

# Win the Cyber War! with Precognitive Heuristics<sup>TM</sup> technology

Roberto Hammer, CISSP

Cyber Expert

Sun Tzu CyberConsulting Inc.

I'm simply awesome

- CISSP, Cyber APT *and* AVT expert
- I33t awesome pwner
- Computerzombienetzwerkverstehər
- World Champion in *Gwall Cyfieithu*

## Our mission

- *ALL* our customers *perfectly* secure
- big data, cloud web 2.0, cyberconsulting
- expert blackhat anonymous hack-back cyber mercenaries
- **win** the Cyber War in the **snap** of a finger

We don't engage in illegal activity<sup>TM</sup>

[CONFIDENTIAL]

[TOP SECRET]

Thank you!

# Questions?

simply-awesome@suntzu.com



**INSERT COIN.**

**PUSH 1P START.**

**PUSH 1P OR 2P START .**



11000784

三

三

104

**ROMSTAR®**  
All Rights Reserved  
Serial No.

No. 24775

```
static MACHINE_CONFIG_START( tokio, bublbobl_state )

    /* basic machine hardware */
    MCFG_CPU_ADD("maincpu", Z80, MAIN_XTAL/4)      // 6 MHz
    MCFG_CPU_PROGRAM_MAP(tokio_map)
    MCFG_CPU_VBLANK_INT_DRIVER("screen", bublbobl_state, irq0_line_hold)

    MCFG_CPU_ADD("slave", Z80, MAIN_XTAL/4) // 6 MHz
    MCFG_CPU_PROGRAM_MAP(tokio_slave_map)
    MCFG_CPU_VBLANK_INT_DRIVER("screen", bublbobl_state, irq0_line_hold)

    MCFG_CPU_ADD("audiocpu", Z80, MAIN_XTAL/8) // 3 MHz
    MCFG_CPU_PROGRAM_MAP(tokio_sound_map)

    MCFG_QUANTUM_TIME(attotime::from_hz(6000))

    MCFG_MACHINE_START_OVERRIDE(bublbobl_state,tokio)
    MCFG_MACHINE_RESET_OVERRIDE(bublbobl_state,tokio)

    /* video hardware */
    MCFG_SCREEN_ADD("screen", RASTER)
    MCFG_SCREEN_RAW_PARAMS(MAIN_XTAL/4, 384, 0, 256, 264, 16, 240)
    MCFG_SCREEN_UPDATE_DRIVER(bublbobl_state, screen_update_bublbobl)

    MCFG_GFXDECODE(bublbobl)
    MCFG_PALETTE_LENGTH(256)

    /* sound hardware */
    MCFG_SPEAKER_STANDARD_MONO("mono")

    MCFG_SOUND_ADD("ymsnd", YM2203, MAIN_XTAL/8)
    MCFG_SOUND_CONFIG(ym2203_config)
    MCFG_SOUND_ROUTE(0, "mono", 0.08)
    MCFG_SOUND_ROUTE(1, "mono", 0.08)
    MCFG_SOUND_ROUTE(2, "mono", 0.08)
    MCFG_SOUND_ROUTE(3, "mono", 1.0)

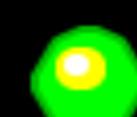
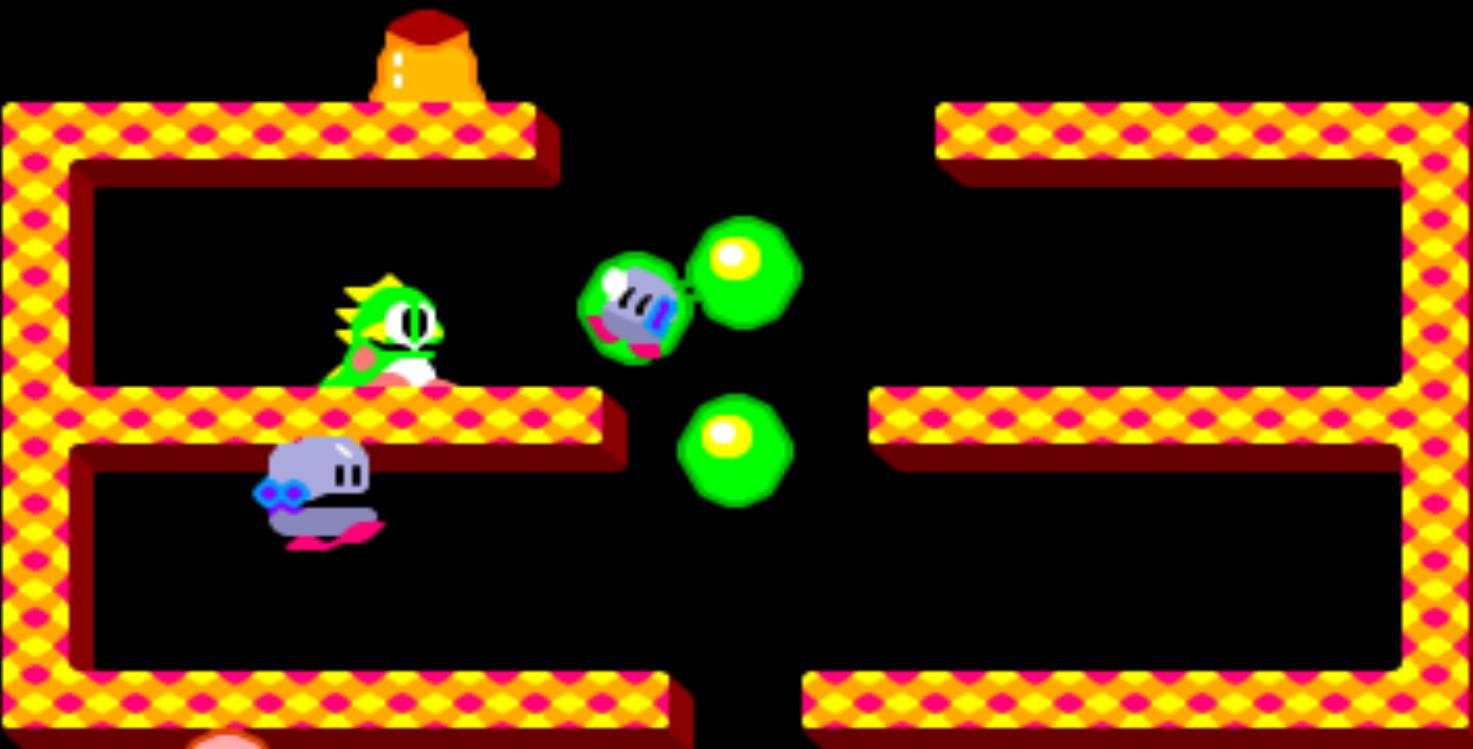
MACHINE_CONFIG_END
```

**1UP**  
**34760**

**HIGH SCORE**  
**34760**

**INSERT  
COIN**

**3**



**HACKING**

**EMULATION**

**GAMES**



## OBJECT

**STAGE=01**  
**COLOR=01**

**VFLIP=OFF**

**HFL IP=OFF**

卷九

SCROLL 1

VFLIP-OFF

**HELP-OFF**

|      |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |   |
|------|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0000 | 0 | 1 | 2 | 3  | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| 0010 | █ | █ | █ | █  | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ |
| 0020 | ! | " | @ | \$ | % | & | * | ( | ) | * | + | , | - | . | / |   |
| 0030 | 0 | 1 | 2 | 3  | 4 | 5 | 6 | 7 | 8 | 9 | : | : | < | = | > | ? |
| 0040 | @ | A | B | C  | D | E | F | G | H | I | J | K | L | M | N | O |
| 0050 | P | Q | R | S  | T | U | V | И | Х | Y | Z | Ը | Ր | Ծ | Ը | Ծ |
| 0060 | · | ա | ե | ւ  | գ | դ | ե | թ | ի | յ | կ | լ | ո | ո | ո | ո |
| 0070 | Ր | Ա | Ր | Տ  | Ս | Վ | Կ | Խ | Զ | Հ | Ե | Ւ | Ւ | Ւ | Ւ | Ւ |

0 1 2 3 4 5 6 7 8 9 A B C D E F

SCROLL 2

**STAGE=01**  
**COLOR=00**

VFL IP=OFF

**HFL IP=OFF**

**STAGE=01**  
**COLOR=02**

SCROLL 3

VFLIP=OFF

HFL IP=OFF

A screenshot from Super Mario Bros. showing Mario jumping over a Goomba enemy. The Goomba is a brown enemy with a single eye and a spiky shell. Mario is in mid-air, having just跳过了 the Goomba. The background shows a wooden floor and a brick wall.

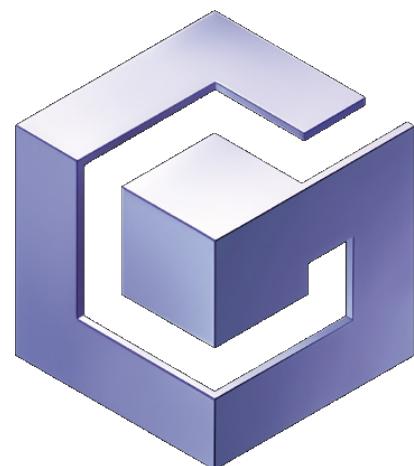
A screenshot from Super Mario Bros. showing a level with pipes and a pipe-throwing enemy. The screen displays memory addresses 00000 through 00118. The level features a brick floor, a pipe-throwing enemy (Bob-omb) on the right, and several pipes extending from the floor.



NAOMI™



*Chihiro*™



TRIFORCE™  
NAMCO • SEGA • NINTENDO

TIME 077

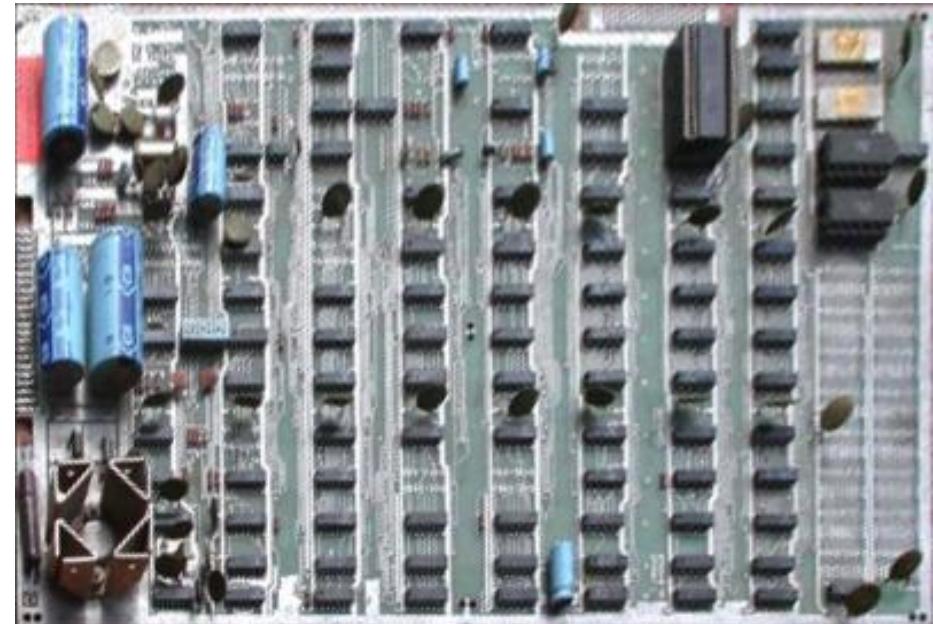
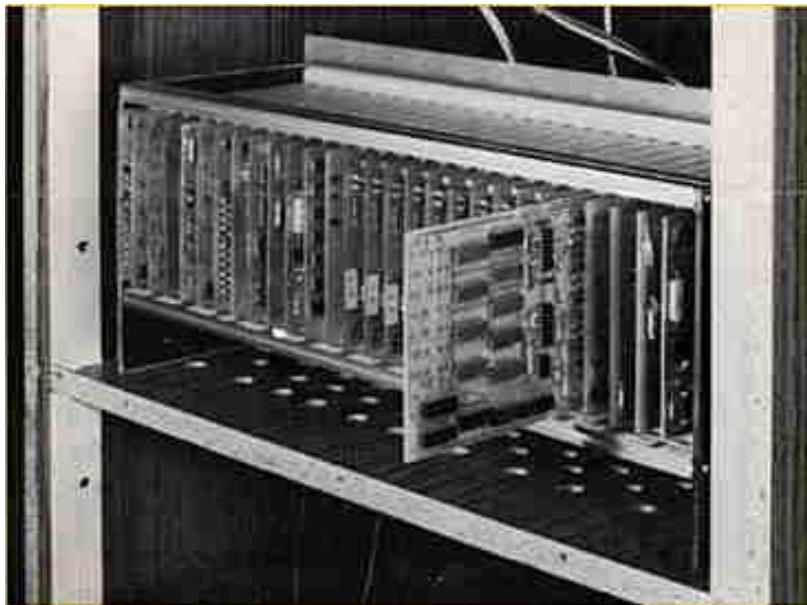
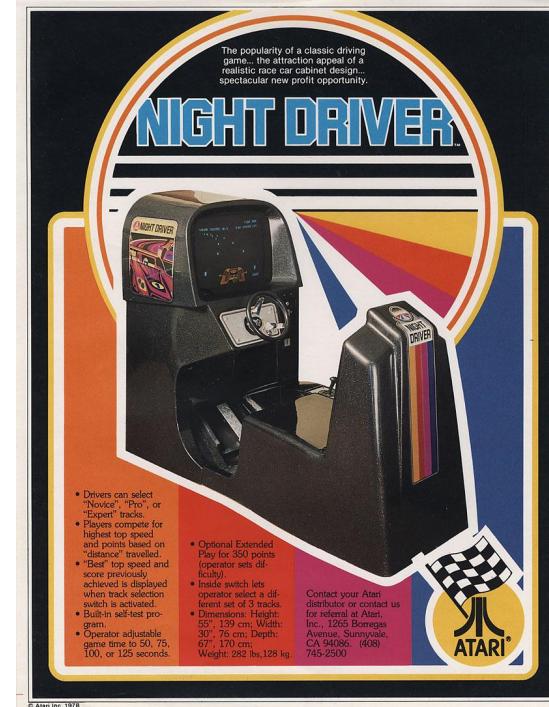
TOP SPEED 083

YOUR SCORE 016



GEAR 3

NOVICE



# 1975 Nürburgring

# 1976 Night Driver

If you think we went crazy developing Berzerk, you're right! This is the first time we've ever put all of our technology and wit to work in one video game. The result is a video masterpiece that not only drives players absolutely Berzerk, it drives profits directly to operators.

#### THE BERZERK LINEUP OF INNOVATIVE FEATURES:

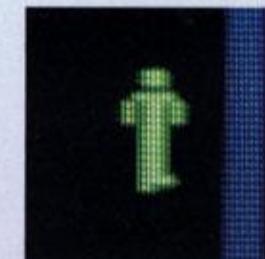
- Unsurpassed 30-word vocabulary allows game to communicate to player.
- 64,000 random maze patterns appear on video screen for explosive—and non-repetitive—action.
- Newly designed "Joy Stick" enables player to move image of humanoid in 8 different directions.
- 10 highest scores-to-date register on screen after play is over.
- Memory also stores 5 highest scores-to-date, even when machine is unplugged.
- Attract mode beckons players by voicing—"Coins detected in pockets"—at timed intervals.
- All logic boards housed in accessible pullout drawer in cabinet front, providing easy service for technicians.
- Sophisticated self-diagnostic programming routine.



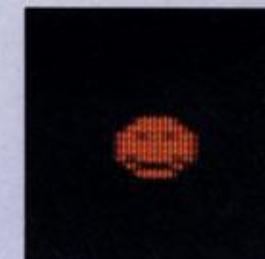
#### PLAY FEATURES



Robots pursue humanoid (player) through one of 64,000 possible maze patterns.



Humanoid avoids robots by manipulating "Joy Stick," and destroys robots by firing weapon.



"Evil Otto," an indestructible force, appears randomly on screen to pursue and destroy humanoid. He must be avoided at all costs!

"You'll really flip over this game, too!"

ENEMY IN RANGE

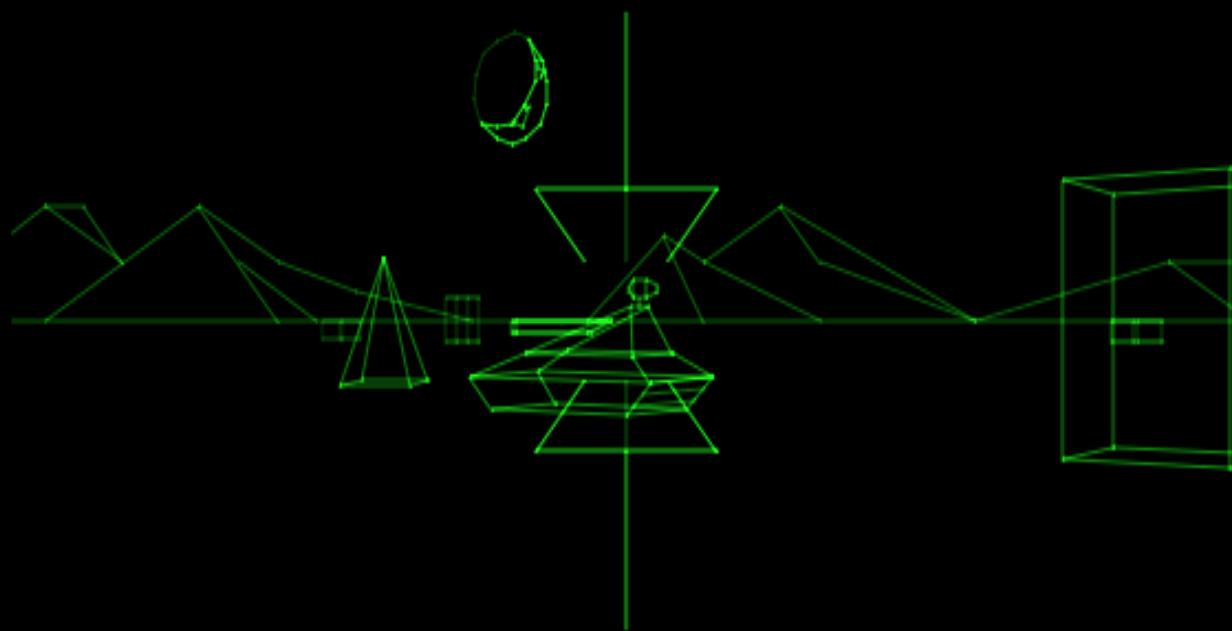


SCORE

0000

HIGH SCORE

5000





0 100



TIMER 3800  
BEST 3000

LEVEL 1





# DRAGON'S LAIR



**TIME**

**33**

**SCORE**

**361940**

**LAP**

**0' 40"95**

**191 km/h**

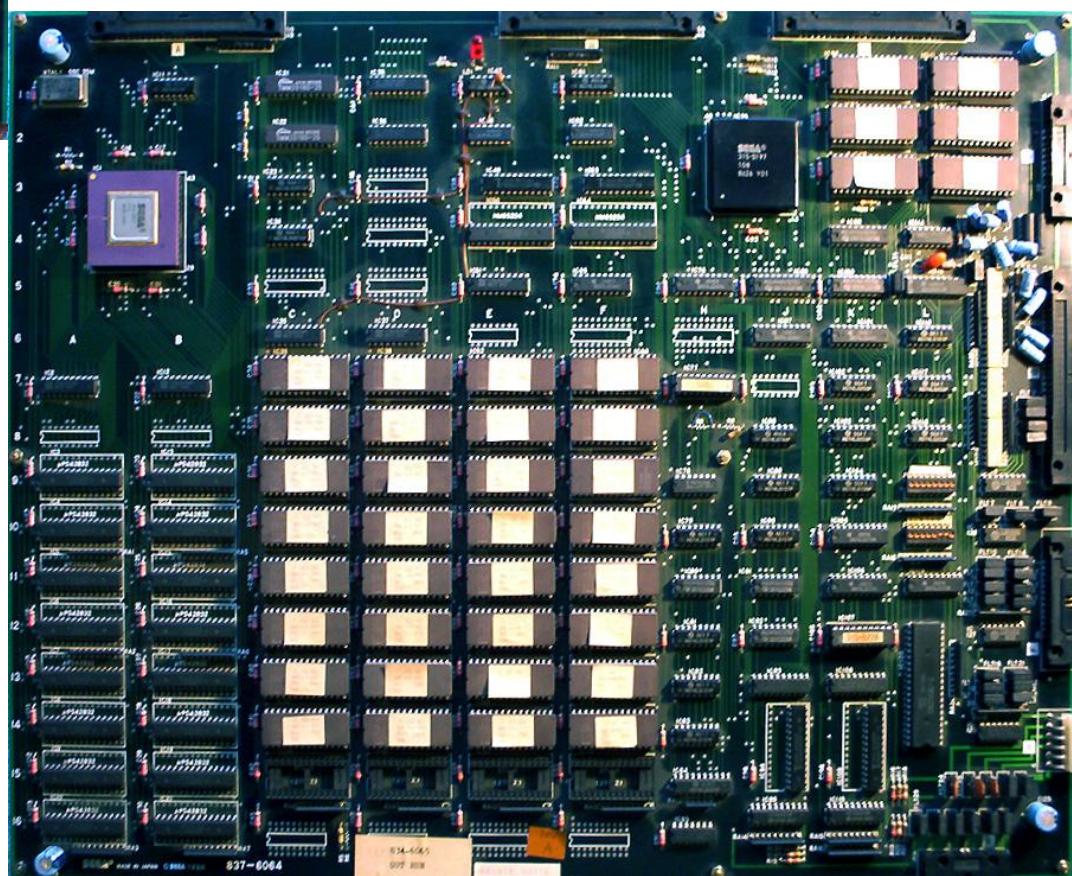


**STAGE 1**





*OutRun*





1 : 33

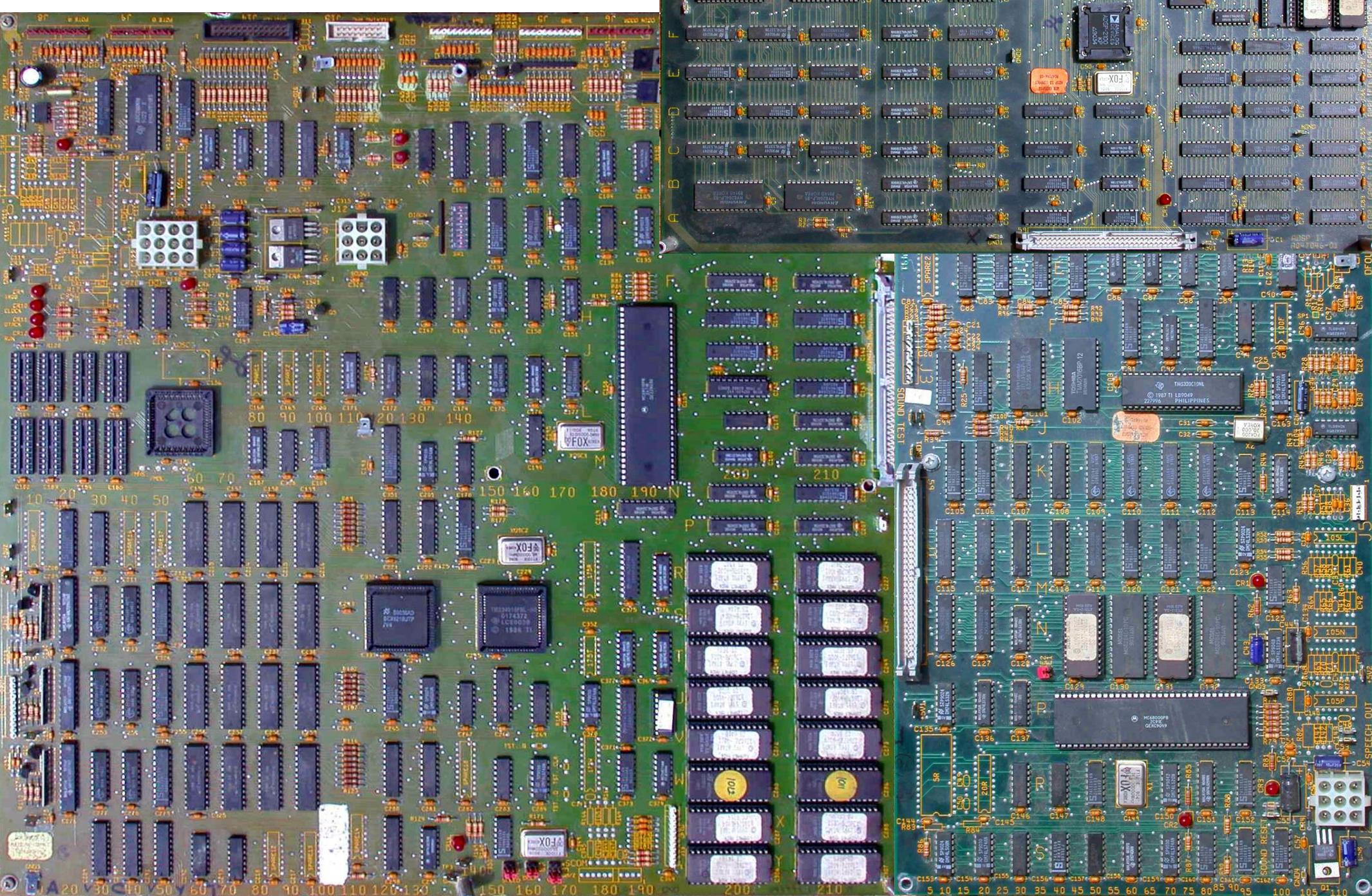
|                              |         |
|------------------------------|---------|
| SCORE                        | 0       |
| LAP TIME                     | 0:00:00 |
| BEAT 1:38:00<br>TO CHALLENGE |         |



|      |
|------|
| FUEL |
| OIL  |
| AMP  |
| TEMP |
| BELT |
| HZRD |



# HardDrivin'

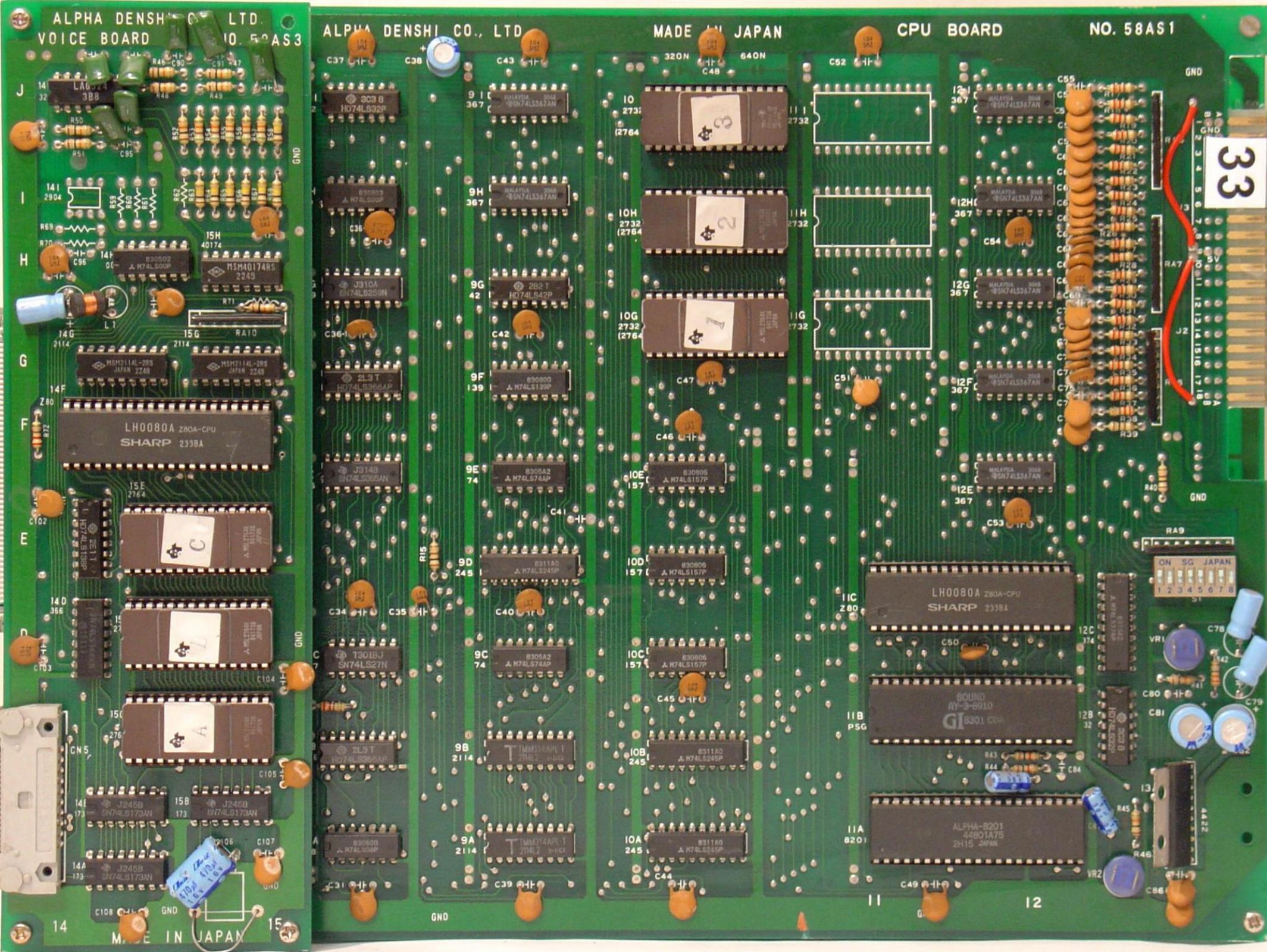


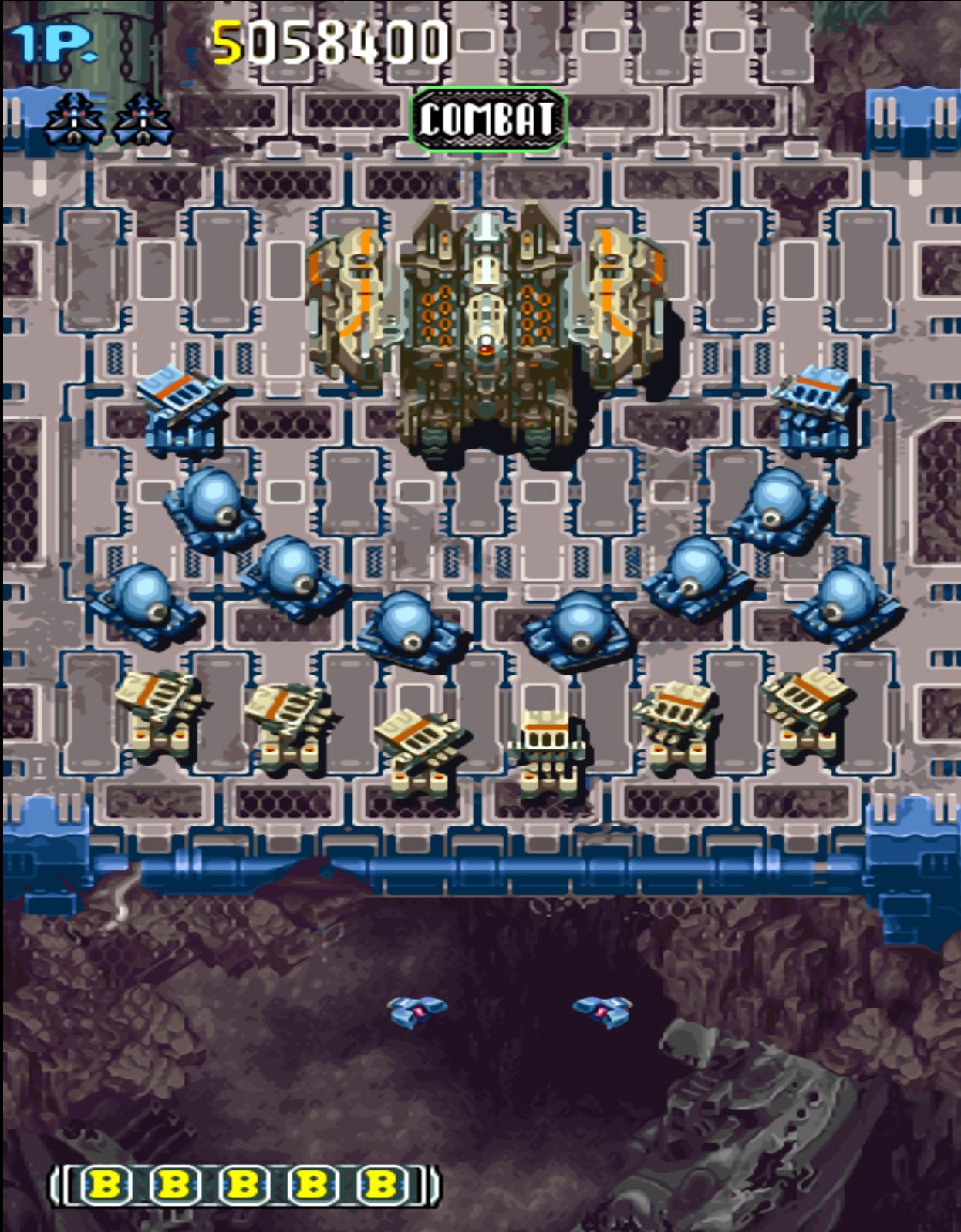




# R360







**TOP**

**1000000**

**STAGE 1**

**TIME**

**36**

**SCOR**

**SPE**

**TOP 1000000 TIME SCORE 988990**

**STAGE 1**

**50**

**SPEED 278KM**



1UP

0 HI 1000

P 0

TIME 2'54"



GAME OVER

STAGE 5

POWER

00000

CREDIT

00

00000

POWER

# The Dead Battery Society

The Dead Battery Society isn't really a society at all. It's just a web page.

Membership dues are not required. ;-)

Updated 4/15/13

You may have heard the term "suicide battery" used before and wondered what the heck it meant. Several arcade game manufacturers decided it would be a good idea to put a battery on their game boards that, when they die (and they will die), disable the game. Why they did this isn't exactly clear. Is it a way to artificially limit the lifespan of their games? Is it an anti-piracy measure? Do they want to assure that they will continue making money from the games by forcing you to send your boards to them for repair after a certain amount of time? Whatever their reasons, it sucks in a big way.

Usually the way suicide batteries work is, the batteries supply power to a bit of RAM that holds a decryption table. This table is the key to decrypting the encrypted program stored in the board's ROMs. When the battery dies, this table goes away and the program code can no longer be decrypted. The CPU no longer has valid code to execute. The board stops working.

There are several manufacturers that used these suicide batteries. Capcom and Sega are the two major ones. Capcom started using them right around 1989 with their pre-CPS games and have



CAPCOM

ARIA  
MAMA PROTECT  
0425913

CAPCOM  
CP SYSTEM (CP-01H)  
SER. No. 006000413  
LOT No.

CAPCOM CO., LTD.



# STREET FIGHTER II

The World Warrior

PUSH 1P OR 2P START.

©CAPCOM CO.,LTD.

# STREET FIGHTER II

CHAMPION EDITION

PUSH 1P OR 2P START.

©CAPCOM CO.,LTD. 1991,92

CREDIT= 2

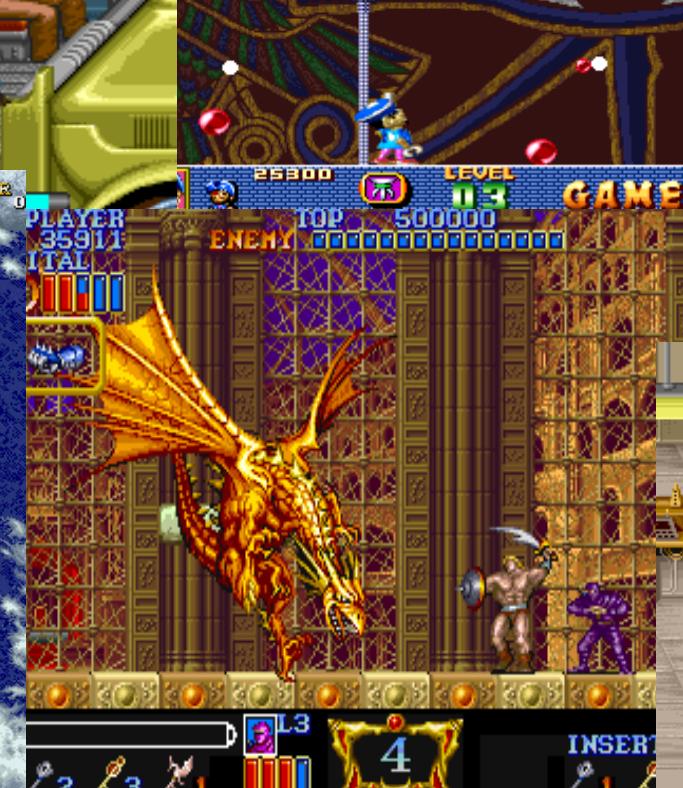
# STREET FIGHTER II

HYPER FIGHTING

PUSH 1P OR 2P START.

©CAPCOM CO.,LTD. 1991,92





1P

1000 Yu

99999

KO

RYU

95

DHALSIM



# SELECT PLAYER



GUY

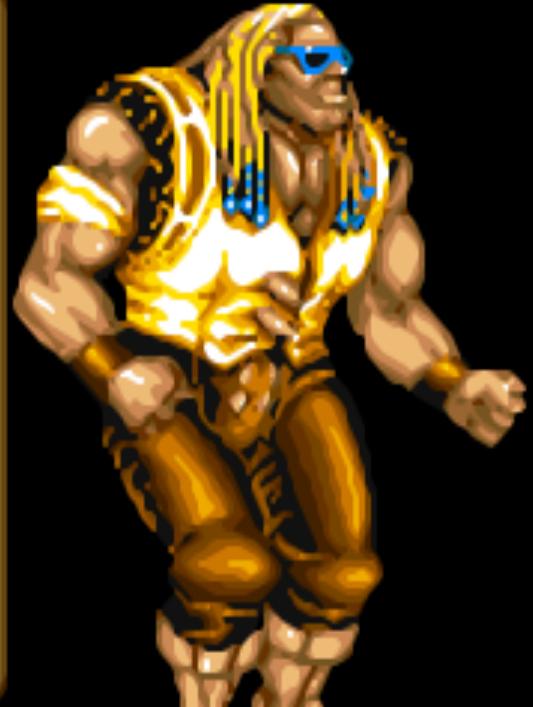
CODY

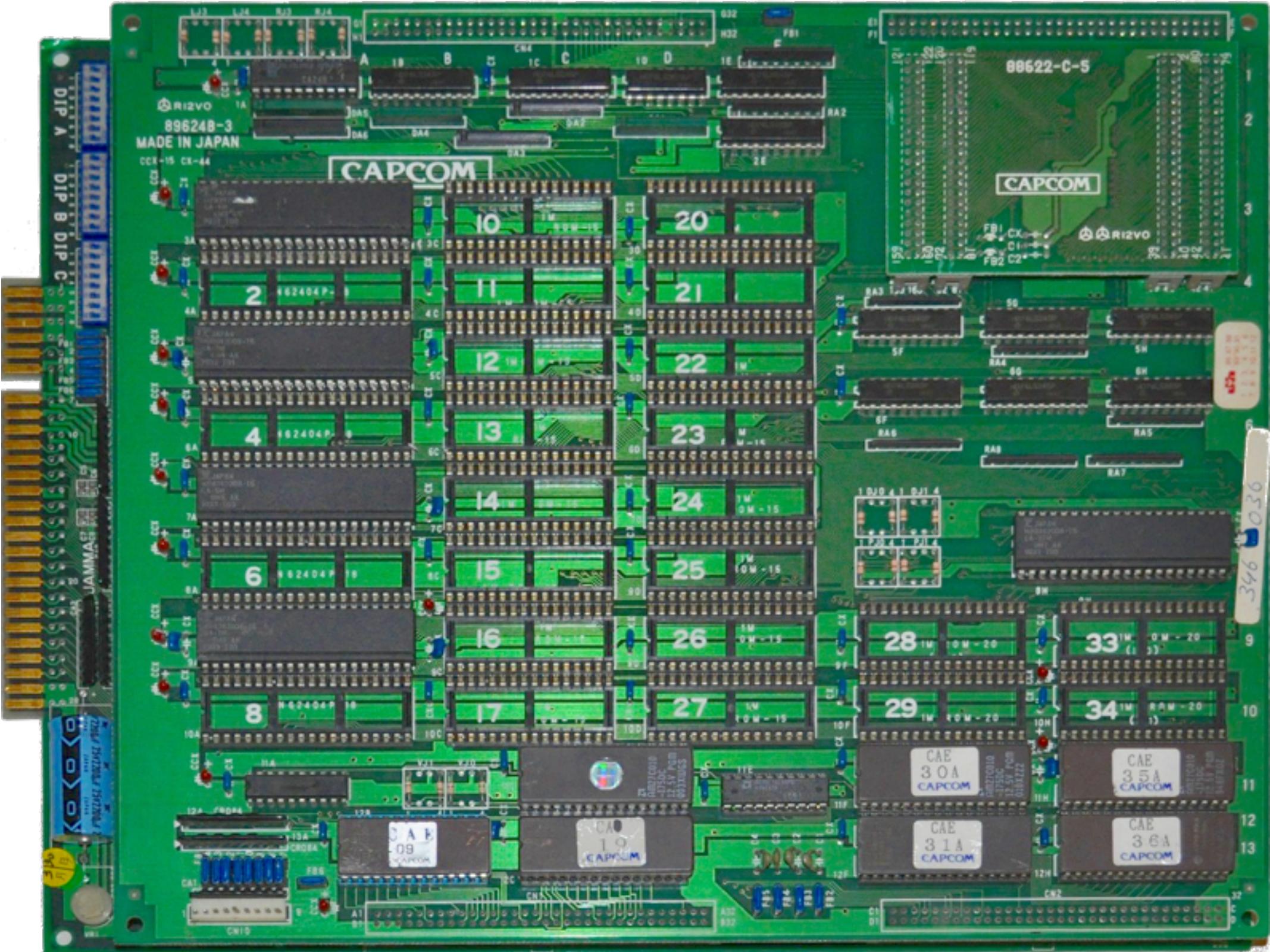
HAGGAR

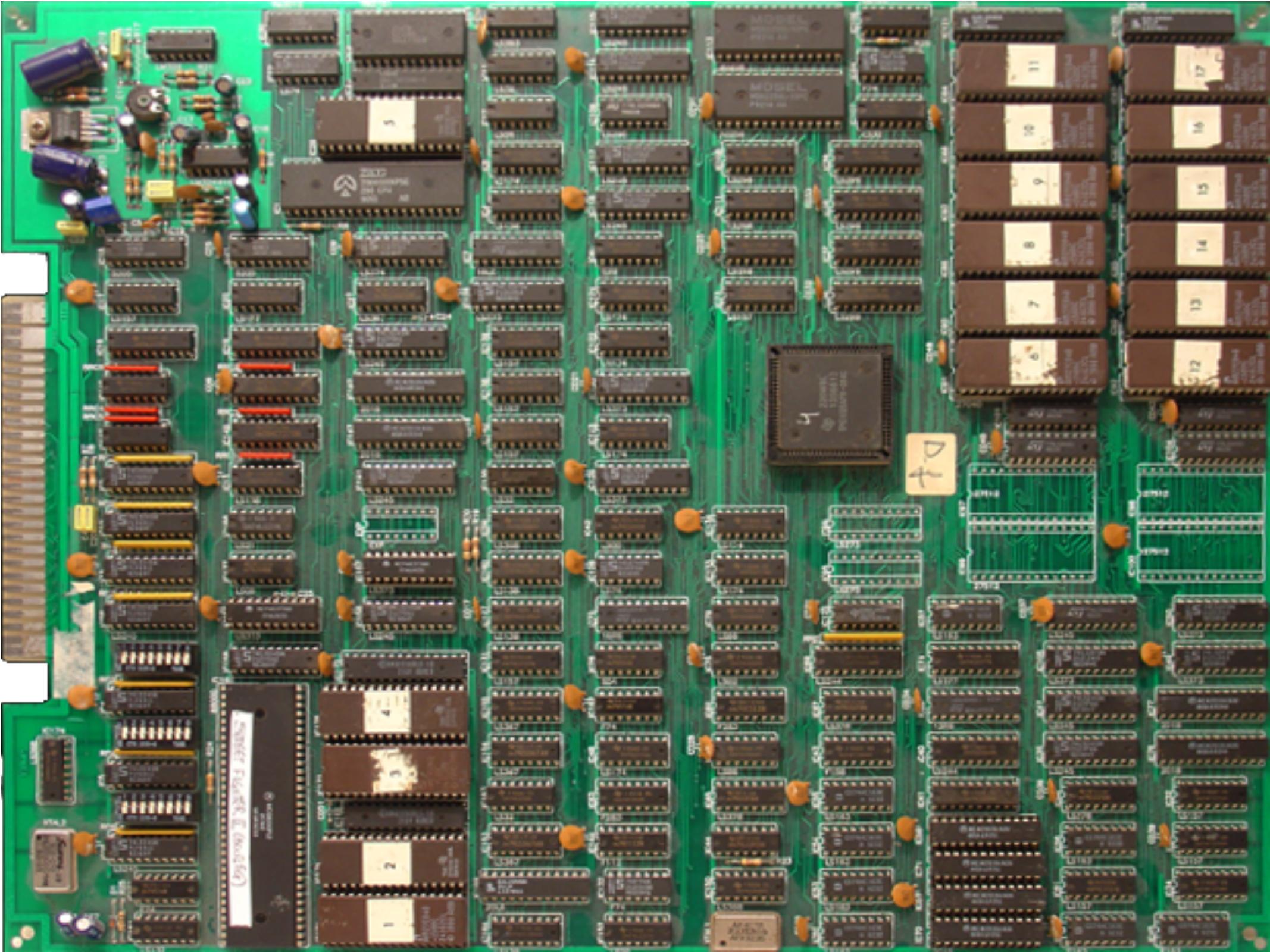


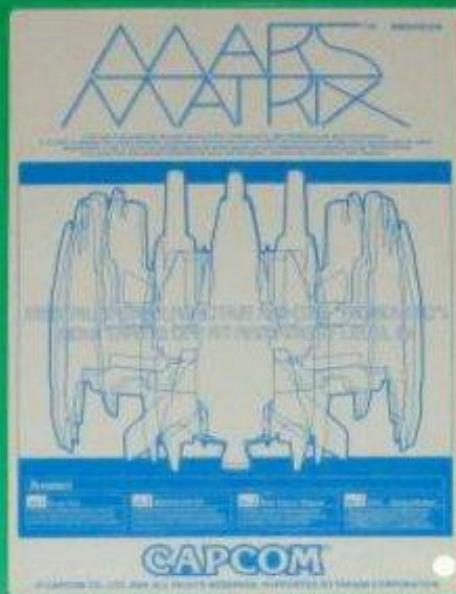
Height ... 5.87ft Height ... 5.97ft Height ... 6.64ft  
Weight ... 158lb Weight ... 187lb Weight ... 297lb

SELECT PLAYER









CAPCOM®  
CP システム II  
SER. № 020236724  
MADE IN JAPAN  
株式会社 カプコン





SUPER  
STREET FIGHTER II  
931005  
JAPAN

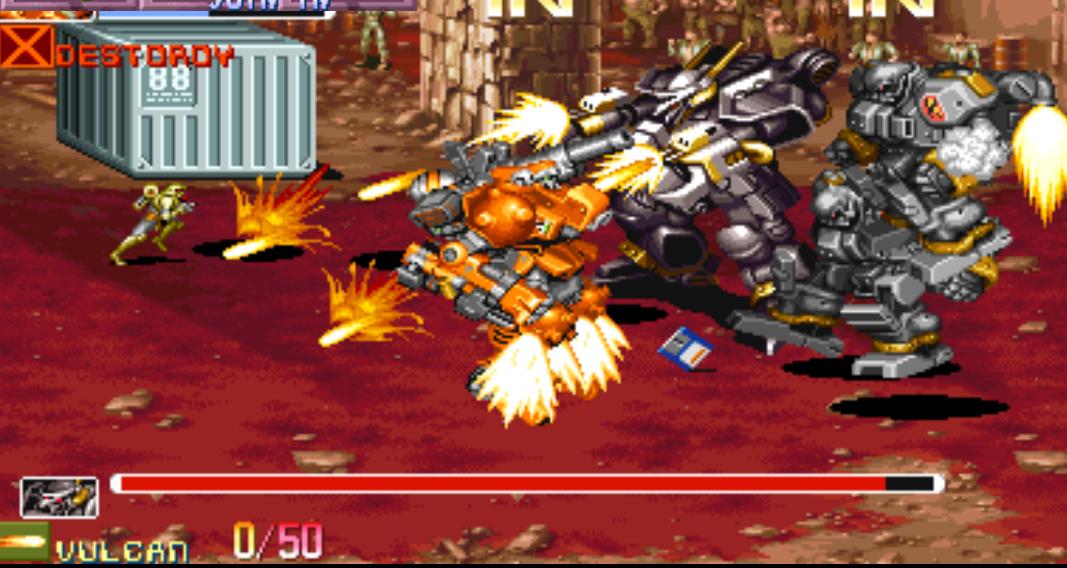
The New Challengers

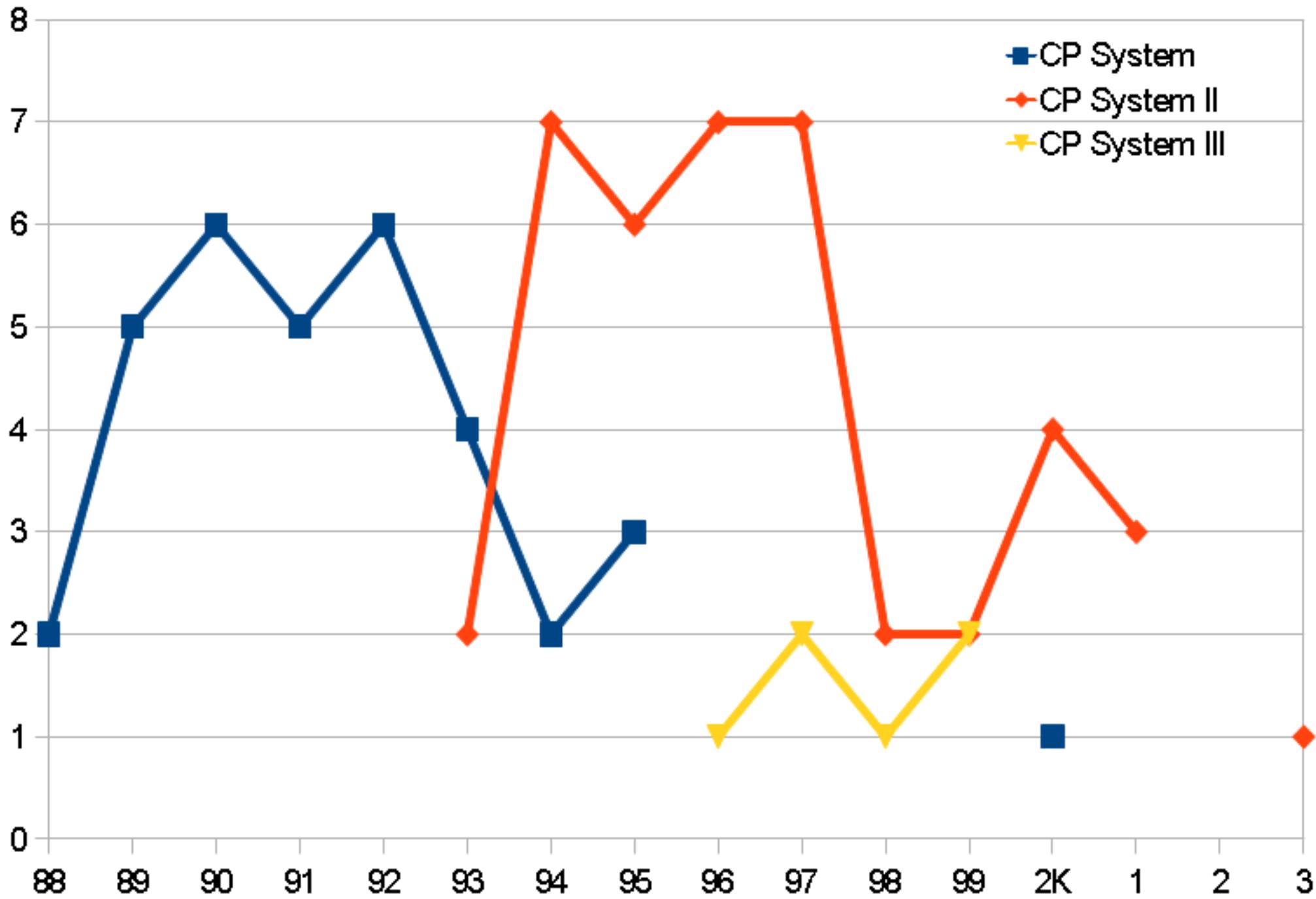


HYPER  
STREET FIGHTER II  
040202  
U.S.A.

The Anniversary Edition









1P

1 Poo

50000

2P

1

E.Honda

K.O

98

T.Hawk



1UP

O LEO

50000

INSTER

KO

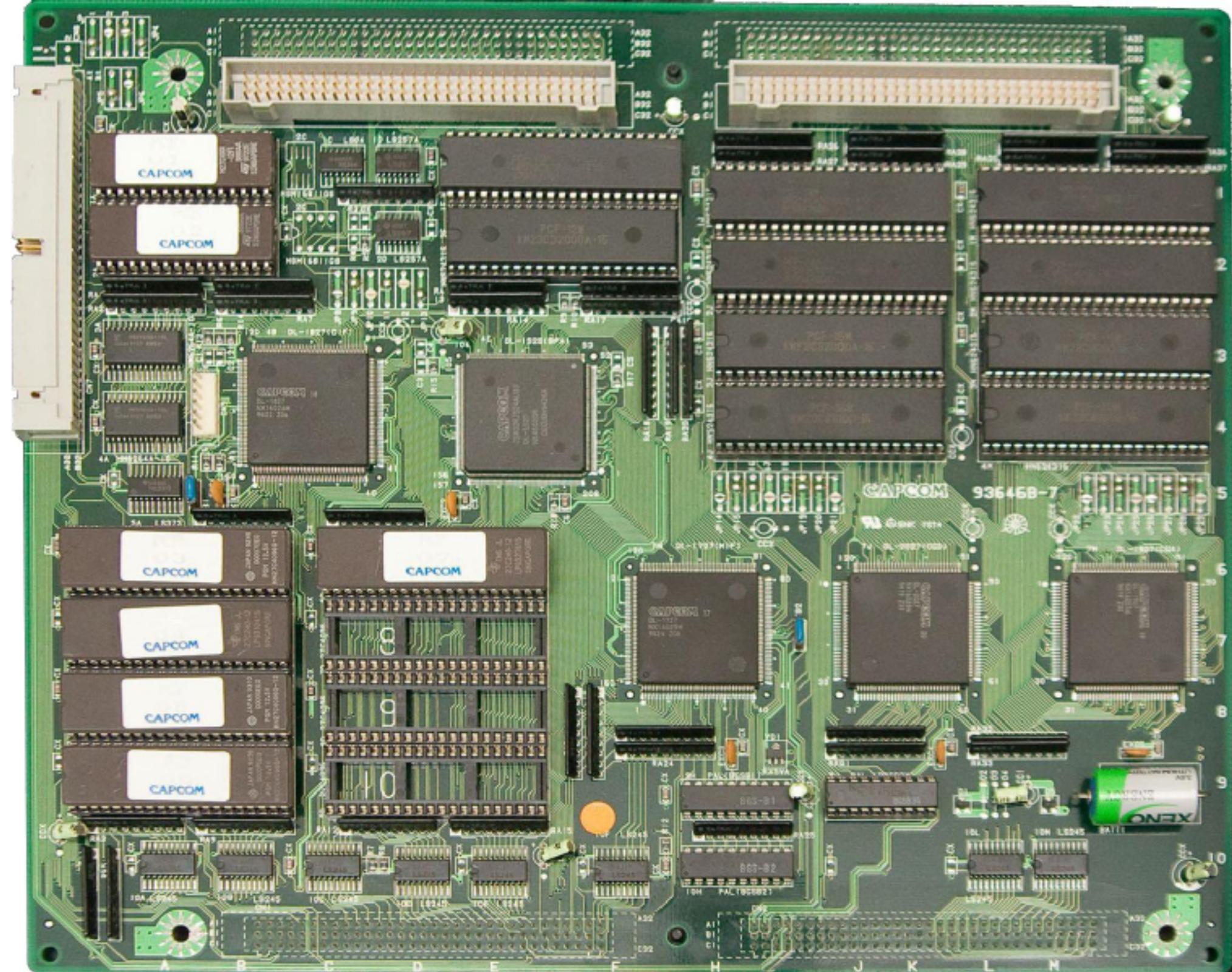
E Honda

99

T-Hawk

FIGHT  
BATTLE ON





EXPANSION CONNECTOR

SOUND  
CODE

SAMPLES  
(SOUND DATA)

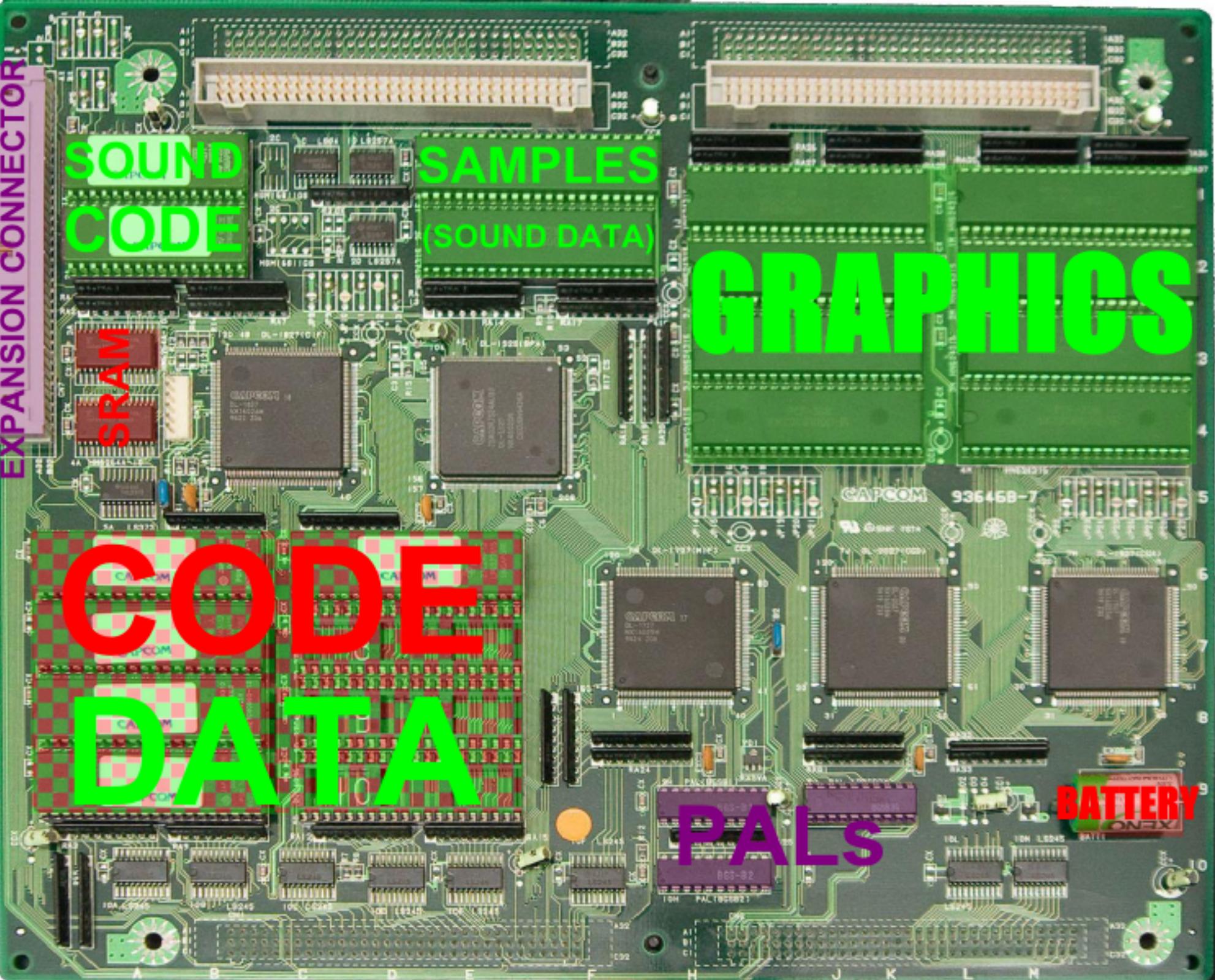
SRAM

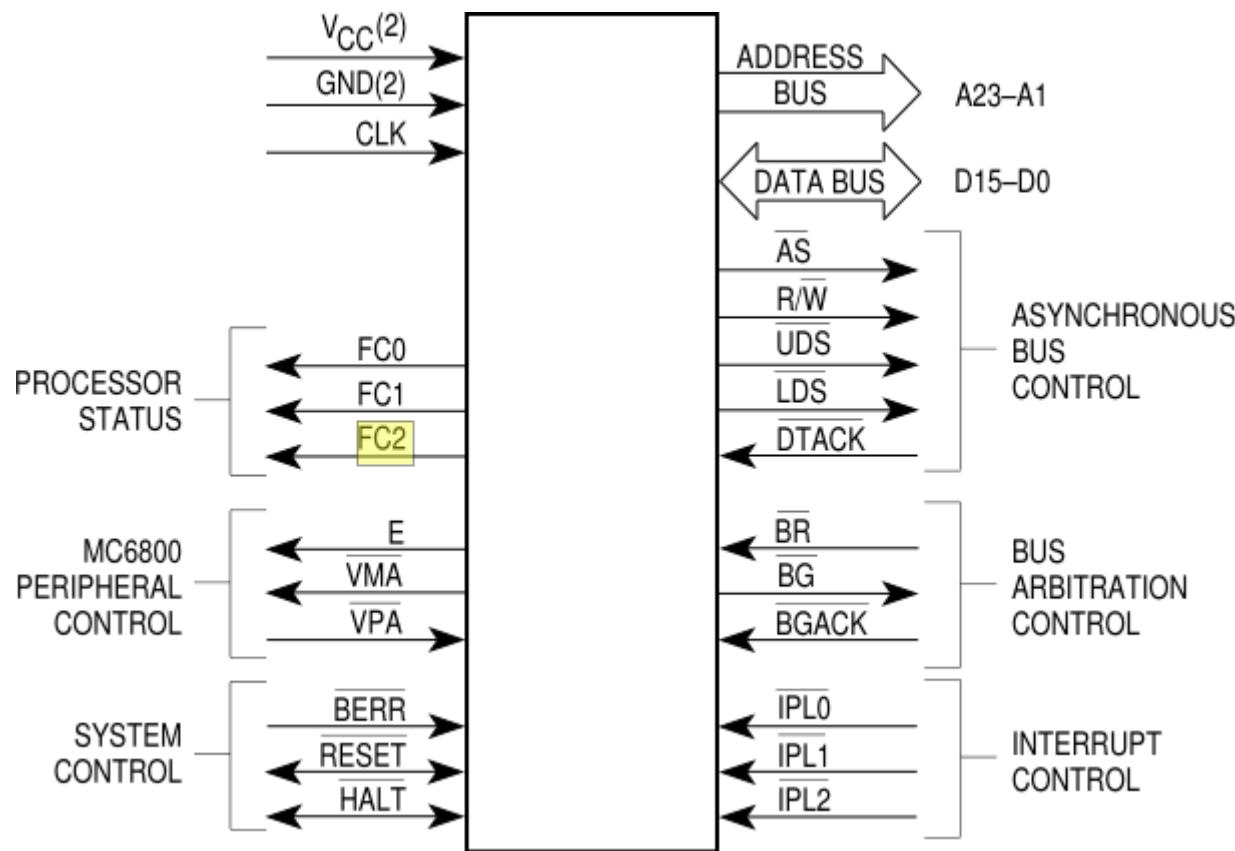
CODE  
DATA

GRAPHICS

PALS

BATTERY





**Table 3-3. Function Code Outputs**

| Function Code Output |      |      | Address Space Type    |
|----------------------|------|------|-----------------------|
| FC2                  | FC1  | FC0  |                       |
| Low                  | Low  | Low  | (Undefined, Reserved) |
| Low                  | Low  | High | User Data             |
| Low                  | High | Low  | User Program          |
| Low                  | High | High | (Undefined, Reserved) |
| High                 | Low  | Low  | (Undefined, Reserved) |
| High                 | Low  | High | Supervisor Data       |
| High                 | High | Low  | Supervisor Program    |
| High                 | High | High | CPU Space             |

**Table 6-2. Exception Vector Assignment**

| Vectors Numbers |         | Address |     | Space <sup>6</sup> | Assignment                      |
|-----------------|---------|---------|-----|--------------------|---------------------------------|
| Hex             | Decimal | Dec     | Hex |                    |                                 |
| 0               | 0       | 0       | 000 | SP                 | Reset: Initial SSP <sup>2</sup> |
| 1               | 1       | 4       | 004 | SP                 | Reset: Initial PC <sup>2</sup>  |
| 2               | 2       | 8       | 008 | SD                 | Bus Error                       |
| 3               | 3       | 12      | 00C | SD                 | Address Error                   |

2. Reset vector (0) requires four words, unlike the other vectors which only require two words, and is located in the supervisor program space.
2. The spurious interrupt vector is taken when there is a bus error.









## STREET FIGHTER ZERO STREET FIGHTER ZERO

950605

JAPAN

|         |        |
|---------|--------|
| WORK    | RAM OK |
| CPS0    | RAM OK |
| CPS1    | RAM OK |
| CPS2    | RAM OK |
| OBJECT  | RAM OK |
| Q SOUND | RAM OK |



GSound Chips have been developed by GSound  
and incorporate GSound's proprietary GSound  
sound enhancement technology.

CAPCOM

951020

CPS CHANGER

|      |        |
|------|--------|
| WORK | RAM OK |
| CPS0 | RAM OK |
| CPS1 | RAM OK |
| CPS2 | RAM OK |







Master Swordsman

L-12



L-12

Warrior of Faith

TIME  
10

# PLAYER SELECT

2P

ELF

1·P

THIEF

3P

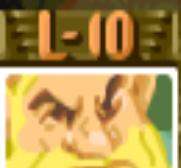
DWARF

FIGHTER

CLERIC

4P

MAGIC-U



Tireless Warrior



L-14

Master of Magic

---ILLEGAL INSTRUCTION---

ADDRESS : 7AOA0000

AC ADRS:

R W ;

**MODE**

•

•

|               |               |               |                |
|---------------|---------------|---------------|----------------|
| D0 : FFFF4A44 | D4 : 00A80158 | A0 : 6FC42E65 | A4 : 00FFB380  |
| D1 : 00000004 | D5 : 0000FFFF | A1 : 00FF081C | A5 : 00000000  |
| D2 : 00080000 | D6 : 00000000 | A2 : 007082F0 | A6 : FFFFAD80  |
| D3 : 00000008 | D7 : 00000000 | A3 : 00FFB19A | A7 : 0000000A  |
|               |               |               | SSP : 00FF081C |
|               |               |               | SR : 4A44      |



# FACEPALM

| Mode  | Generation  | Syntax   |
|---|---|--|
| <b>Register Direct Addressing</b><br>Data Register Direct<br>Address Register Direct  | EA=Dn<br>EA=An  | Dn<br>An   |
| <b>Absolute Data Addressing</b><br>Absolute Short<br>Absolute Long  | EA = (Next Word)<br>EA = (Next Two Words)   | (xxx).W<br>(xxx).L                               |
| <b>Program Counter Relative Addressing</b><br>Relative with Offset<br>Relative with Index and Offset  | EA = (PC)+d16<br>EA = (PC)+d8   | (d16,PC)<br>(d8,PC,Xn)                           |
| <b>Register Indirect Addressing</b><br>Register Indirect<br>Postincrement Register Indirect<br>Predecrement Register Indirect<br>Register Indirect with Offset<br>Indexed Register Indirect with Offset | EA = (An)<br>EA = (An), An $\leftarrow$ An+N<br>An $\leftarrow$ An-N, EA=(An)<br>EA = (An)+d16<br>EA = (An)+(Xn)+d8 | (An)<br>(An)+<br>(-An)<br>(d16,An)<br>(d8,An,Xn) |
| <b>Immediate Data Addressing</b><br>Immediate<br>Quick Immediate  | DATA = Next Word(s)<br>Inherent Data  | #<data>  |
| <b>Implied Addressing<sup>1</sup></b><br>Implied Register   | EA = SR, USP, SSP, PC,<br>VBR, SFC, DFC   | SR,USP,SSP,PC,<br>VBR, SFC,DFC                   |

This mode is similar to the mode described in **2.2.7 Address Register Indirect with Index (8-Bit Displacement) Mode**, except the PC is the base register. The operand is in memory. The operand's address is the sum of the address in the PC, the sign-extended displacement integer in the extension word's lower eight bits, and the sized, scaled, and sign-extended index operand. The value in the PC is the address of the extension word. This is a program reference allowed only for reads. The user must include the displacement, the PC, and the index register when specifying this addressing mode.

reset

nop

nop

nop

move.b #\$80, \$800030.1

nop

nop

nop

nop

nop

nop

move.b #\$0, \$800030.1

cmpi.l #\$5642194, D0

lea (\$6,PC), A4; (\$984)

bra \$d82

move.w #\$ffc0, \$80010c.1

move.w D0, (\$2f64,A5)

lea \$80001a.1, A0

movep.l (\$0,A0), D0

not.l D0

move.l D0, (\$64,A5)

cmpi.l #\$5642194, D0

jmp \$eca.l

movea.l A0, A3

move.w #\$1, D1

moveq #\$0, D3

lea (\$6,PC), A2; (\$ef4)

bra \$ef6

jmp (A4)

moveq #\$1f, D7

move.l #\$f000f000, D0

cmpi.l #\$5642194, D0

move.l (A0)+, (A1)

or.l D0, (A1)+

lea (\$6,PC), A2; (\$d94)

bra \$d96

jmp (A4)

moveq #\$1f, D7

move.l #\$f000f000, D0

move.l (A0)+, (A1)

or.l D0, (A1)+

move.l (A0)+, (A1)



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## CPS-2 Encryption Scheme Broken

Posted by **Hemos** on Sunday January 07, 2001 @10:44AM  
from the more-roms-for-all dept.



[Acheon](#) writes:

"The CPS-2 arcade board from Capcom uses some hard encryption scheme that has been a very hot issue in emulation for years. Yet finally the code was broken [Final Burn](#), a quite recent arcade emulator,

sh

su

St

sc

ac

# The Register®

**CPS2 arcade encryption smashed**

**Morality debate ensues**

By [Lucy Sherriff](#) • Get more from this author

Posted in [Business](#), 8th January 2001 19:44 GMT

A group of gaming enthusiasts called the [CPS-2 Shock Team](#) claims to have broken the encryption on the CPS-2 arcade board from [Capcom](#).

While the algorithm itself has not been compromised, the group has managed to extract unencrypted data from the board using the 68k code on the hardware itself, according to a poster on [SlashDot](#). Whether this actually constitutes a break of encryption is a subject under discussion at the aforementioned geek site.



TOTAL

65200

1P

COM INSERT COIN

45

ROCK HOWARD

MOTARU FUTABA

CREDIT 00



# NEOGEO HACKER by Razoola

Use joystick and button 1.

- [>] Memory Viewer.
- [>] Dump data.
- [>] Verify dump.
- [>] Music player.
- [>] Run Loaded Game.

**DO NOT DISTRIBUTE THIS SOFTWARE.**

# NEOGEO HACKER by Razoola

Start PO software & make sure lead connected. (button 1 to continue)

Use joystick to choose a region to dump. (button 1 to continue)

> ROM BANK 1 <

NOW DUMPING PLEASE WAIT.

[XXXXX+-----]

**DO NOT DISTRIBUTE THIS SOFTWARE.**

Use the joystick to scroll and the following buttons for extras.

- Button 1 = Speed scroll.
- Button 2 = Jump to bank region.
- Button 3 = Toggle selected bank.
- Button 4 = Exit.

| OFFSET   | +0   | +2   | +4   | +6   | BANK=0 |
|----------|------|------|------|------|--------|
| 00000000 | 0010 | F300 | 0000 | 0402 |        |
| 00000008 | 00C0 | D408 | 00C0 | 040E |        |
| 00000010 | 0000 | 0414 | 0000 | 0426 |        |
| 00000018 | 00C0 | D426 | 00C0 | 0426 |        |
| 00000020 | 0000 | 041A | 0000 | 0420 |        |
| 00000028 | 00C0 | D42B | 00C0 | 0426 |        |
| 00000030 | 0000 | 042B | 0000 | 0426 |        |
| 00000038 | 0000 | 042B | 0000 | 0426 |        |
| 00000040 | 00C0 | D42B | 00C0 | 0426 |        |
| 00000048 | 0000 | 042B | 0000 | 0426 |        |
| 00000050 | 00C0 | D42B | 00C0 | 0426 |        |
| 00000058 | 0000 | 042B | 0000 | 0426 |        |
| 00000060 | 00C0 | D42B | 00C0 | 0426 |        |
| 00000068 | 0000 | 2560 | 0000 | 0426 |        |
| 00000070 | 0000 | 042B | 0000 | 0426 |        |
| 00000078 | 00C0 | D42B | 00C0 | 0426 |        |

# NEOGEO HACKER by Razoola

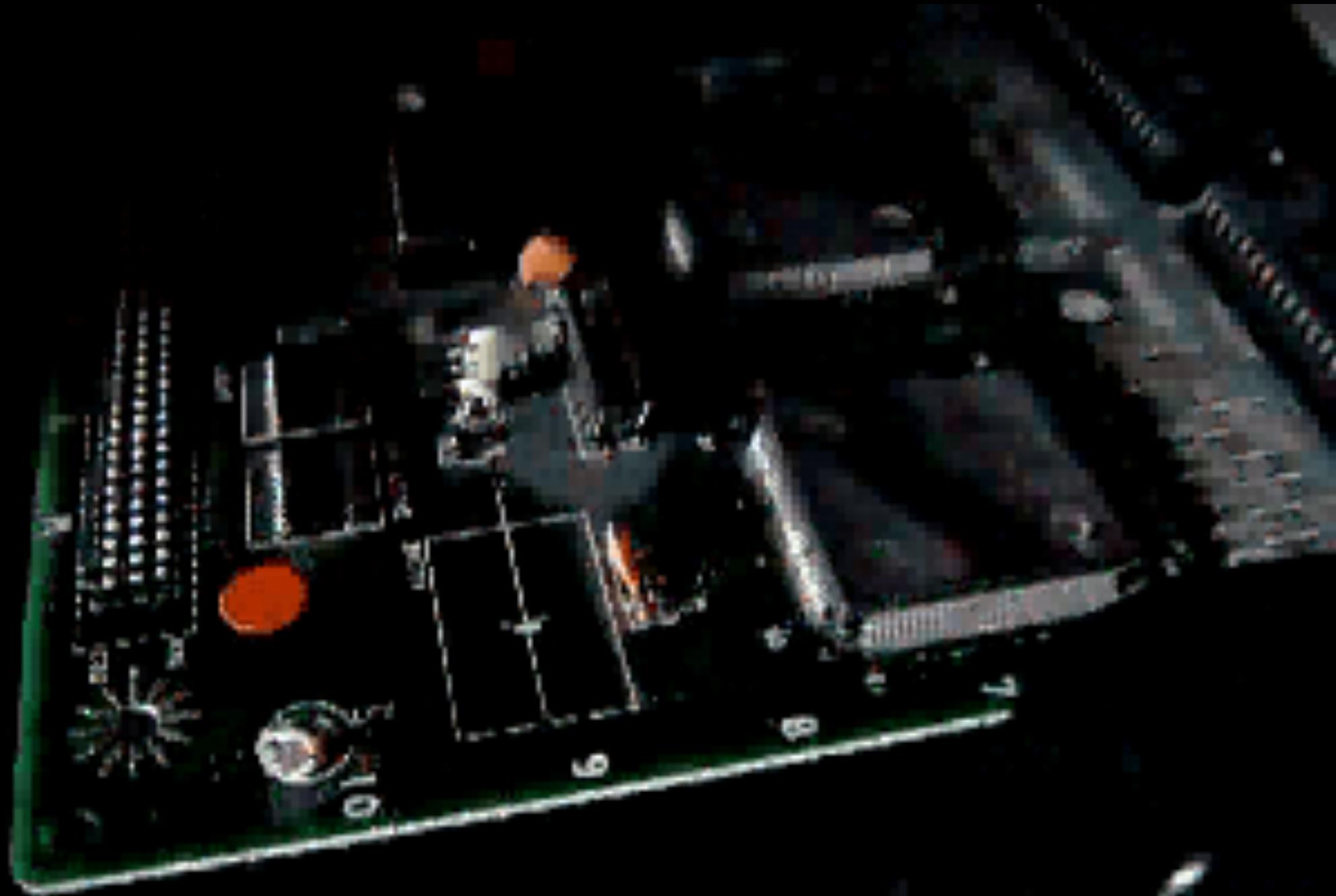
Use PO tool to create needed files for Verify. (button 1 to continue)

Use joystick to choose a region to verify. (button 1 to continue)

> ROM AREA <

VERIFYING ADDRESS #000032F2  
STATUS : GOOD

**DO NOT DISTRIBUTE THIS SOFTWARE.**



```
move.w #$7000, $400000.1
move.w #$0, $8040a0.1
move.w #$807d, $400002.1
move.w #$1234, $400004.1
move.w #$0, $400006.1
move.w #$40, $400008.1
move.w #$10, $40000a.1
move.w #$f00, $804040.1
cmpi.l #$5642194, D0
lea    ($6,PC), A4; ($9d6)
bra    $e82
move.w #$ffc0, $80010c.1
move.w #$0, $80010e.1
move.w #$9000, $800100.1
move.w #$9080, $800102.1
move.w #$90c0, $800104.1
```

```
move.w #$7000, $fffff0.1
move.w #$0, $8040a0.1
move.w #$807d, $fffff2.1
move.w #$1234, $fffff4.1
move.w #$0, $fffff6.1
move.w #$40, $fffff8.1
move.w #$10, $fffffa.1
move.w #$f00, $804040.1
cmpi.l #$5642194, D0
lea    ($6,PC), A4; ($9d6)
bra    $e82
move.w #$ffc0, $80010c.1
move.w #$0, $80010e.1
move.w #$9000, $800100.1
move.w #$9080, $800102.1
move.w #$90c0, $800104.1
move.w #$9100, $800106.1
```

ON BOARD RAM TEST

WORK RAM = GOOD  
GFX RAM = GOOD  
OBJECT RAM = GOOD  
SOUND INIT = GOOD  
Q SOUND RAM = GOOD

THIS GAME BOARD LOOKS OK

(C) RAZ00LA, WWW.CPS2SHOCK.COM

# CAPCOM

## PHOENIX EDITION

PHOENIX SELECT MINI MENU

> REGION SETUP <

JKUEBOX PLAYER

START GAME

PHOENIX SELECT MINI MENU

CHOOSE YOUR REGION

-> ORIGINAL <-

PHOENIX SELECT MINI MENU

JKUEBOX PLAYER

-> 0000 <-

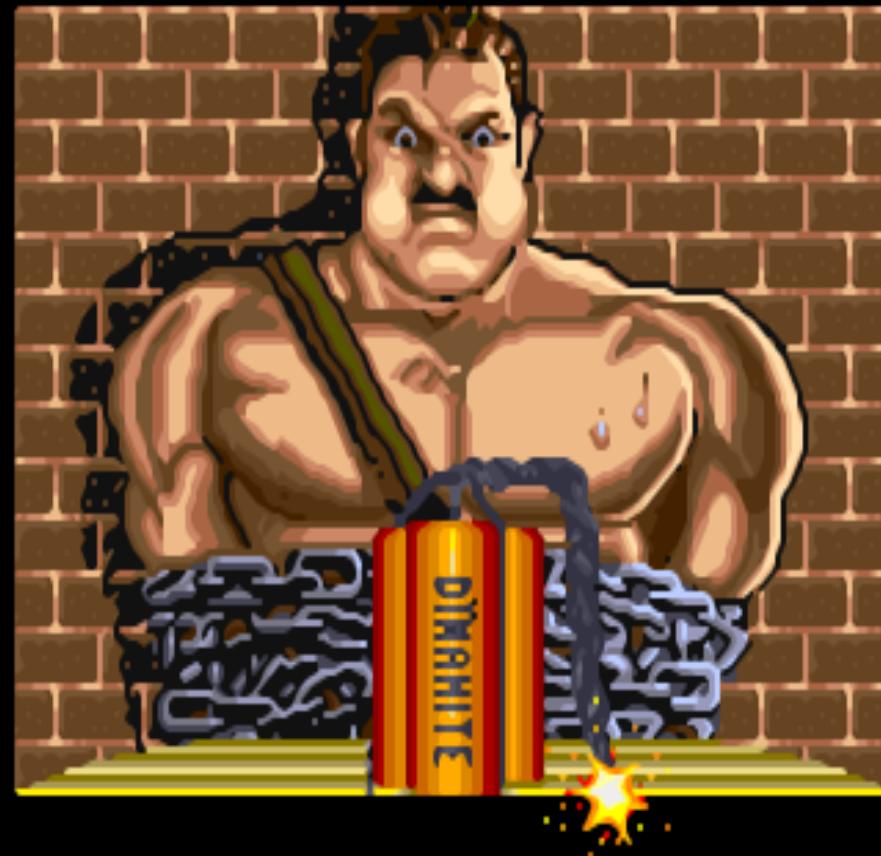
(1)=PLAY SOUND  
(2)=STOP (3)=EXIT

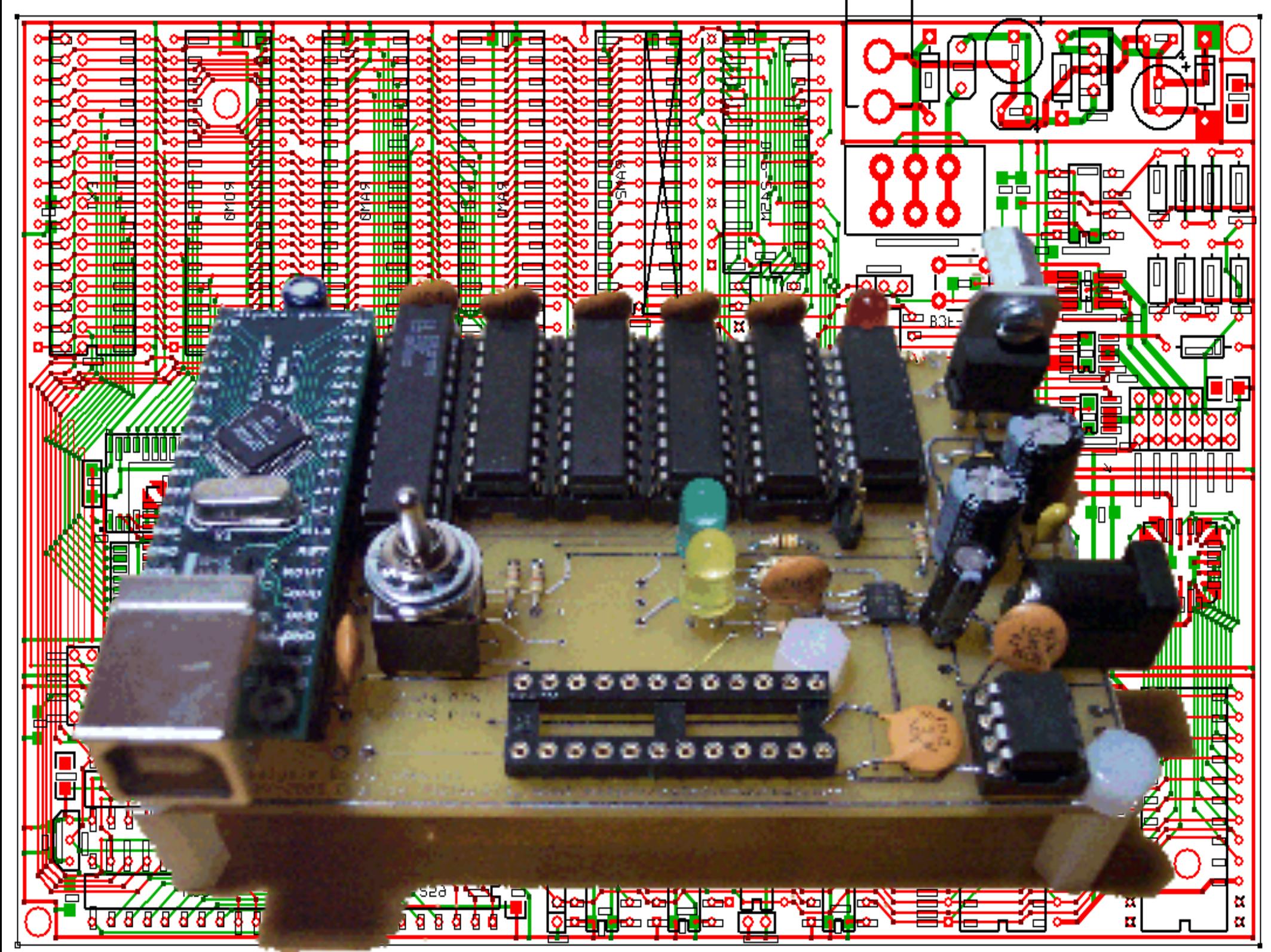


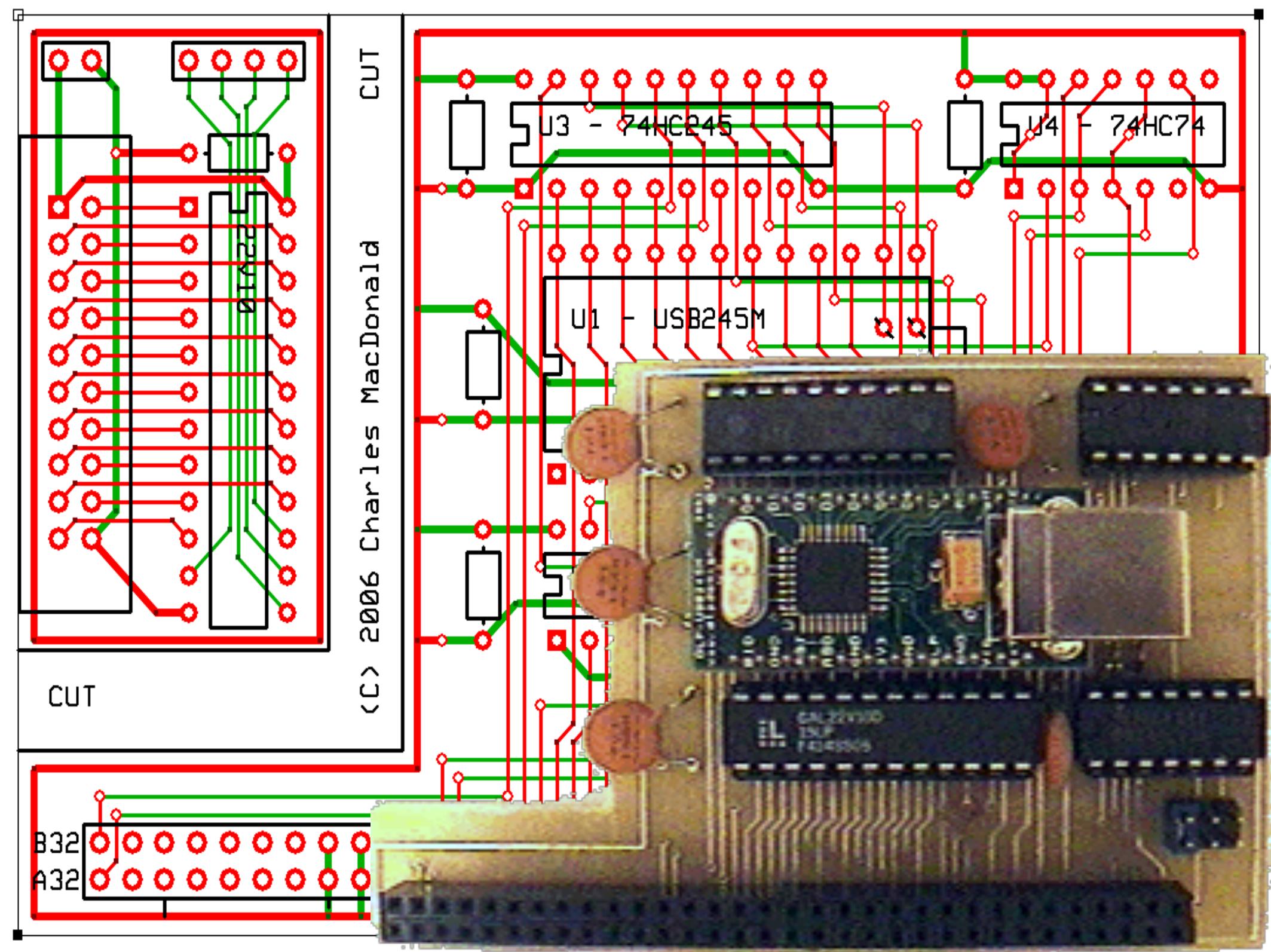
# GIGA MAX 2

THE  
POWER FIGHTERS

CONTINUE 9 NIN 20000 TIME 22 INSERT COIN

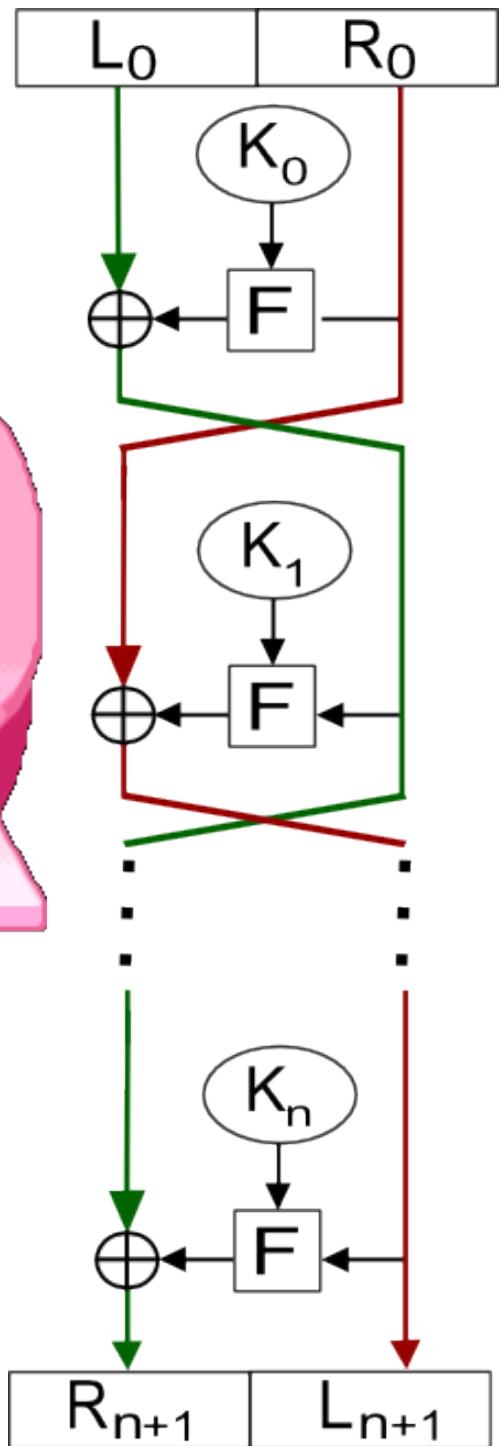
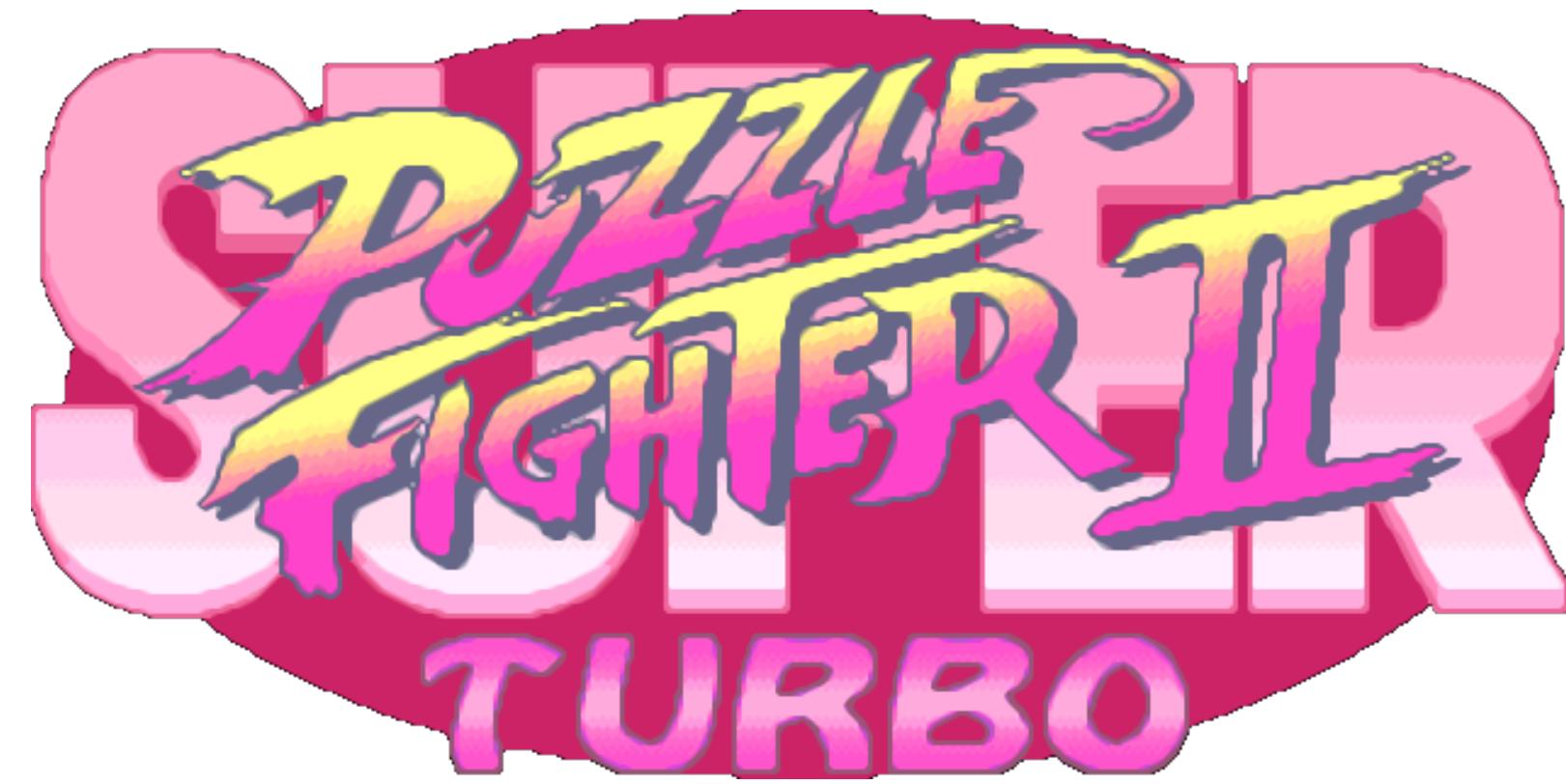






CRS-2 USB Loader  
CRS 2009-2008 Charles Macdonald  
HOME: [HTTP://CRS2.M2.EMUVIEW.COM](http://crs2.m2.emuview.com)  
PC: 192.168.0.100  
IP: 192.168.0.1884





ROCKMAN THE POWER BATTLE

9 5 0 9 2 2

J A P A N

WORK      RAM OK  
CPS0     RAM OK  
CPS1     RAM OK  
CPS2     RAM OK

WORK      RAM OK  
CPS0     RAM OK  
CPS1     RAM OK  
CPS2     RAM OK  
OBJECT    RAM OK  
Q SOUND   RAM OK



3 . S O U N D & V O I C E T E S T

SOUND CODE No. 0000

CODE +01 = 1P UP  
CODE -01 = 1P DOWN  
CODE +10 = 1P RIGHT  
CODE -10 = 1P LEFT  
REQUEST = 1P SHOT1  
STOP = 1P SHOT2

3 . S O U N D & V O I C E T E S T

SOUND CODE No. 0000

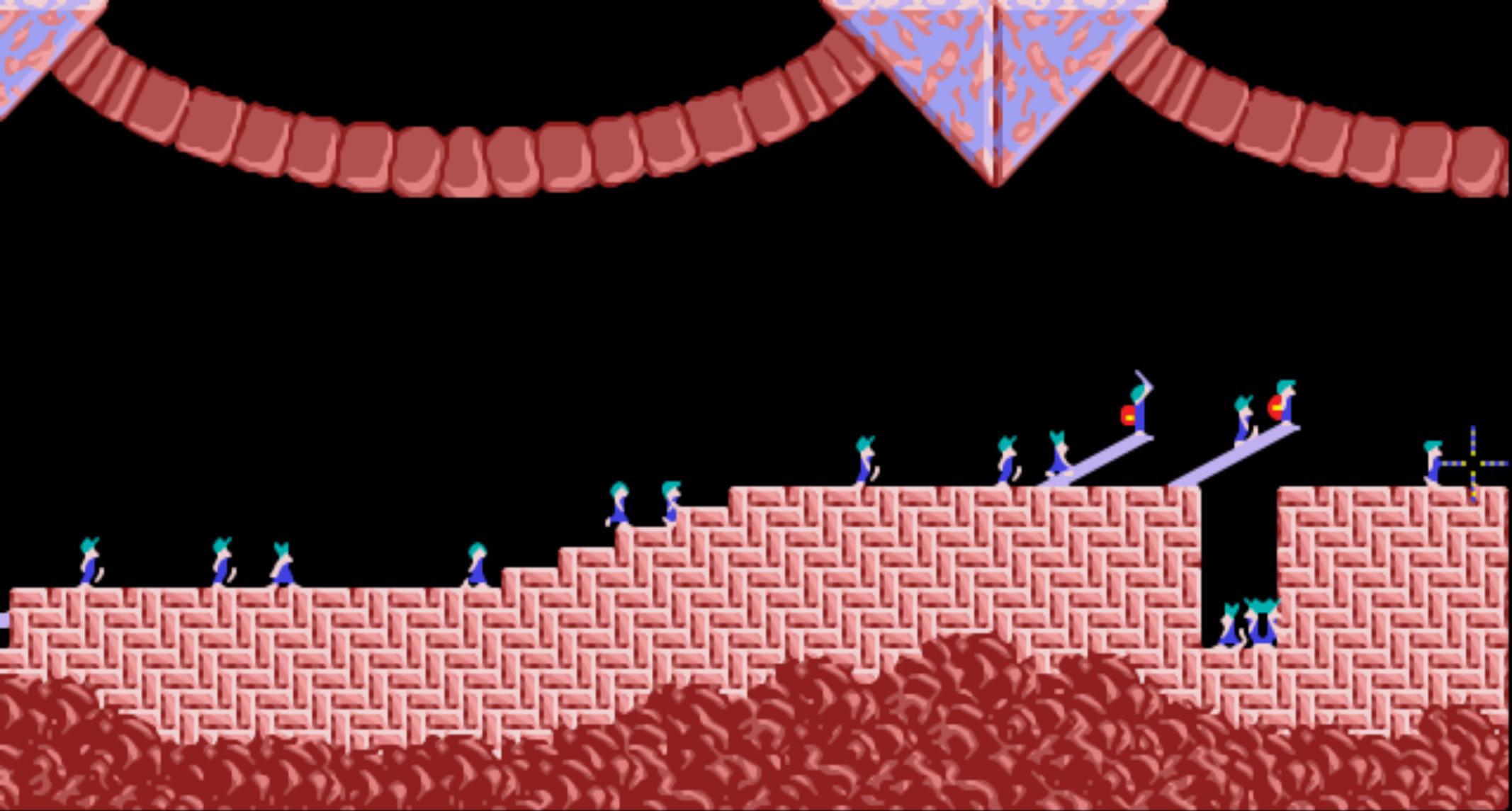
CODE +01 = 1P UP  
CODE -01 = 1P DOWN  
CODE +10 = 1P RIGHT  
CODE -10 = 1P LEFT  
REQUEST = 1P SHOT1  
STOP = 1P SHOT2

VOLUME  
39  
MIN ++++++ MAX

EXIT = 1P & 2P START

EXIT = 1P & 2P START

~Epilogue~



Saved: 00

1:21

Credits: 00

*Felicia*

CHALLENGER

*Demitri*

51

Special

Special

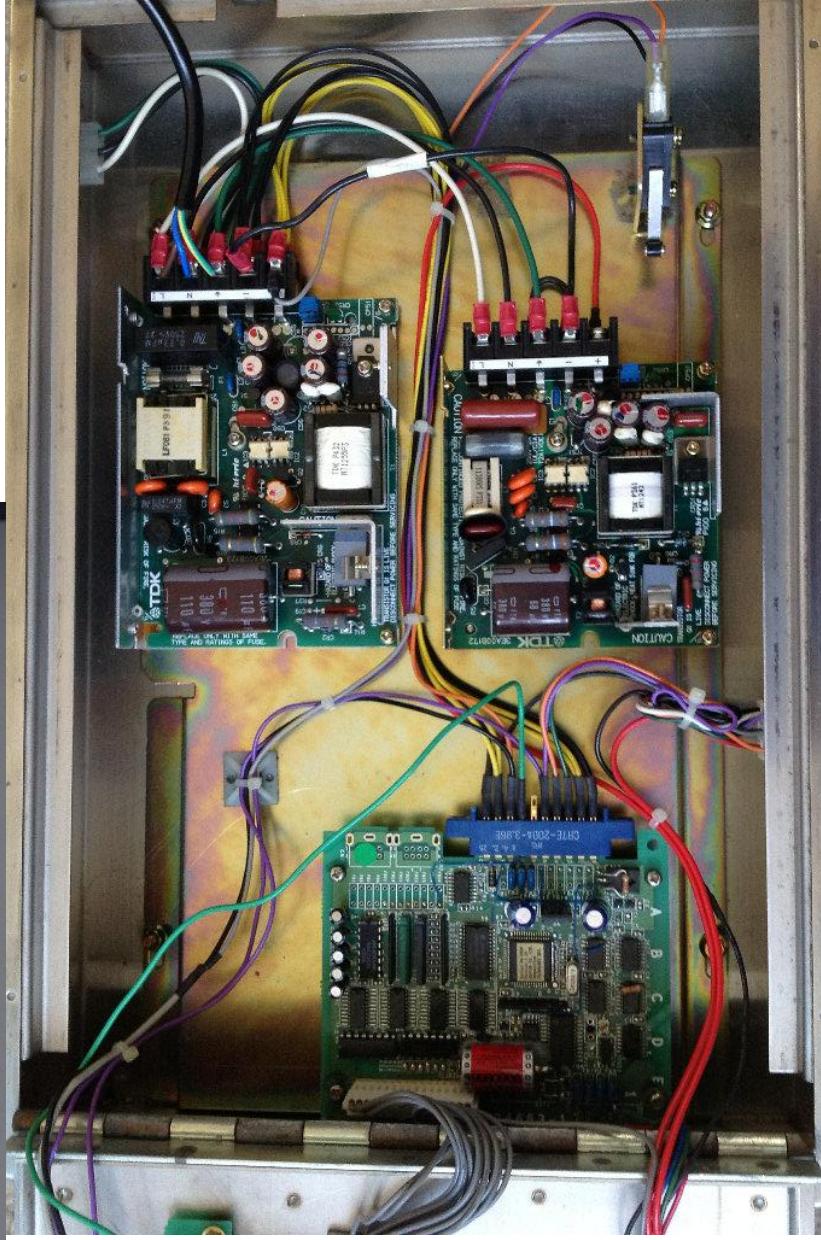
狼

CAS



A dark, metallic, robotic figure with glowing red eyes and a mechanical arm holding a glowing blue sword.

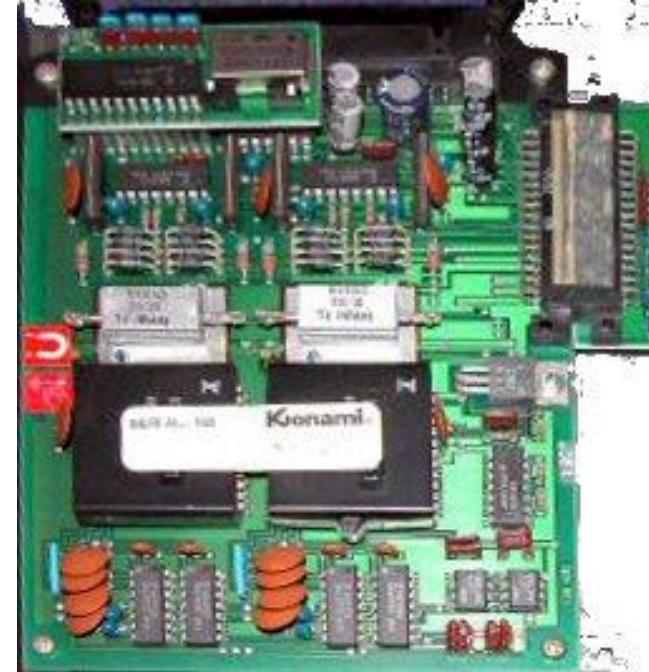
**AWESOME VICTORY**



WARMING UP NOW



PRESENTED BY KONAMI



# Links

- CPS2Shock

<http://www.cps2shock.com>

[http://web.archive.org/web/\\*/http://cps2shock.retrogames.com](http://web.archive.org/web/*/http://cps2shock.retrogames.com)

- Charles MacDonald's Home Page

<http://cgfm2.emuvIEWS.com/old2005.php>

- Nicola's MAME Ramblings

<http://mamelife.blogspot.com/2006/01/8gb-2-is-still-4gb.html>

- Notas de Andy

[http://andreasnaive.blogspot.com/2006\\_12\\_01\\_archive.html](http://andreasnaive.blogspot.com/2006_12_01_archive.html)

- CPS2 encryption

<http://mamedev.org/source/src/mame/machine/cps2crpt.c.html>



1P 104100 HI 104100 INSERT COIN

06800

Ryu

25





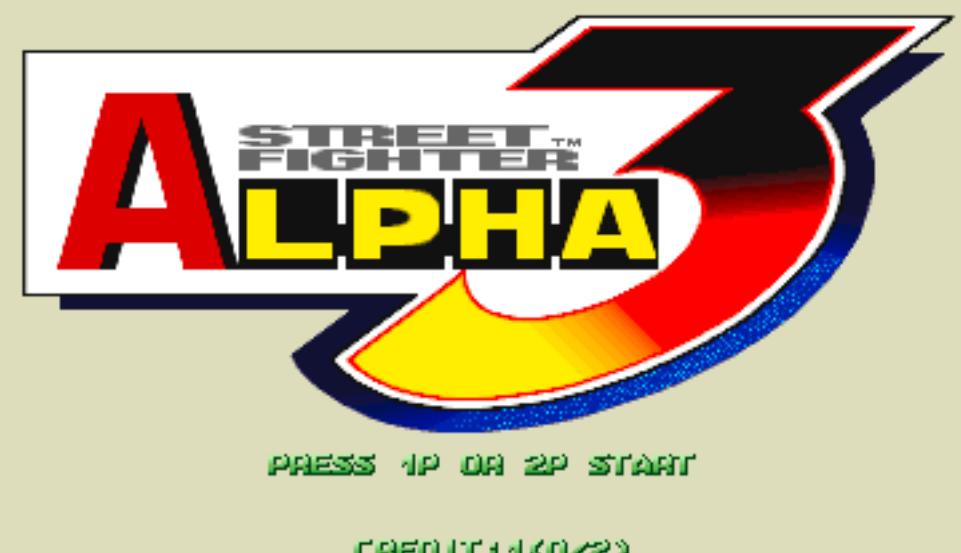
PRESS 1P OR 2P START

CREDIT: 1



PRESS 1P OR 2P START

CREDIT: 1 (0/2)



PRESS 1P OR 2P START

CREDIT: 1 (0/2)



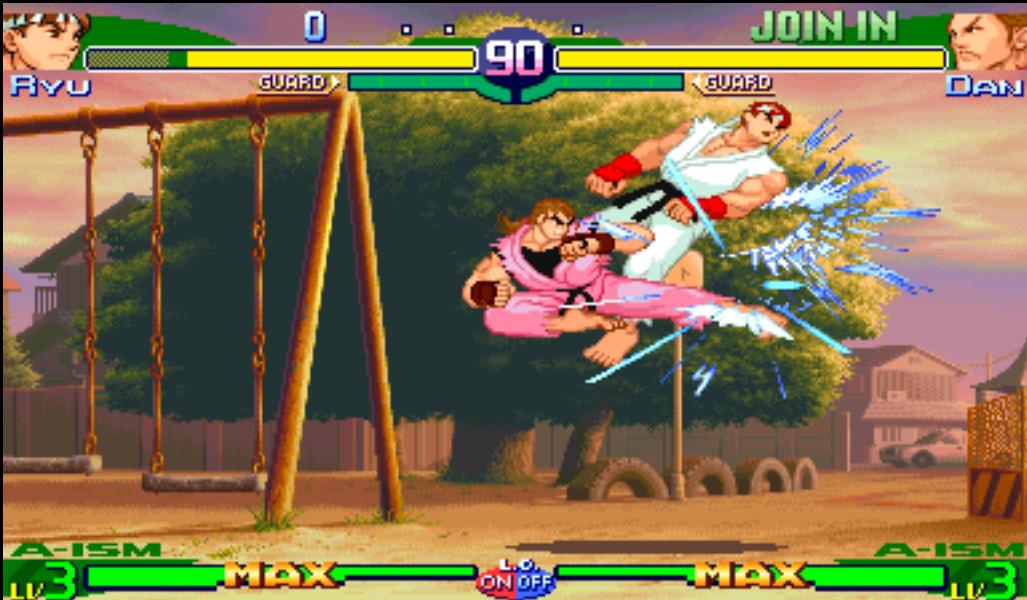
PRESS 1P OR 2P START

CREDIT: 1 (1/2)



PRESS 1P OR 2P START

CREDIT: 1 (0/2)



## 1. INPUT TEST

|              |                   |                   |
|--------------|-------------------|-------------------|
| SERVICE TEST | 0                 |                   |
| COIN START   | 1P<br>0           | 2P<br>0           |
| LEVER        | 000<br>000<br>000 | 000<br>000<br>000 |
| SHOT         | 000<br>000        | 000               |

LP LP → LK HP S+LP

## 4. COLOR BAR

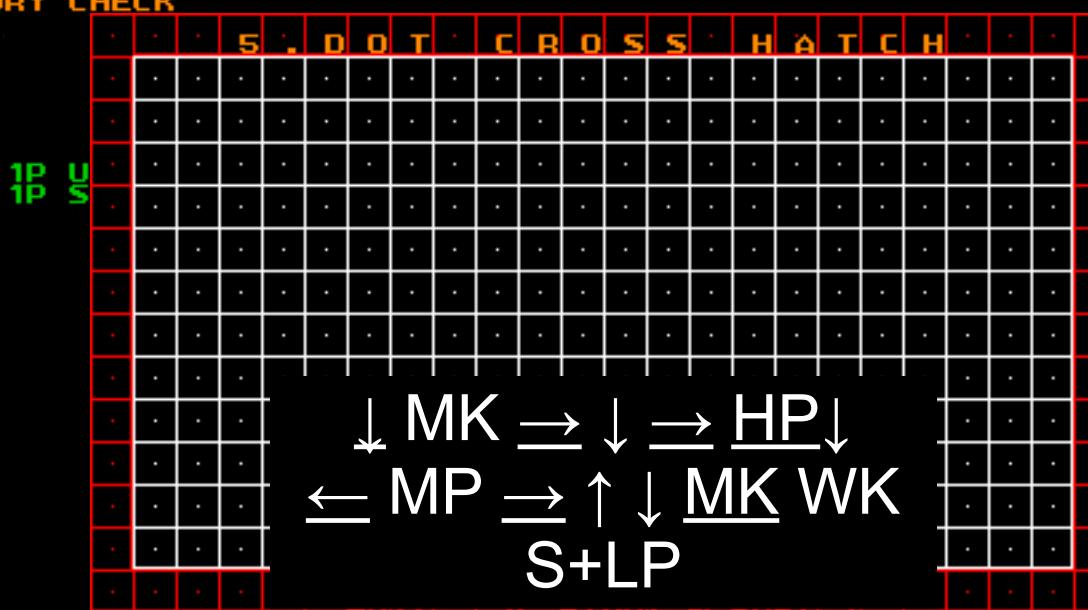
LK HK MP MP↑ S+LP

## TEST MENU

- > 1 INPUT
- 2 OUTPUT
- 3 SOUND & VOICE
- 4 COLOR
- 5 DOT CROSS HATCH
- 6 GAME DATA
- 7 CONFIGURATION
- 8 MEMORY CHECK

## 6. GAME DATA

|          |         |        |
|----------|---------|--------|
| COIN     | COUNTER | 000036 |
| SERVICE  | COUNTER | 000000 |
| FREEPLAY | COUNTER | 000000 |

→ ↓ ← HK → ↓ LP ↑  
S+LP



CPS2, 1994

PC, 1999



A L I E N

TM

VS.

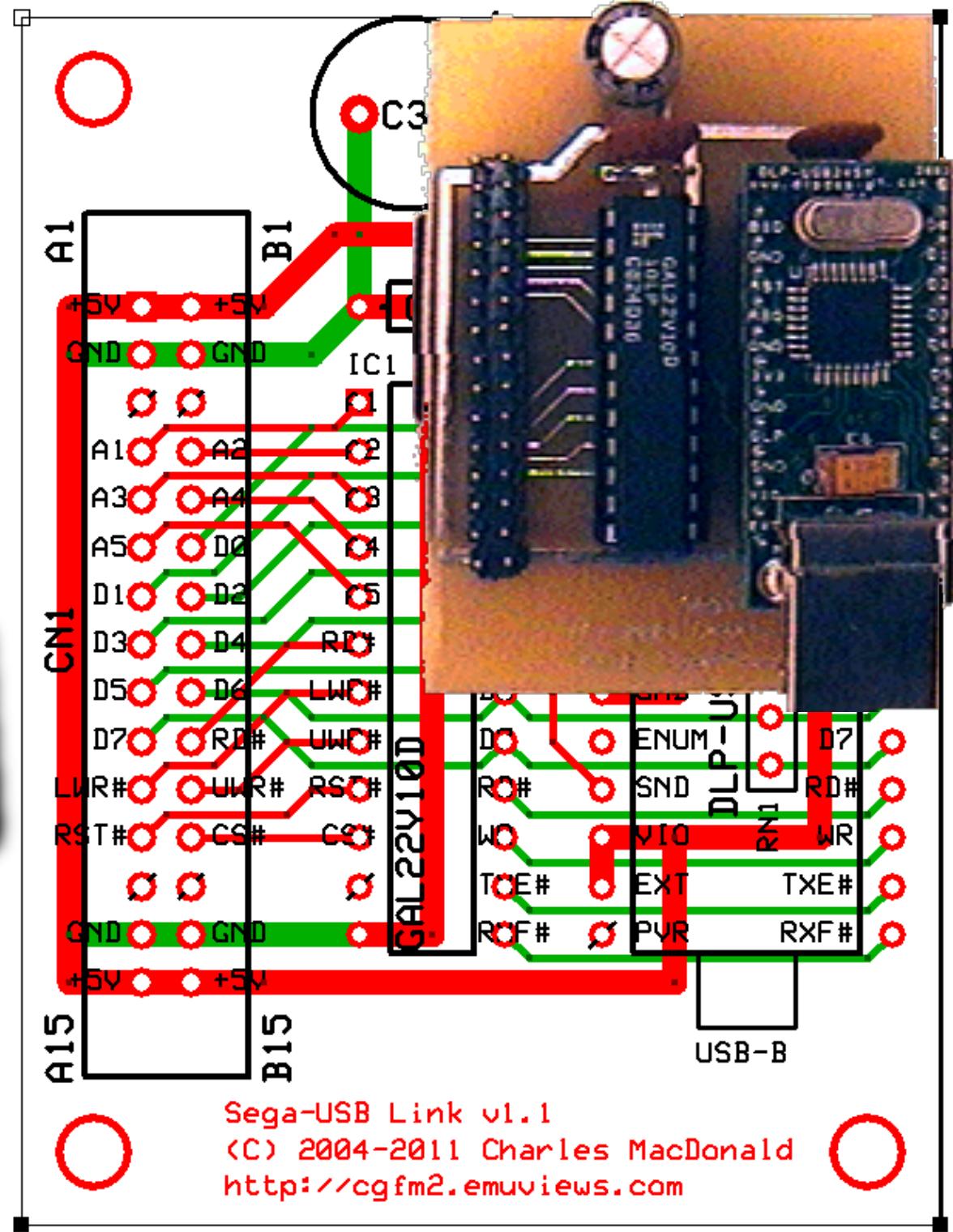
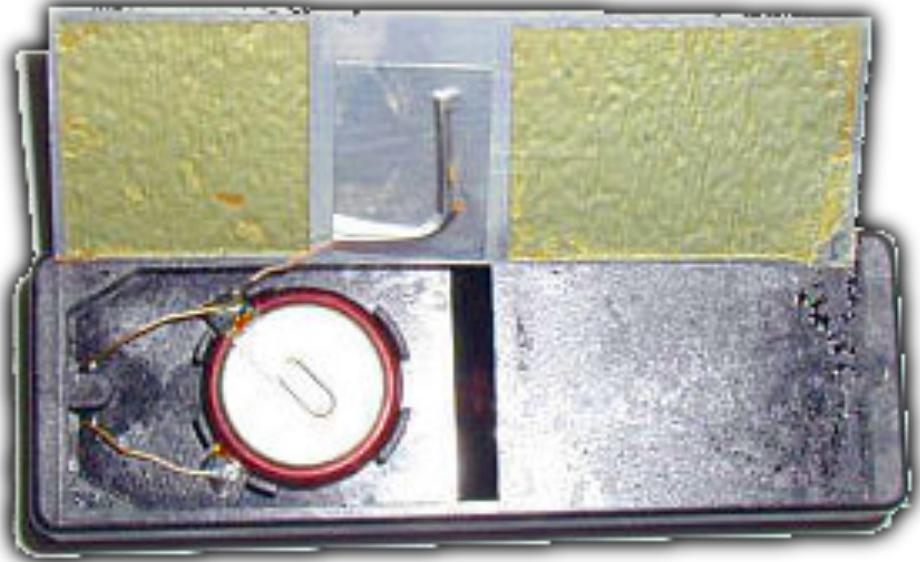
PREDATOR™

PRESS START BUTTON  
UP TO TWO PLAYERS

A L I E N S

V E R S U S

PREDATOR





**WORK**

**RAM** **OK**

**CPS0**

**RAM** **OK**

**CPS1**

**RAM** **OK**

**CPS2**

**RAM** **OK**

**WORK**

**RAM** **OK**

**WORK**

**RAM** **OK**

**CPS0**

**RAM** **OK**

**CPS0**

**RAM** **OK**

**CPS1**

**RAM** **OK**

**CPS1**

**RAM** **OK**

**CPS2**

**RAM** **OK**

**CPS2**

**RAM** **OK**

**OBJECT**

**RAM** **OK**

**OBJECT**

**RAM** **OK**

**Q SOUND**

**RAM** **OK**

**Q SOUND**

**RAM** **OK**



## PC-2-NEO DATA TRANSFER

BE SURE CABLE IS CONNECTED  
VIA THE 2-UP JOYSTICK PORT  
AND PC SOFTWARE IS RUNNING

### -- CURRENT STATUS -- AWAITING INSTRUCTION

----- BUTTON CONTROL -----  
PRESS (C) TO STOP AND EXIT

GOTO [WWW.UNIVERSEBIOS.COM](http://WWW.UNIVERSEBIOS.COM) TO  
FIND LATEST NEWS AND UPDATES



|              |         |
|--------------|---------|
| CONTINUE     | WITH    |
| DIFFICULTY   | LEVEL 4 |
| HOW TO PLAY  | WITH    |
| DEMO SOUND   | WITH    |
| I COIN MATCH | WITHOUT |
| CREDIT/LEVEL | ON/ON   |
| VIOLENCE     | LEVEL 3 |
| SPECIAL MOVE | WITH    |
| LANGUAGE     | ENGLISH |

----- BUTTON CONTROL -----  
(A-B)=SET (D)=DEF (C)=EXIT

GOTO [WWW.UNIVERSEBIOS.COM](http://WWW.UNIVERSEBIOS.COM) TO  
FIND LATEST NEWS AND UPDATES



- [ ] REGION SETUP (EUROPE ARCADE)
- [ ] GENERAL BIOS SETTINGS
- [ ] GAMECART CRC CHECK
- [ ] JUKEBOX PLAYER
- [ ] PC-2-NEO (MV-EX)

----- Button C to Exit -----  
GOTO [WWW.UNIVERSEBIOS.COM](http://WWW.UNIVERSEBIOS.COM) TO



## GAMECART CHECK ID=0232

GETTING ORG32 ON DATA HELP  
IN THE CARTS PROGRAM ROMS.

|     |        |
|-----|--------|
| ROM | Region |
| ROM | Bank 0 |
| ROM | Bank 1 |
| ROM | Bank 2 |
| ROM | Bank 3 |



CALCULATING.. (C) TO ABORT

GOTO [WWW.UNIVERSEBIOS.COM](http://WWW.UNIVERSEBIOS.COM) TO  
FIND LATEST NEWS AND UPDATES



LEVEL-4 CREDITS-02

# SNK forever



LEVEL-4 CREDITS-02



## JUKEBOX MUSIC PLAYER

SIT BACK AND CHILL TO YOUR  
FAVORITE NEOGEO GAME TUNES

SELECT A GAME CODE

CURRENT CODE: 0x0721

----- BUTTON CONTROL -----  
(A)=PLAY (B)=STOP (C)=EXIT

GOTO [WWW.UNIVERSEBIOS.COM](http://WWW.UNIVERSEBIOS.COM) TO  
FIND LATEST NEWS AND UPDATES

1000000  
8

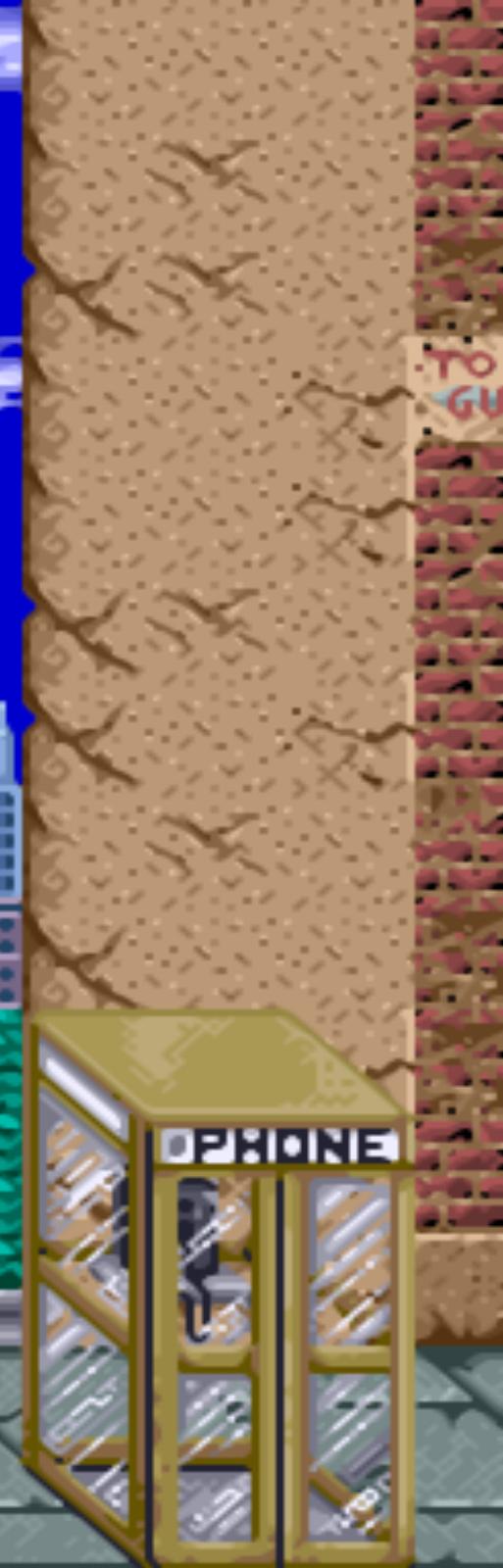
100 TIME 2P

95



1P 000

TIME EP  
98





TOP

185800

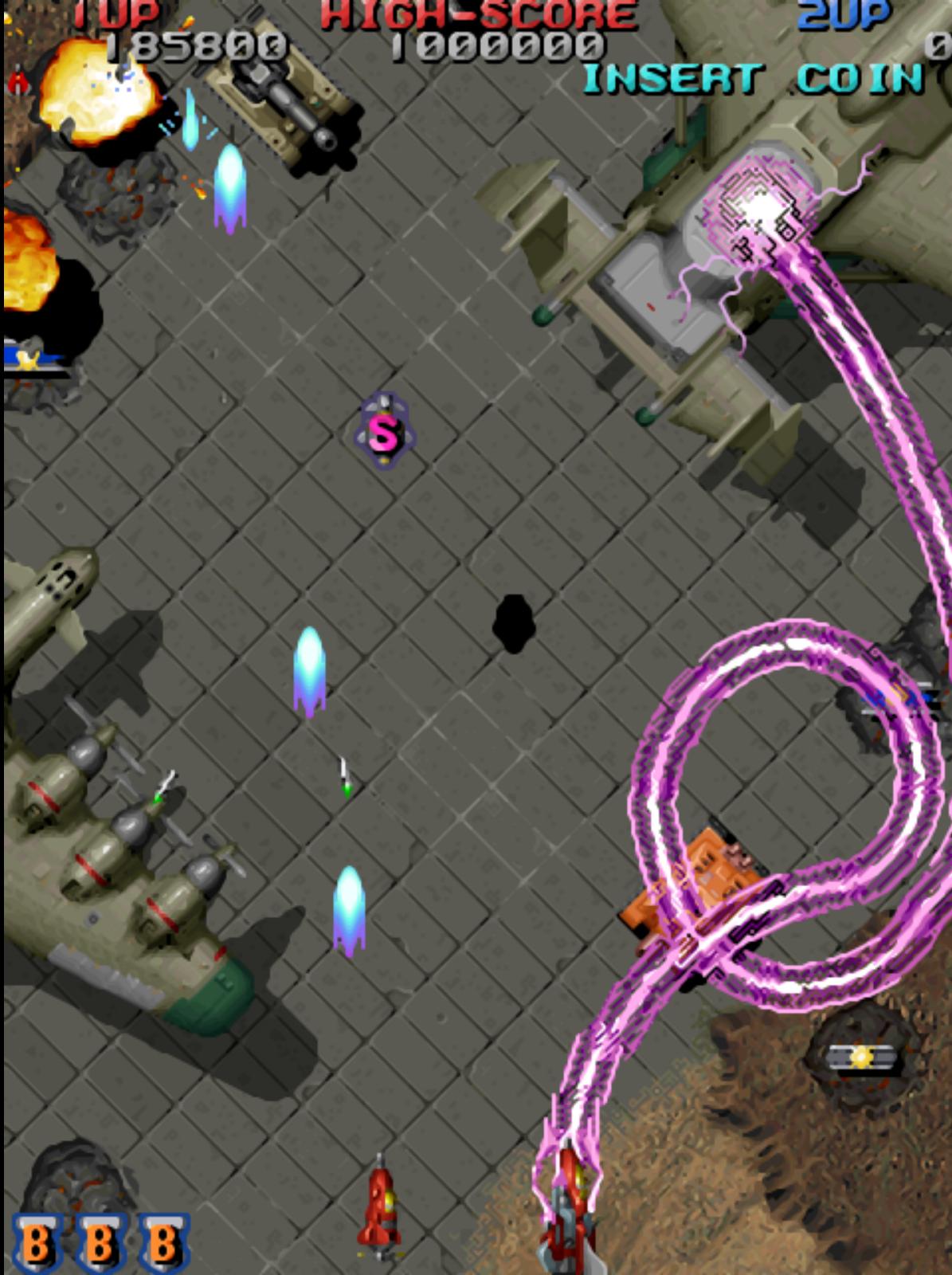
HIGH-SCORE

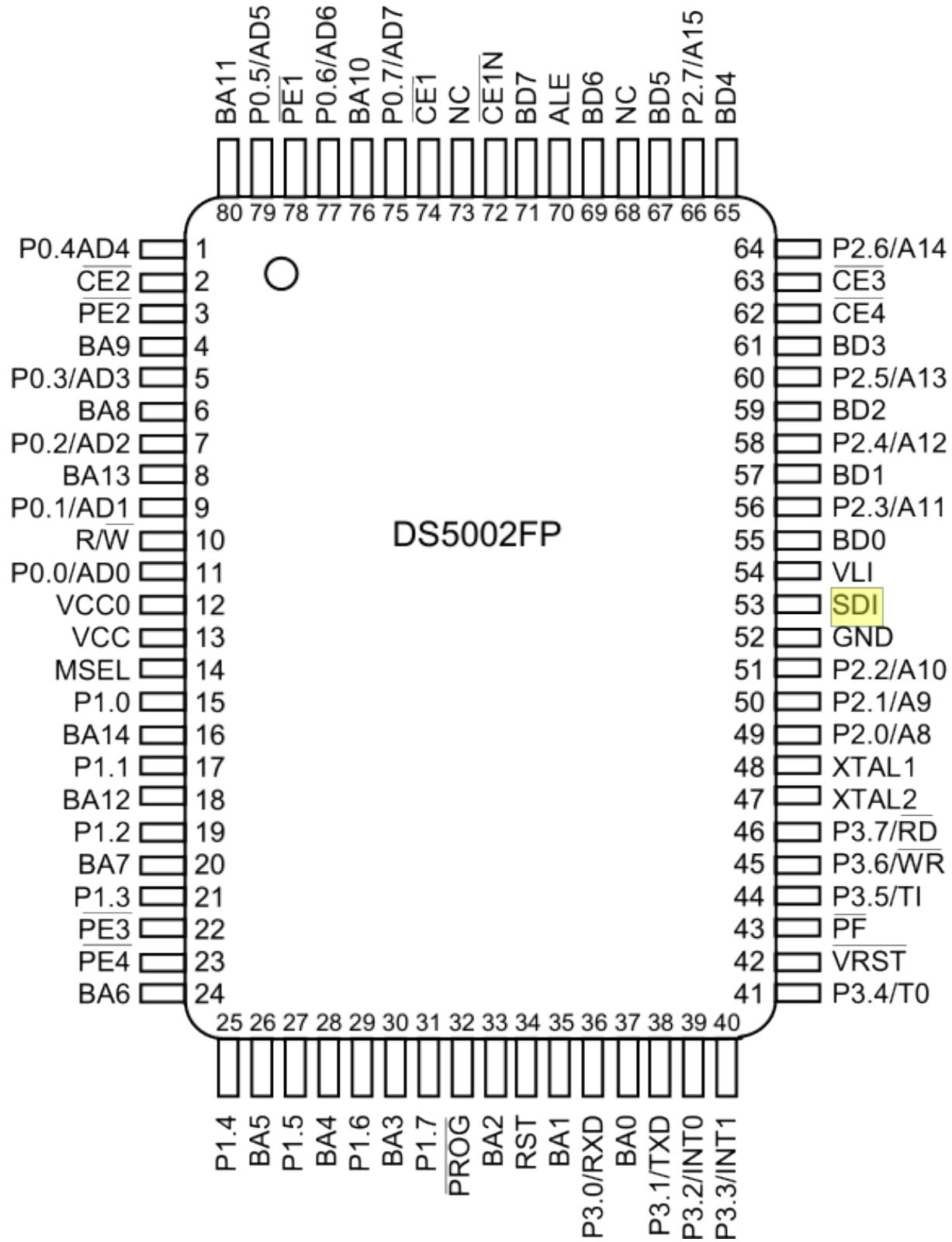
1000000

2UP

INSERT COIN

B B B

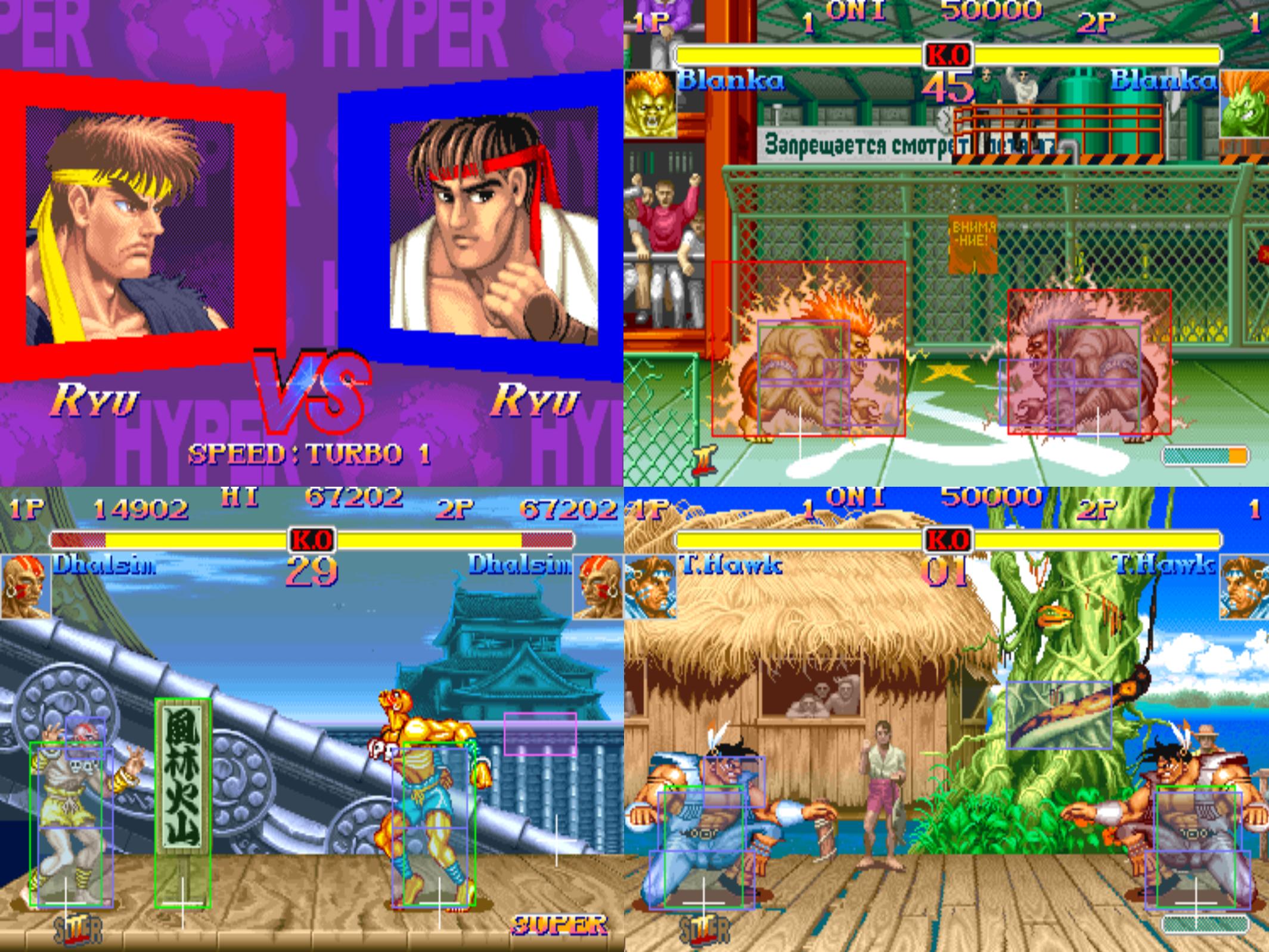






TAITO A78-01  
JPH1011P  
185  
PS4 J8635







The End...?