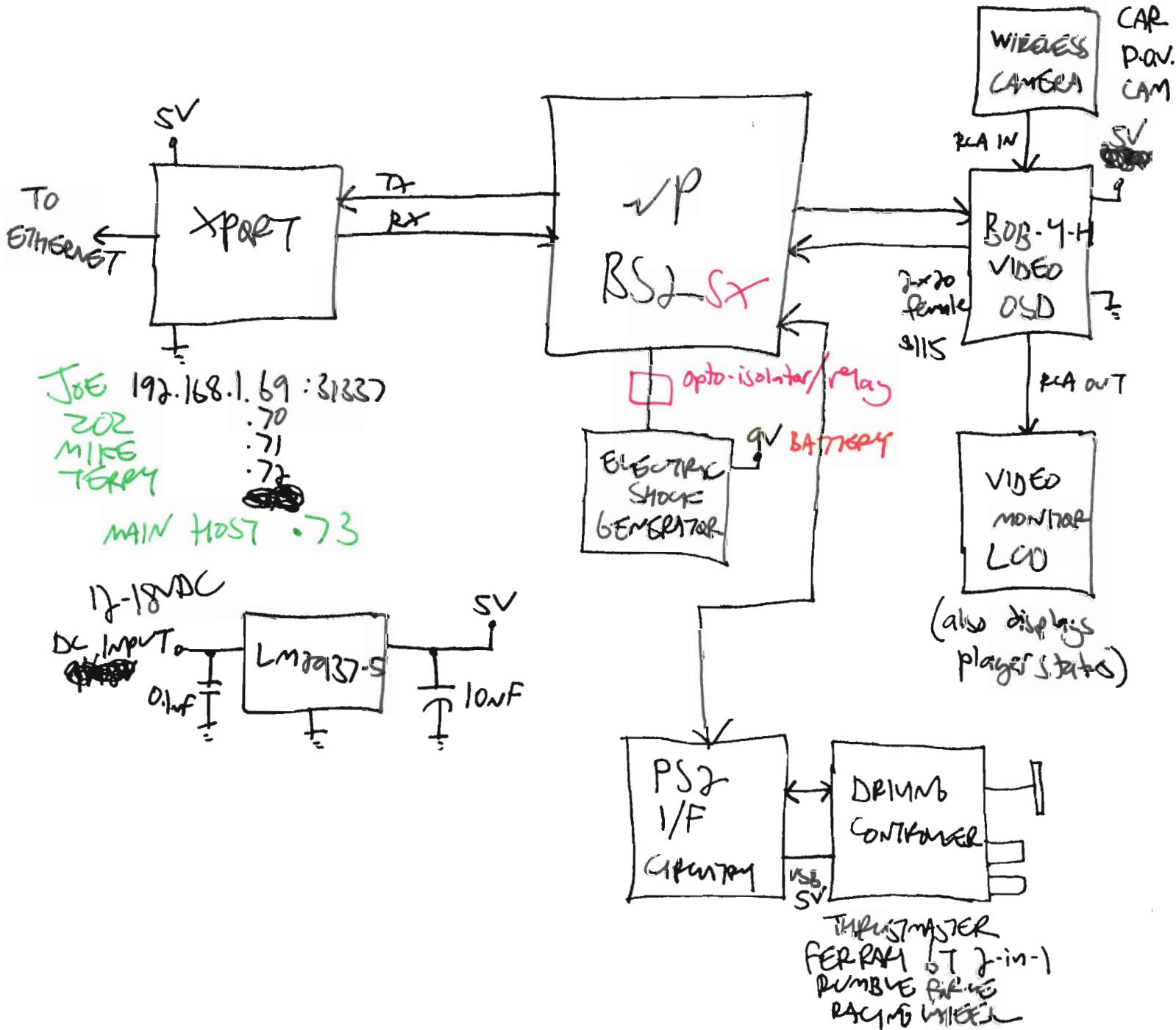


# AMBER MANAGEMENT COCKPIT CONTROL CIRCUTRY (C3)

11/12/07

ONE BOARD FOR EACH OF 5 COCKPITS

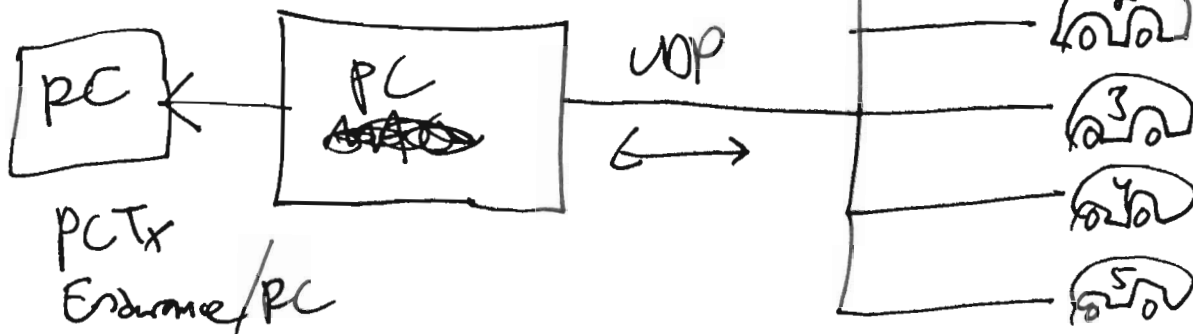


- STEERING
- BRAKE
- ACCELERATION
- SHIFTING (FORWARD/REVERSE)

# AMBER MANAGEMENT / PC DEMO. DISPT - IDEAS

11/10/07  
COCKPITS

to remote  
controlled  
cars



## COCKPIT

- ✓ ~~STEERING WHEEL~~ STEERING WHEEL / DRIVING CONTROLLER
- ✓ - XPART PS2?
- < BOB.Y VIDEO OSD
- WIRELESS CAMERA / RECEIVER
- \* VIDEO MONITOR

- LIFE STIM? / EMOTIV / EEG?
- GALVANIC SKIN RESPONSE ON STEERING WHEEL
- PC CAR INTERFACE FOR TESTING?
- ELECTRIC SHOCK AT RANDOM INTERVALS TO GIVE PLAYERS STRESS

# BIOFEEDBACK CONTROL SYSTEM

2/15/08

AMBER MANAGEMENT/DEMOLITION DERBY

PRELIMINARY

EMOTIV: controls gear shift: forward or reverse

→ THINK "PUSH", CAR MOVES FORWARD

→ THINK "PULL", CAR MOVES REVERSE

~~STOP~~ IF NO MATCH TO ABOVE, CAR IN NEUTRAL

LIFESTYLE: controls maximum acceleration  
via heart rate, ESR, or T.P.D.

→ Stressed/excited → low speed (like pushing gas pedal  
only a little bit)

→ calm → high speed

Some linear relationship b/w physiological state & acceleration



Firmware Version: V6.1.0.0

MAC Address: 00-20-4A-A3-08-FB

### Network Settings

Network

Server

Serial Tunnel

Hostlist

Channel 1

Serial Settings

Connection

Email

Trigger 1

Trigger 2

Trigger 3

Configurable Pins

Apply Settings

Apply Factory Defaults

#### IP Configuration

Obtain IP address automatically

Auto Configuration Methods

BOOTP: Enable Disable

DHCP: Enable Disable

AutoIP: Enable Disable

DHCP Host Name:

Use the following IP configuration:

IP Address: 169.254.1.71

Subnet Mask: 255.255.255.0

Default Gateway: 169.254.1.1

#### Ethernet Configuration

Auto Negotiate

Speed: 100 Mbps 10 Mbps

Duplex: Full Half

OK



Firmware Version: V6.1.0.0

MAC Address: 00-20-4A-A3-08-FB

### Serial Settings

- Network
- Server
- Serial Tunnel
- Hostlist
- Channel 1
- Connection
- Email
- Trigger 1
- Trigger 2
- Trigger 3
- Configurable Pins
- Apply Settings
- Apply Factory Defaults

#### Channel 1

Disable Serial Port

#### Port Settings

Protocol: RS232

Flow Control: None

Baud Rate: 19200

Data Bits: 8

Parity: None

Stop Bits: 1

#### Pack Control

Enable Packing

Idle Gap Time: 12 msec

Match 2 Byte Sequence: Yes No

Send Frame Only: Yes No

Match Bytes: 0x 00 0x 00 (Hex)

Send Trailing Bytes: None One Two

#### Flush Mode

##### Flush Input Buffer

With Active Connect: Yes No

With Passive Connect: Yes No

At Time of Disconnect: Yes No

##### Flush Output Buffer

With Active Connect: Yes No

With Passive Connect: Yes No

At Time of Disconnect: Yes No

OK



Firmware Version: V6.1.0.0

MAC Address: 00-20-4A-A3-08-FB

### Connection Settings

Network

Server

Serial Tunnel

Hostlist

Channel 1

Serial Settings

Email

Trigger 1

Trigger 2

Trigger 3

Configurable Pins

Apply Settings

Apply Factory Defaults

#### Channel 1

##### Connect Protocol

Protocol: UDP

##### Datagram Mode:

Datagram Type: 01

Accept Incoming: Yes

##### Endpoint Configuration:

Local Port: 31339

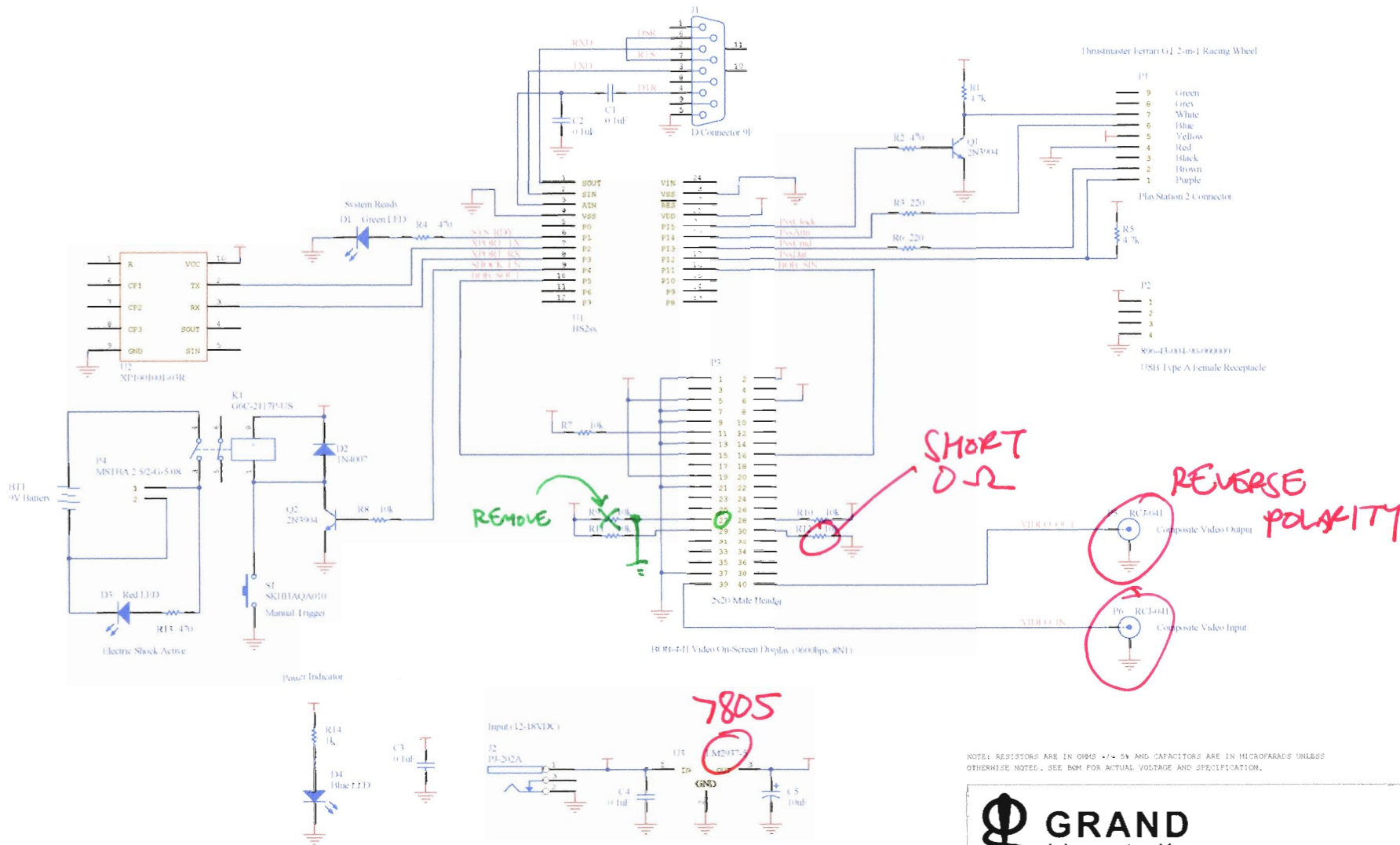
Remote Port: 31339

Remote Host: 169.254.1.202


##### Device Address Table:

No.	Dev Addr	No.	Dev Addr	No.	Dev Addr	No.	Dev Addr
0	0	1	0	2	0	3	0
4	0	5	0	6	0	7	0
8	0	9	0	10	0	11	0
12	0	13	0	14	0	15	0

OK



NOTE: RESISTORS ARE IN OHMS +/- 5% AND CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE NOTED. SEE BOM FOR ACTUAL VOLTAGE AND SPECIFICATION.



**GRAND**  
idea studio

TITLE: Demolition Derby: Cockpit Control Circuitry

DATE	FILENAME	SIZE	DRAWN BY	REV	
2/28/2008		B	SKT 1 OF 1	Joe Grand	A

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Zoe

CH. 1 THROTTLE

90 off  
150 max

CH. 2 STEERING

128 center  
103 max left  
163 max right

CH. 3 SHIF

146 neutral  
157 reverse  
141 drive

CH. 4 BRAKE

200 off  
115 max

JOE

CH. 1 THROTTLE 124 off  
200 ~~150~~ max

CH. 2 STEERING 128 center  
→ 103 max left  
163 max right

CH. 3 SHIF 146 neutral  
157 reverse  
135 drive

120 off  
115 max



TERRY

CH. 1 ~~THROTTLE~~ 100 off (gate)  
175 ~~120~~ max

133 center  
111 left max  
167 right max

CH. 2 ~~CLUTCH~~  
141 neutral  
136 drive  
148 reverse

CH. 4 BRAKE  
216 off  
157 max

NORTH

CH. 1 THROTTLE 85 off (gate)  
120 ~~100~~ max

CH. 2 STEERING 143 center  
170 max left  
116 max right

CH. 3 SHIFT 149 neutral  
157 reverse  
140 drive

CH. 4 BRAKE 190 off  
89 max