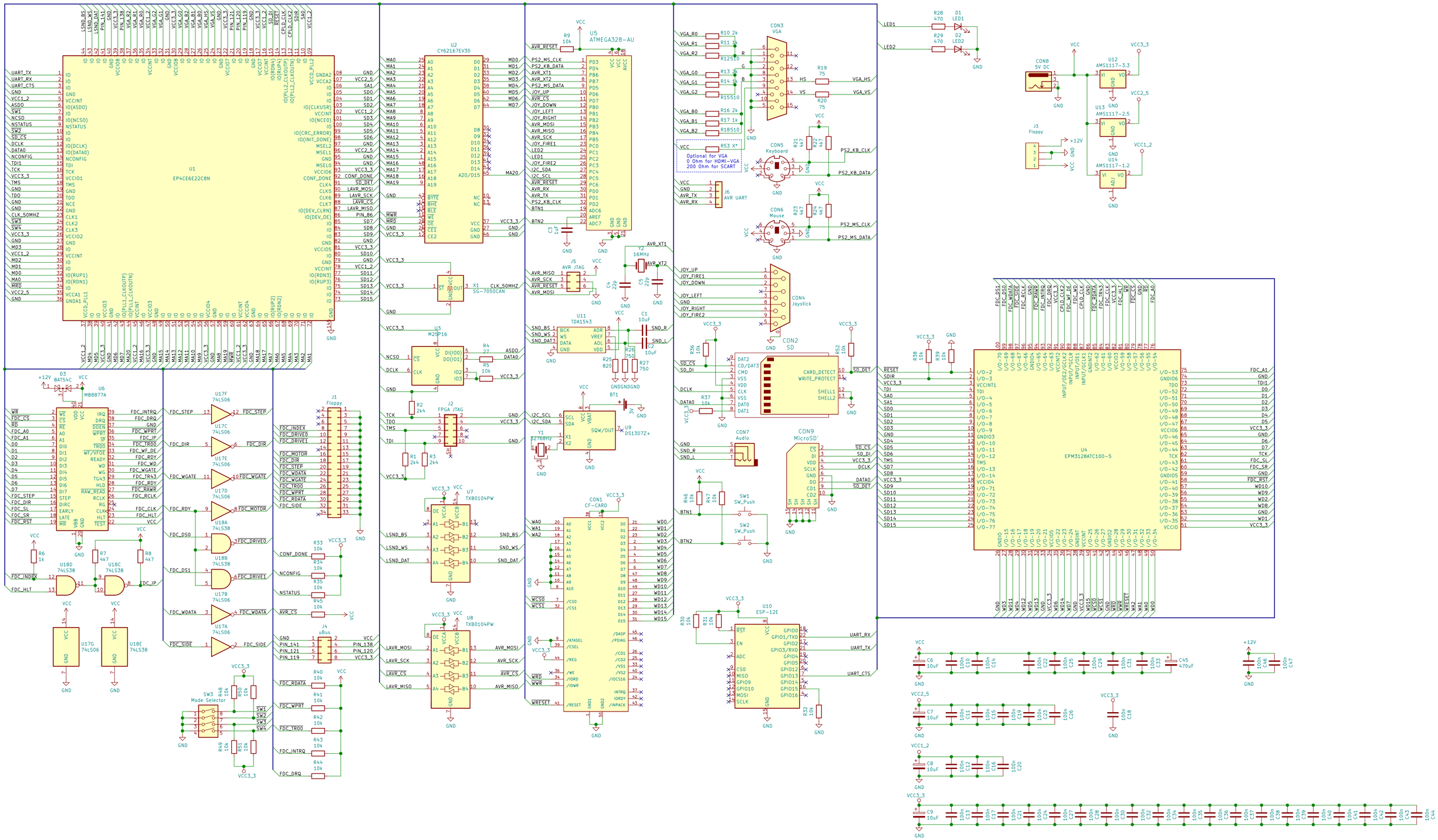
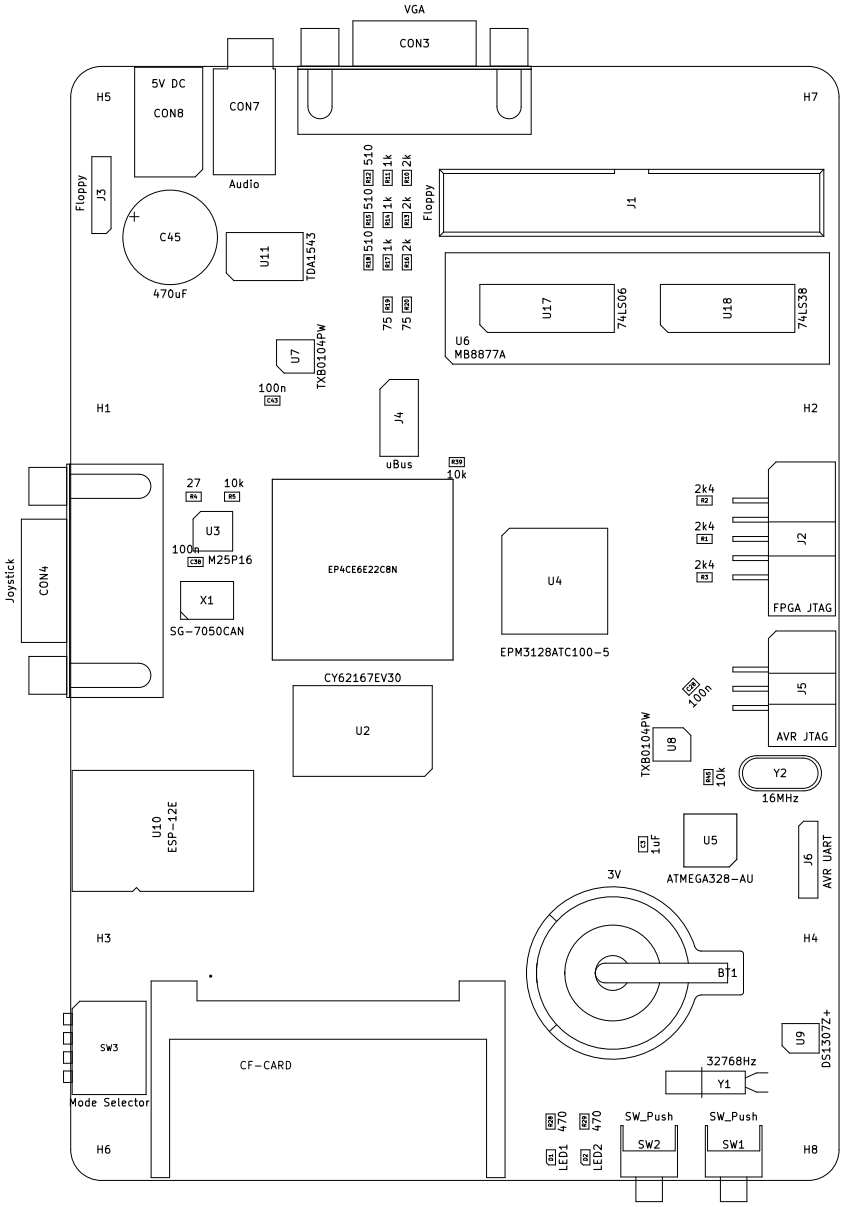
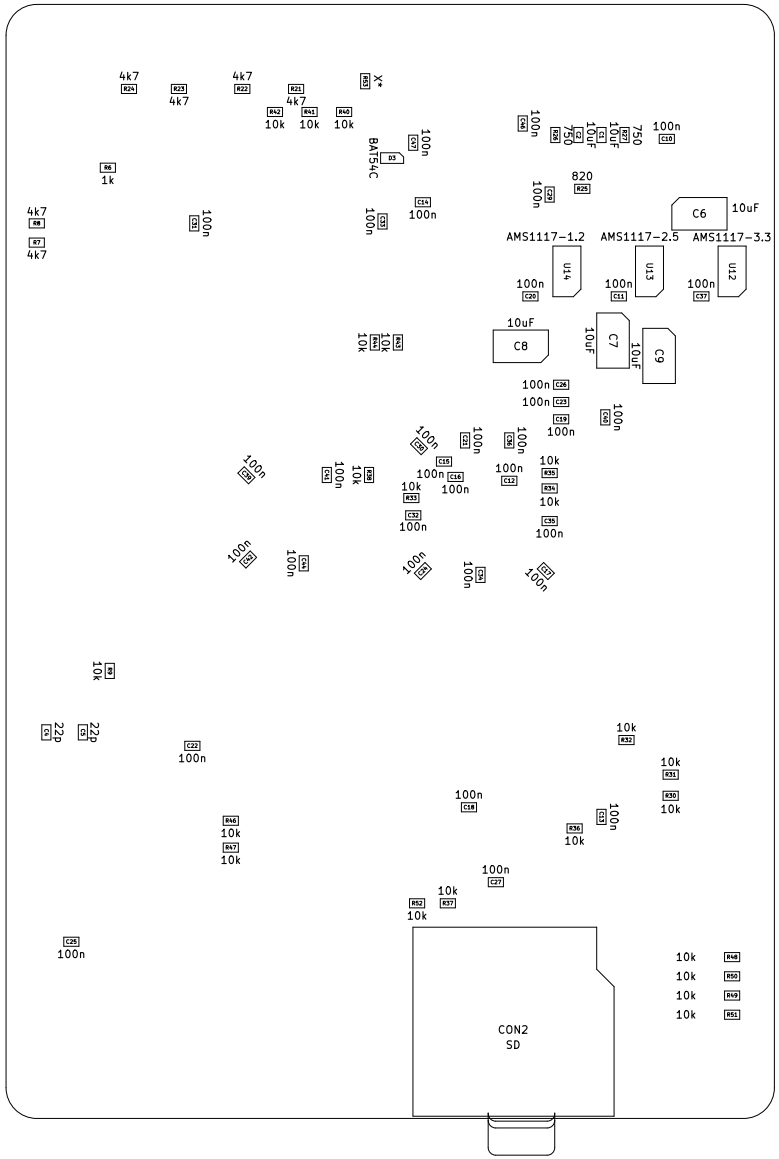

U1
EP4CE6E22C8N
U2
CY62167EV30
U5
ATMEGA328-AU
U4
EPM312BATC100-5
U10
ESP-12E
U11
TDA1543
U7
TXB0104PW
U8
TXB0104PW
U9
DS1307Z+
U6
MB8877A
CON1
CF-CARD
CON2
SD
CON3
VGA
CON4
Joystick
CON5
Keyboard
CON6
Mouse
CON7
Audio
CON8
5V DC
CON9
MicroSD
J1
Floppy
J2
FPGA JTAG
J3
Floppy
J4
uBus
J5
AVR JTAG
J6
AVR UART
SW3
Mode Selector
U12
AMS1117-3.3
U13
AMS1117-2.5
U14
AMS1117-1.2
Y1
32768Hz
Y2
16MHz
X1
SG-7050CAN
U17F
74LS06
U17C
74LS06
U17E
74LS06
U17D
74LS06
U17B
74LS06
U17A
74LS06
U17G
74LS06
U18A
74LS38
U18B
74LS38
U18C
74LS38
U18D
74LS38
U18E
74LS38
VCC
GND
VCC3_3
VCC2_5
VCC1_2
+12V
Optional for VGA
0 Ohm for HDMI-VGA
200 Ohm for SCART
H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole
H5 MountingHole
H6 MountingHole
H7 MountingHole
H8 MountingHole
Sheet: /
File: karabas-pro-revC1.sch
Title: Karabas Pro
Size: A2
Date: 2020-07-25
Rev: C1
KiCad E.D.A. kicad 5.1.6-c6e7f7d86ubuntu18.04.1
Id: 1/1


VGA
CON3
5V DC
CON8
CON7
Audio
H5
H7
Floppy
J3
C45
470uF
U11
TDA1543
510
1k
2k
Floppy
J1
75
U6
MB8877A
U17
74LS06
U18
74LS38
U7
TXB0104PW
100n
H1
H2
J4
uBus
10k
27
10k
U3
M25P16
100n
X1
SG-7050CAN
Joystick
CON4
EP4CE6E22C8N
CY62167EV30
U2
U4
EPM3128ATC100-5
2k4
J2
FPGA JTAG
J5
AVR JTAG
100n
TXB0104PW
U8
10k
Y2
16MHz
U10
ESP-12E
1uF
U5
ATMEGA328-AU
J6
AVR UART
3V
H3
H4
BT1
SW3
Mode Selector
CF-CARD
U9
DS1307Z+
3276Hz
Y1
470
LED1
LED2
SW_Push
SW2
SW1
H6
H8


4k7
R24
4k7
R23
4k7
R22
4k7
R21
10k
R42
10k
R41
10k
R40
X+
R39
BAT54C
D3
100n
C37
100n
C36
10uF
C1
750
R29
750
R28
100n
C10
820
R25
100n
C29
4k7
R8
4k7
R7
1k
R6
100n
C31
100n
C33
100n
C14
C6
10uF
AMS1117-1.2
AMS1117-2.5
AMS1117-3.3
U14
U13
U12
100n
C20
100n
C11
100n
C27
10uF
C8
10uF
C7
10uF
C9
10k
R43
10k
R44
100n
C26
100n
C23
100n
C19
100n
C30
100n
C38
100n
C21
100n
C28
100n
C24
100n
C15
100n
C16
100n
C12
10k
R35
10k
R34
10k
R33
100n
C32
100n
C35
100n
C39
100n
C40
100n
C41
100n
C34
100n
C42
100n
C43
10k
R9
22p
C4
22p
C3
C22
100n
10k
R32
10k
R31
10k
R30
100n
C18
100n
C13
10k
R36
10k
R46
10k
R47
100n
C17
10k
R38
10k
R37
100n
C25
CON2
SD
10k
R48
10k
R50
10k
R49
10k
R51

Ref	Q-ty	Value	Footprint
BT1,	1	3V	CR2032 Battery holder
C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C46, C47,	37	100n	C0805
C1, C2	2	10uF	C0805
C3,	1	1uF	C0805
C4, C5,	2	22p	C0805
C6, C7, C8, C9,	4	10uF	Tantalum D
C45,	1	470uF	CP_D12.5mm_P7.50mm
CON1,	1	CF-CARD	TE_1734451-1
CON2,	1	SD	SD_TE_2041021
CON3,	1	VGA	DSUB-15-HD_Female
CON4,	1	Joystick	DSUB-9_Male
CON5,	1	Keyboard	MDIN06SS
CON6,	1	Mouse	MDIN06SS
CON7,	1	Audio	Jack_3.5mm_CUI_SJ1-3535NG
CON8,	1	5V DC	BarrelJack_Wuerth_6941xx301002
CON9,	1	Micro-SD	Molex MicroSD (mirrored)
D1,	1	LED1	L0805
D2,	1	LED2	L0805
D3	1	BAT54C	SOT-23
J1,	1	Floppy	IDC-Header_2x17
J2,	1	FPGA JTAG	IDC-Header_2x05, angled
J3,	1	Floppy 5V	PinHeader_1x04
J4,	1	uBus	PinHeader_2x04
J5,	1	AVR JTAG	IDC-Header_2x03, angled
J6,	1	AVR UART	PinHeader_1x04
R1, R2, R3,	3	2k4	R0805
R4,	1	27	R0805
R5, R9, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52,	25	10k	R0805
R6, R11, R14, R17,	4	1k	R0805
R7, R8, R21, R22, R23, R24,	6	4k7	R0805
R10, R13, R16,	3	1k8 (2k)	R0805
R12, R15, R18, R28, R29,	5	'470 (510)	R0805
R19, R20,	2	75	R0805
R25,	1	820	R0805
R26, R27,	2	750	R0805
SW1, SW2,	2	SW_Push	SPST_Angled_PTS645Vx58-2LFS
SW3	1	SW_DIP_x04	SPSTx04_Piano_CTS_Series
U1,	1	EP4CE6E22C8N	QFP-144
U2,	1	CY62167EV30 (ELL)	TSOP-I-48_18.4x12mm_P0.5mm
U3,	1	W25Q16 | M25P16	SOIC-8_5.23x5.23mm_P1.27mm
U4,	1	EPM3128ATC100	LQFP-100_14x14mm_P0.5mm
U5,	1	ATMEGA328-AU	TQFP-32_7x7mm_P0.8mm
U6,	1	MB8877A	DIP-40_W15.24mm
U7, U8,	2	TXB0104PW	TSSOP-14_4.4x5mm_P0.65mm

U9,	1	DS1307Z+	SOIC-8_3.9x4.9mm_P1.27mm
U10,	1	ESP-12E	ESP-12E
U11,	1	TDA1543	DIP-8_W7.62mm
U12,	1	AMS1117-3.3	SOT-223-3
U13,	1	AMS1117-2.5	SOT-223-3
U14,	1	AMS1117-1.2	SOT-223-3
U17,	1	74LS06	DIP-14_W7.62mm
U18,	1	74LS38	DIP-14_W7.62mm
X1,	1	50MHz	SG8002CA-4Pin_7.0x5.0mm
Y1,	1	32768Hz	AT310_D3.0mm_L10.0mm
Y2,	1	16MHz	HC49-S