POWER_SUPPLY

VBAT
5V
SW1
U1
LT1117-5.0
IN   OUT
GND

CN1
Alkaline
9V
550mAh

C3
100μF x 16V

C2
100μF x 16V

MICROCONTROLLER

5V

U6
ATMEGA328P-PU

7	VCC	PB0	14	GPIO_LED
20	AVCC	PB1	15	GPIO_BUZZER
21	AREF	PB2	16	

C14
100nF
C17
100nF

		PC0	23	ADC_C4_EXPLOSIVE_1
		PC1	24	ADC_C4_EXPLOSIVE_2
		PC2	25	ADC_C4_EXPLOSIVE_3
8*2	GND	PC3	26	
		PC4	27	LCD_I2C_SDA
9	PB6	PC5	28	LCD_I2C_SCL

		PD0	2	KEYPAD_ROW_1
		PD1	3	
10	PB7	PD2	4	KEYPAD_ROW_3
		PD3	5	KEYPAD_ROW_4
		PD4	6	KEYPAD_COL_1
		PD5	11	KEYPAD_COL_2
		PD6	12	KEYPAD_COL_3
		PD7	13	KEYPAD_ROW_2

5V
CN2
ICSP

2		1		MCU_ICSP_MISO	18	PB4
4		3		MCU_ICSP_SCLK	19	PB5
6		5		MCU_ICSP_RESET	1	PC6/RESET
				MCU_ICSP_MOSI	17	PB3

MCU_ICSP_MOSI

** needs custom bootloader **
checks Firmware\CUSTOM\README.txt

RED_LED

5V

R7
100R (5%)

LED4
RED

GPIO_LED
R3
100R (5%)
Q3
SQ2310

R5
10k (5%)

BUZZER

GPIO_BUZZER
R4
100R (5%)

LS1
Piezo

LCD_DISPLAY

5V
5V

DS1
16x2 LCD Display

VDD		A
V0		
VSS	RS R/W E DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7	K

RV1
10k

Q1
BC817

R18
1k (5%)
LCD_LED_BACKLIGHT

5V 5V 5V

U4
PCF8574DW

16	VCC	P0 P1 P2	P4 P5 P6 P7	
8	GND		INT	13
			A0	1
15	SDA		A1	2
14	SCL		A2	3
			P3	7

C1
100nF

R22
10k (5%)
R21
10k (5%)

LCD_I2C_SDA
LCD_I2C_SCL

LCD_LED_BACKLIGHT

5V 5V 5V 5V 5V

R20
10k (5%)
R25
10k (5%)
R24
10k (5%)
R23
10k (5%)
R1
10k (5%)

KEYPAD

KEYPAD_ROW_1	R1	1	2	3
KEYPAD_ROW_2	R2	4	5	6
KEYPAD_ROW_3	R3	7	8	9
KEYPAD_ROW_4	R4	*	0	#
		C1	C2	C3

KEYPAD_COL_1
KEYPAD_COL_2
KEYPAD_COL_3

C4_SHELLS_DETECTION

5V

R14
22k (5%)
YELLOW WIRE
CN5-2

R15
47k (5%)
BLACK WIRE
CN4-2

R16
100k (5%)
RED WIRE
CN4-1

ADC_C4_EXPLOSIVE_1
R17
1k (5%)
ADC_C4_EXPLOSIVE_2
R27
1k (5%)
ADC_C4_EXPLOSIVE_3
R28
1k (5%)

R2
10k (5%)
R12
10k (5%)
R13
10k (5%)

C4 SHELL C4 SHELL C4 SHELL

DESIGN BY:

Tiago Silva

github.com/TiagoPaulaSilva/CS-GO-s-C4

open hardware

PROJECT TITLE: CS GO's C4
SHEET TITLE:
SHEET: 1/1
DATE: 01/01/2023 18:16
REV.: 1.5