2 - MagTrigs1p 1= True/Rising, 0 = False/Falling

3, 4 - TrigValseL

00 - Ch 0

01 - Ch 1

5,6 - TrigModeSel

00 - DSO Magnitude Trig

01 - DSO Width Trig Less Than

10 - DSO Width Trig Greater or Equal

11 - Not used

7 - not used

0x05 0,2 - Trigchselval

000 - ChA

001 - ChB

010 - Logic

011 - nc

100 - SPI

101 - I2C

110 - nc

111 - nc

3 - LogTrigs1p

4 - DC Relay Ch0, 0 = AC, 1 = DC

5 - DC Relay Ch1, 0 = AC, 1 = DC

6 - Attn Ch0, 0 = /10, 1 = /1

7 - Attn Ch1, 0 = /10, 1 = /1

0x06

0 - SCLK

1 - SDIO

2 - CSB (active H)

Baja_Register1.txt

3 - CSDAC1 (active H)
4 - CSDAC2 (active H)
5 - CSMem (active H)
6,7 - Not Used

0x07 0..7 - TrigPos(0..7)
0x08 0..7 - TrigPos(8,15)

0x09 0,1 - Clk source select 00=50Mhz, 01=100Mhz, 10=200Mhz, 11= 20Mhz and below
2,7 - ClkDiv bit 8,13

0x0A 0..7 - ClkDiv bit 0..7 (Clk rate = 100 Mhz / (ClkDiv-1))
0x0B 0..7 - TrigwidthVal(0..7)

0x0C 0..7 - Logic Tirgger Val
0x0D 0..7 - Logic don't Care, 1 marks the bit position of don't care bit

0x0E 0 - FSMReset 1= resets DSO FSM (pulse on write to reg)
1 - Armed DSO 1= Arms DSO for capture (pulse on write to reg)
2 - ReadMode 1= Buffer Read Back, 0= DSO
3 - TrigEnd 1= Forces a fake trig (pulse on write to reg)
4 - PwrDn 1= power down default = 0
5 - not use
6 - ADCRst 1= Reset ADC default = 0 needs software pulse
7 - not use

0x0F *0 - Alternate Address Page 1
*1 - Alternate Address Page 2
2 - not used
3 - not used
4 - TrigOutSel, 1 = Cal 1khz out 0 = TrigPulseout, Default = off
5 - SlwClkMode, 1 = On, 0 = Off, Default = Off
6 - Glitch Trigger, 1 = On, 0 = Off, Default = off
7 - Auto Trigdone reply control, Default = off

*(Pat Gen registers)

*Alt_1 0x00

*Alt_1 0x01

*Alt_1 0x02 0,1 - PatClk source select 00=50Mhz, 01=100Mhz, 10=200Mhz, 11= 20Mhz and below
2,7 - PatClkDiv bit 8,13

*Alt_1 0x03 0..7 - PatClkDiv bit 0..7 (Clk rate = 100 Mhz / (PatClkDiv-2))

*Alt_1 0x04 0..7 - Pat Gen Start Address(0..7)

*Alt_1 0x05 0,1 - Pat Gen Start Address(8,9)

*Alt_1 0x06 0..7 - Pat Gen Stop Address(0..7)

*Alt_1 0x07 0,1 - Pat Stop Address(8,9)

*Alt_1 0x08 0 - Pat Gen Repeat Mode 1= repeat, 0 = one shot
1 - Pat Gen buffer Write Enable
2..3 - Pat Gen start mode 00 = off, 01 = Armed, 10 = TrigPulse, 11 = Manual/Pat Gen Start

*Alt_1 0x09 0 - Pat Gen Start

*Alt_1 0x0A 0..7 - PatGen Buffer Data In (auto increment of FIFO address)

*Alt_1 0x0B 0 - Pat Gen I/O bit for given buffer address. 1 = Out, 0

*Alt_1 0x0C 0..6 - PatGen Loop Cnt, need min of 1 for one shot

*Alt_1 0x0D PG Byte I/O CTL, 1 = Out, 0= In

*Alt_1 0x0E

Baja_Register1.txt

*Alt_1 0x0F registers

(Serial Trigger Registers)

*Alt_2 0x00 Serial Trigwd (31 downto 24) first bits to enter the shift register

*Alt_2 0x01 Serial Trigwd (23 downto 16)

*Alt_2 0x02 Serial Trigwd (15 downto 8)

*Alt_2 0x03 Serial Trigwd (7 downto 0) last bits to enter the shift register

*Alt_2 0x04 Serial Trigwd Ignor(31 downto 24)

*Alt_2 0x05 Serial Trigwd Ignor(23 downto 16)

*Alt_2 0x06 Serial Trigwd Ignor(15 downto 8)

*Alt_2 0x07 Serial Trigwd Ignor(7 downto 0) 10 bits(DSQ) × 2 + 8 LA bits + 1 USB bit

*Alt_2 0x08 0,1 - SPI Mode

0x02R 00 - Mode 0

01 - Mode 1

0000 - D

10 - Mode 2

0001 - Mode 3

0010 - Armed

0011 - SPI Trigdata Source, 0 = SI, 1 = SO, default = SI

0100 - Not used

0101 - Trigger happened, filling post trigger buffer

0110 - Capture complete, waiting for data read command

0111 - Reading Buffer

1000 - Waiting for end of read buffer

4 - PwrOn req readback

5 - SDQ_ADC

5 - SDQ_Mem

7 - not use

0x03 0..7 - DSO Trigval(0..7) LSB

0x04

0..1 - DSO Trigval(8..9)

2 - MagTrigSel 0= True/Rising, 0 = false/Falling

3, 4 - TrigvalSel

00 - ch 0

01 - ch 1

5,6 - TrigedgeSel

00 - DSO Magnitude Trig

01 - DSO width Trig Less Than

10 - DSO width Trig Greater or Equal

11 - Not used

7 - not used

0x05 0..2 - Trigchselval

000 - CHA

001 - CHB

010 - Logic

011 - DC

100 - CHC

101 - CHD

110 - CHE

111 - CHF

3 - LogTrigSel

4 - DC Relay Ch0, 0 = AC, 1 = DC

5 - DC Relay Ch1, 0 = AC, 1 = DC

6 - Attn Ch0, 0 = /10, 1 = /1

7 - Attn Ch1, 0 = /10, 1 = /1

0x06

0 - SCLK

1 - SDT

2 - CSB (active H)

Iniki_Register2.txt

Iniki control registers

(DSO, LA control registers)

0x00

0x01R

Buffer Data 1024 words

every three byte reads = 1 position :6 bits x 3 = 18bits, 10bits for DSO

(LSB), 8 bit for LA

0x02R

TrigStat (0..4)

0000 - DSO reset

0001 - Waiting for Arming

0010 - Armed

0011 - Filling Pretrigger buffer

0100 - Filling complete waiting for Trigger event to happen

0101 - Trigger happened, filling post trigger buffer

0110 - Capture complete, waiting for data read command

0111 - Reading Buffer

1000 - Waiting for End of read buffer

0x03

0..7 - DSO TrigVal(0..7) LSB

0x04

0,1 - DSO TrigVal(8,9)

2 - TrigSlp 1= True/Rising, 0 = False/Falling

3, 4 - TrigoutSel

00 - Gnd

01 - DSO/LA Trigger Out

10 - PG bit 7 out

11 - White Noise Out

5,6,7 - TrigSel

000 - DSO Trig

001 - DSO Width Trig Less Than

010 - DSO Width Trig Greater or Equal

011 - Not used

100 - Serial SPI Trig

101 - Serial I2C Trig

110 - Not used

111 - Logic Trig

0x05

0..7 - Logic Trigger Val

0x06

0..7 - Logic don't Care, 1 marks the bit position of don't care bit

0x07

0..7 - TrigPos(0..7)

0x08

0..7 - TrigPos(8,15)

0x09

0,1 - Clk source select 00=50Mhz, 01=100Mhz, 10=200Mhz, 11= 20Mhz and below

2,7 - ClkDiv bit 8,13

0x0A

0..7 - ClkDiv bit 0..7 (Clk rate = 100 Mhz / (Clkdiv-2) - 1)

0x0B

0..7 - TrigwidthVal(0..7)

0x0C

0..7 - DAC MSB (bit 7,6 selects DAC 0, 1);

00 - DSO offset

10 - LA Threshold voltage

0x0D

0..7 - DAC LSB

0x0E

0 - FSMReset 1= resets DSO FSM (pulse on write to reg)

1 - Armed DSO 1= Arms DSO for capture (pulse on write to reg)

2 - ReadMode 1= Buffer Read Back, 0= DSO

3 - TrigEnd 1= Forces a fake trig (pulse on write to reg)

4 - PwrDn 1= power down default = 0

5 - DACout 1= Dac out (pulse on write to reg)

6 - ADCRst 1= Reset ADC default = 0 needs software pulse

7 - ACDC 1 = DC, 0 = AC

0x0F

Iniki_Register2.txt

0 - Alternate Address Page 1
1 - Alternate Address Page 2
2..7 not used

(Pat Gen registers)

Alt_1 0x00
Alt_1 0x01
Alt_1 0x02
 0,1 - PatClk source select 00=50Mhz, 01=100Mhz, 10=200Mhz, 11= 20Mhz and
below
 2,7 - PatClkDiv bit 8,13

Alt_1 0x03 0..7 - PatClkDiv bit 0..7 (Clk rate = 100 Mhz / (PatClkDiv-2))

Alt_1 0x04 0..7 - Pat Gen Start Address(0..7)

Alt_1 0x05 0,1 - Pat Gen Start Address(8,9)

Alt_1 0x06 0..7 - Pat Gen Stop Address(0..7)

Alt_1 0x07 0,1 - Pat Stop Address(8,9)

Alt_1 0x08

 0 - Pat Gen Repeat Mode 1= repeat, 0 = one shot

 1 - Pat Gen buffer Write Enable

 2..3 - Pat Gen start mode 00 = Off, 01 = Armed, 10 = TrigPulse, 11 =

Manual/Pat Gen Start

Alt_1 0x09

 0 - Pat Gen Start

Alt_1 0x0A 0..7 - PatGen Buffer Data In (auto increment of FIFO address)

Alt_1 0x0B

 0 - Pat Gen I/O bit for given buffer address. 1 = Out, 0 = In

Alt_1 0x0C 0..6 - PatGen Loop Cnt, need min of 1 for one shot

Alt_1 0x0D PG Byte I/O CTL, 1 = Out, 0= In

Alt_1 0x0E

Alt_1 0x0F

(Serial Trigger Registers)

Alt_2 0x00 Serial Trigwd (31 downto 24) first bits to enter the shift register

Alt_2 0x01 Serial Trigwd (23 downto 16)

Alt_2 0x02 Serial Trigwd (15 downto 8)

Alt_2 0x03 Serial Trigwd (7 downto 0) last bits to enter the shift register

Alt_2 0x04 Serial Trigwd Ignor(31 downto 24)

Alt_2 0x05 Serial Trigwd Ignor(23 downto 16)

Alt_2 0x06 Serial Trigwd Ignor(15 downto 8)

Alt_2 0x07 Serial Trigwd Ignor(7 downto 0)

Alt_2 0x08 0,1 - SPI Mode

 00 - Mode 0 CJK Source Select 00=20Mhz, 01=100Mhz, 10=50Mhz, 11=

 01 - Mode 1

 10 - Mode 2

 11 - Mode 3

2..7 - Not used

0 - FSWRGESET J= releases DSO FSW (bitwise or write to led)

1 - ALARMED DSO J= Alarms DSO for capture (bitwise or write to led)

2 - READMODES J= Buffer Read SCK, 0= DSO

3 - TRIGEN J= Forces a take trig (bitwise or write to led)

4 - PWMJU J= Power down defstall = 0

5 - DACONC J= Dec onc (bitwise or write to led)

6 - ADCRS2 J= Reserve ADC defstall = 0 needs software busy

7 - ADCC J = DC, 0 = AC

1. apt-get update
2. apt-get install git-core build-essential nginx hostapd iw minicom usbmount udhcpd libfcgi-dev
3. cd / home/pi
4. git clone git://git.drogon.net/wiringPi
5. cd wiringPi
6. ./build
7. cd ..
8. git clone git://github.com/tkrmnz/WebMSO-config.git
9. cd WebMSO-config
10. cp /home/pi/WebMSO-config/74-linkms0.rules /etc/udev/rules.d/
11. nano /etc/nginx/sites-available/default
root /var/www;

```
location /fcgi-bin/ms028ctl.fcgi{  
    include fastcgi_params;  
    fastcgi_pass 127.0.0.1:9000;  
}
```

12. cp proxy.conf /etc/nginx/.

```
proxy_redirect off;  
proxy_set_header Host $host;  
proxy_set_header X-Real-IP $remote_addr;  
proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;  
client_max_body_size 10m;  
client_body_buffer_size 128k;  
proxy_connect_timeout 90;  
proxy_send_timeout 90;  
proxy_read_timeout 90;
```

13. nano /etc/nginx/nginx.conf
un-comment gzip
14. mkdir /var/www
15. copy webms028 content to /var/www at this point nginx should start serving the web page.(./etc/init.d/nginx start)
16. chmod +x /var/www/fcgi-bin/ms028ctl.fcgi
17. mkdir /mnt/tmp
mount -t tmpfs -o size=20m tmpfs /mnt/tmp
ln -s /mnt/tmp /var/www/fcgi-bin/tmp
18. copy mso28cgi to /home/pi

19. copy spawn-fcgi-1.6.3.tar.bz2 to /home/pi
20. unzip tar -xvf spawn-fcgi-1.6.3.tar.bz2
21. cd spawn-fcgi-1.6.3
 - ./configure
 - make
 - make install
 - cp src/spawn-fcgi /usr/bin/spawn-fcgi
22. copy spawn-fcgi1 to /etc/init.d
23. chmod +x /etc/init.d/spawn-fcgi1
- 23 test using /etc/init.d/spawn-fcgi1 start
- 24 kill with fuser -k 9000/tcp
- 25 auto start via
 - update-rc.d spawn-fcgi1 defaults
 - remove from auto start with
 - update-rc.d -f spawn-fcgi1 remove

At this point server works with ethernet cable.

for Wifi.

for LCD display IP & AP
start X.

hostapd.conf

interface

/etc/default/hostapd

DNSmasq.conf

AP = WEB SSID.

/etc/192.125.0.1

Ethernet . IP =

ms028. linkms0

LCD

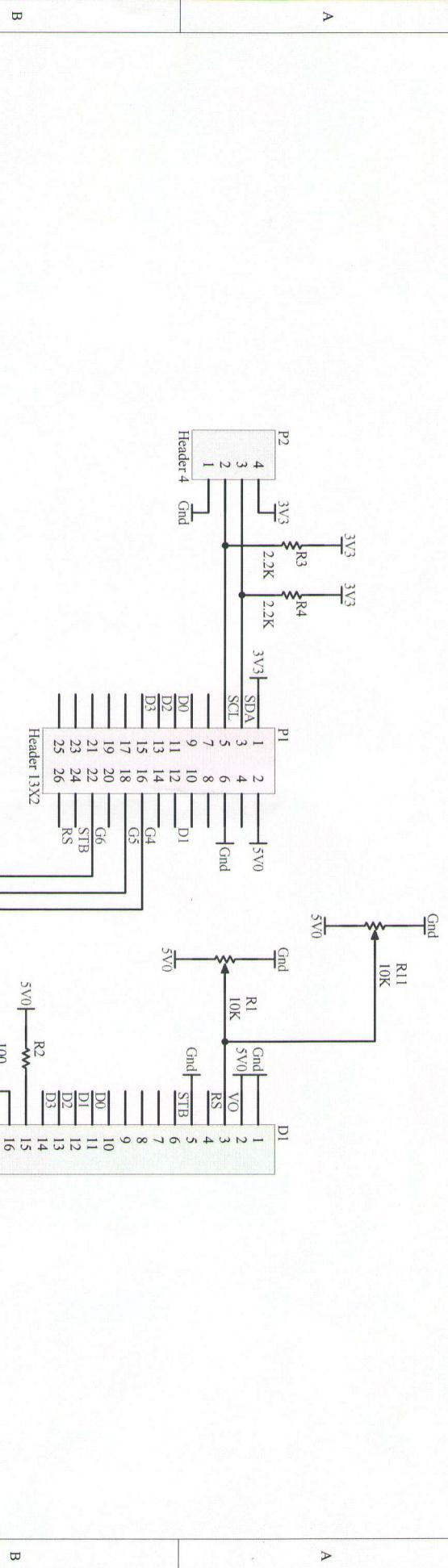
AP = Web MS0 •
URL = ms028.lnkms0.

1

2

3

4



1

2

3

4