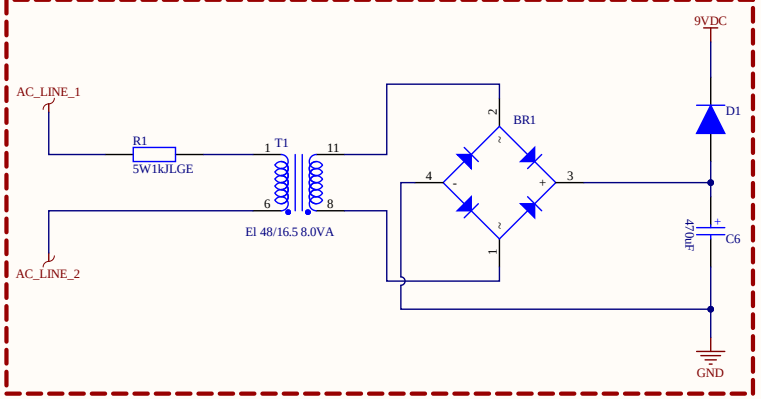
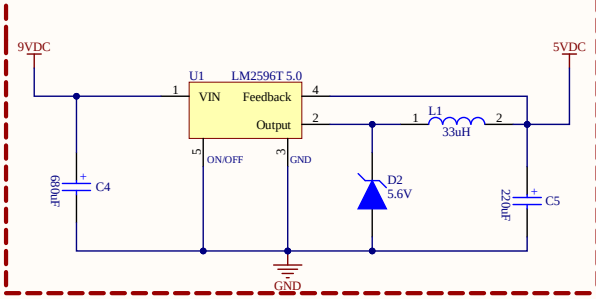
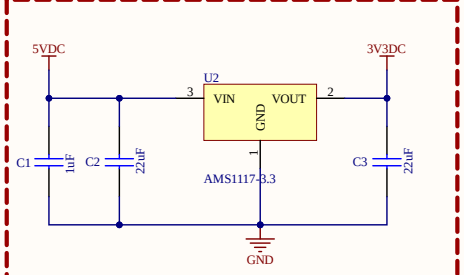
230VAC-6VAC TRANSFORMER & 9V DC CONVERTER



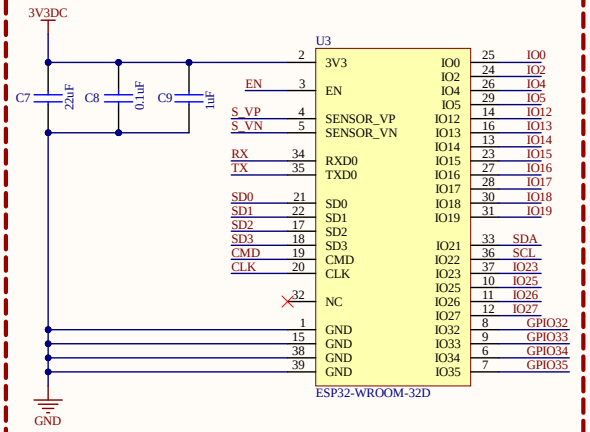
9VDC-5VDC REGULATED CONVERTER



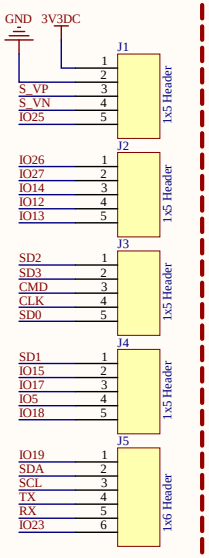
5VDC-3.3VDC REGULATED CONVERTER



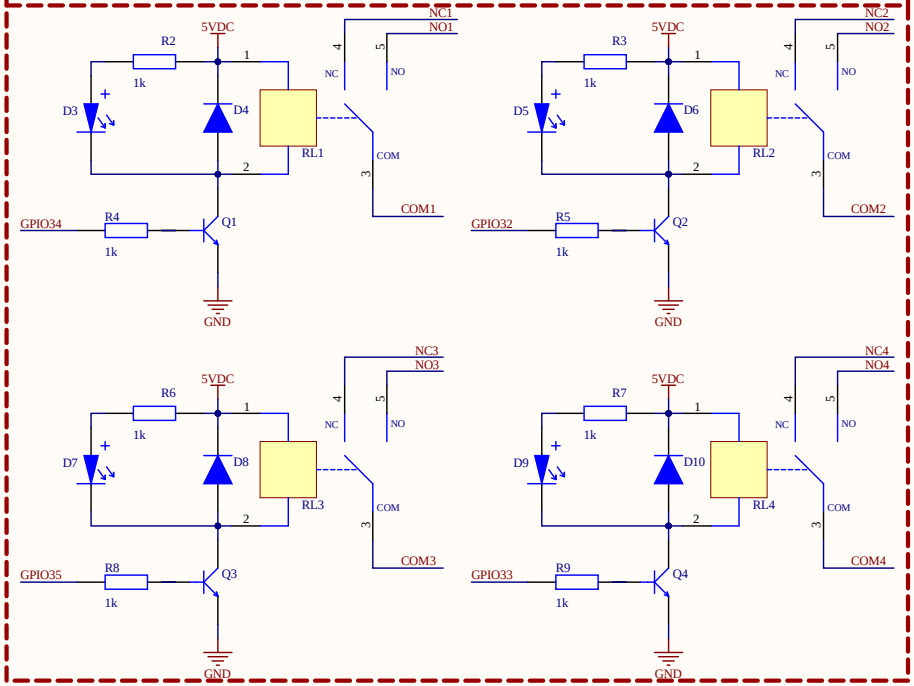
MICROCONTROLLER



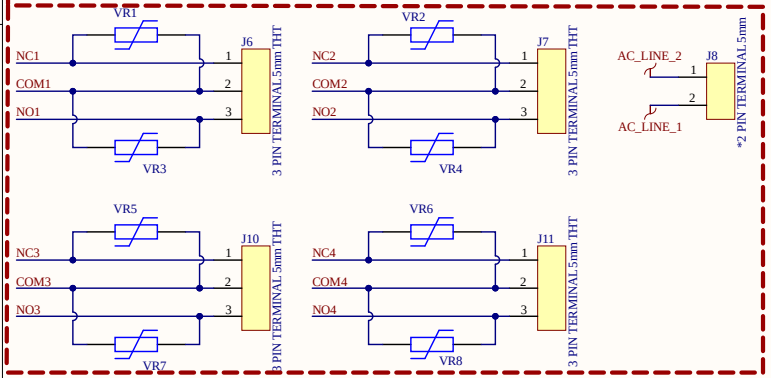
I/O PINS



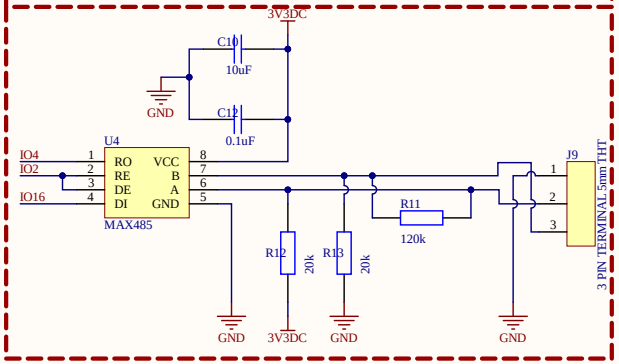
RELAYS



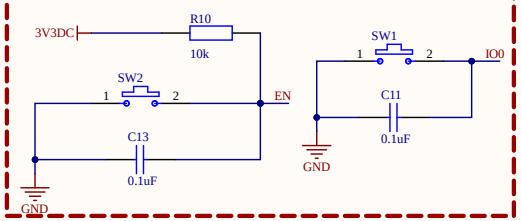
CONNECTORS



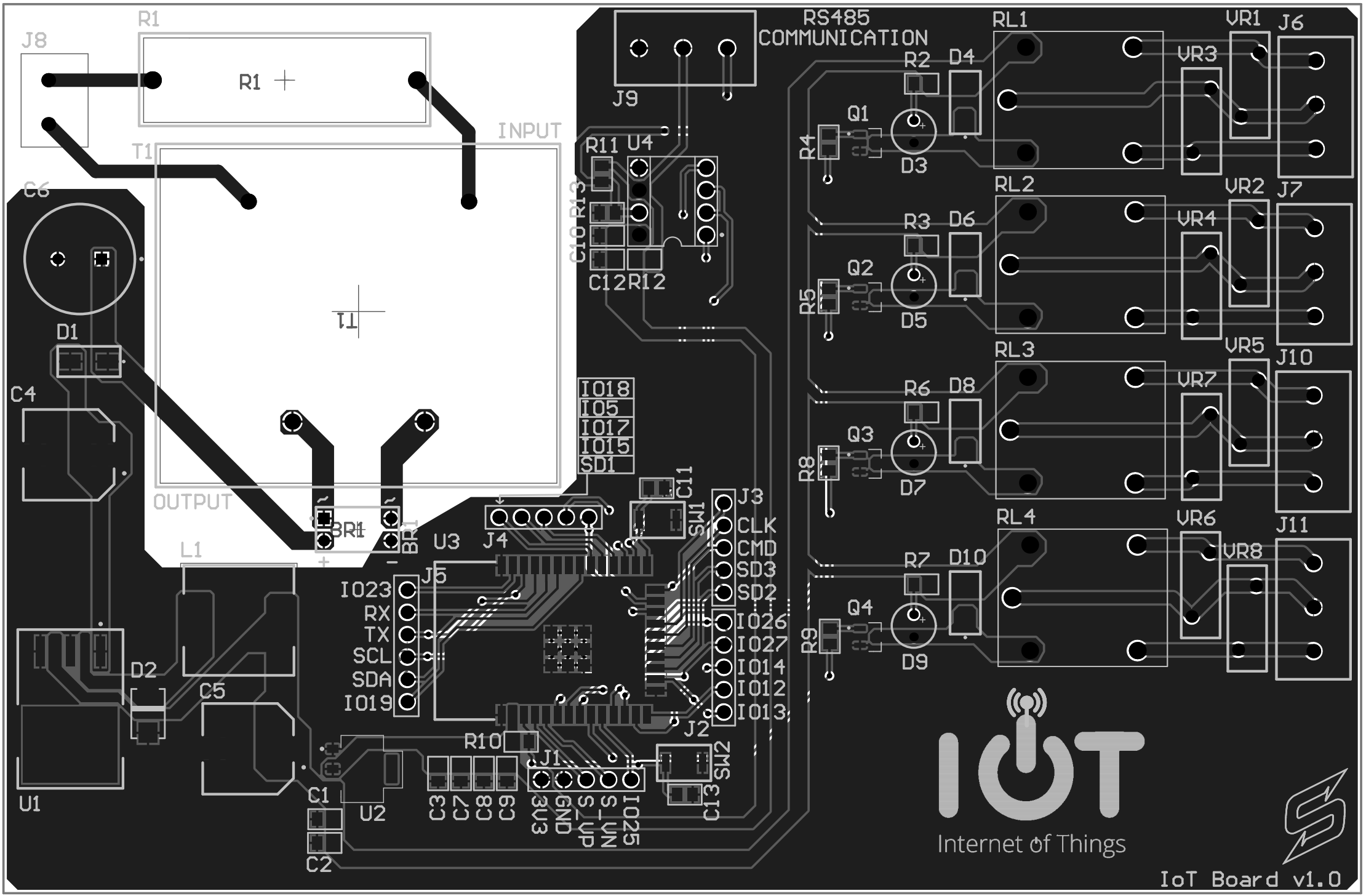
RS485 COMMUNICATION



ESP32 RESET & BOOT SWITCH



Açıklama: IoT BOARD v1.0		**Sayfa Boyutu:**	A3
Tasarım:	***SELCUK ELECTRONICS***		
Mühendis:	İ. Selçuk ÇINAR	**Tarih:**	1.01.2023
Dosya Adı:	Schematic.SchDoc	**Sayfa No:**	1


R1
J8
R1
INPUT
T1
C6
D1
C4
OUTPUT
L1
D2
C5
U1
C1
C2
U2
BR1
U3
J4
J5
IO23
RX
TX
SCL
SDA
IO19
R10
J1
3V3
GND
VP
VN
IO25
C3
C7
C8
C9
C13
SW2
J2
IO18
IO5
IO17
IO15
SD1
C11
SW1
J3
CLK
CMD
SD3
SD2
IO26
IO27
IO14
IO12
IO13
J9
R11
U4
C10
R13
C12
R12
RS485
COMMUNICATION
R2
D4
Q1
R4
D3
RL1
VR1
VR3
J6
R3
D6
Q2
R5
D5
RL2
VR2
VR4
J7
R6
D8
Q3
R8
D7
RL3
VR5
VR7
J10
R7
D10
Q4
R9
D9
RL4
VR6
VR8
J11
IOT
Internet of Things
IoT Board v1.0

Bill of Materials

Bill of Materials for Project [IoT_Board.PrjPcb] (No PCB Document Selected)

Source Data From: IoT_Board.PrjPcb
Project: IoT_Board.PrjPcb
Variant: None

Creation Date: 1.01.2023 21:13
Print Date: 01-Jan-23 9:13:38 PM

Footprint	Comment	LibRef	Designator	Description	Quantity
MB10M	MB10M	MB10M	BR1	Bridge Diode AC-DC	1
CAP CER 1uF 0805	CAP CER 22uF 0805	CAP CER 1uF 0805	C1, C9	1uF 16V 10% x5R 805 SMD Capacitor	2
CAP CER 22uF 0805	CAP CER 22uF 0805	CAP CER 22uF 0805	C2, C3, C7	22uF 16V 10% x5R 805 SMD Capacitor	3
CAP ALU 680uF SMD RADIAL	CAP ALU 680uF SMD RADIAL	CAP ALU 680uF SMD RADIAL	C4	CAP ALU 680uF SMD	1
CAP ALU 220uF SMD RADIAL	CAP ALU 220uF SMD RADIAL	CAP ALU 220uF SMD RADIAL	C5	CAP ALU 220uF SMD	1
CAP ALU 470uF THT	NOBBY	CAP ALU 470uF THT	C6	CAP ALU 470uF Normal	1
CAP CER 0.1uF 0805	CAP CER 0.1uF 0805	CAP CER 0.1uF 0805	C8, C11, C12, C13	0.1uF 16V 10% x5R 805 SMD Capacitor	4
CAP CER 10uF 0805	CAP CER 22uF 0805	CAP CER 10uF 0805	C10	10uF 16V 10% x5R 805 SMD Capacitor	1
M7-KT 1N4007 SMD	M7-KT 1N4007 SMD	M7-KT 1N4007 SMD	D1, D4, D6, D8, D10	M7-KT - 1N4007 - SMD Diyot 1A 1000V	5
SMB	1SMB5919BT3G	1SMB5919BT3G	D2	Diode Zener Single 5.6V 5% 3W 2-Pin SMB T/R	1
LED RED THT	LED RED THT	LED RED THT	D3, D5, D7, D9	Throught LED	4
1x5 Header	1x5 Header	1x5 Header	J1, J2, J3, J4	1x5 Header	4
1x6 Header	1x6 Header	1x6 Header	J5	1x6 Header	1
3 PIN TERMINAL 5mm THT	3 PIN TERMINAL 5mm THT	3 PIN TERMINAL 5mm THT	J6, J7, J9, J10, J11	3 Position Wire to Board Terminal Block Horizontal with Board 0.197" (5.00mm) Through Hole	5
2 PIN TERMINAL 5mm THT	*2 PIN TERMINAL 5mm	2 PIN TERMINAL 5mm THT	J8	2 Position Wire to Board Terminal Block Horizontal with Board 0.197" (5.00mm) Through Hole	1
SRR1260-330M	SRR1260-330M	SRR1260-330M	L1	33 µH Shielded Drum Core, Wirewound Inductor 3 A 60mOhm Max Nonstandard	1
BC847 NPN SMD SOT-23	BC847 NPN SMD SOT-23	BC847 NPN SMD SOT-23	Q1, Q2, Q3, Q4	BC847 Transistör NPN SMD SOT-23100mA, 45V	4
5W1kJLGE	5W1kJLGE	5W1kJLGE	R1	Resistor 5 Watt Cermet Wirewound Flameproof 1KOhm 5% Axial Lead	1
RES 1K OHM 805	RES 1K OHM 805	RES 1K OHM 805	R2, R3, R4, R5, R6, R7, R8, R9	1K 805 1/8 SMD Direnç	8
RES 10K OHM 805	RES 10K OHM 805	RES 10K OHM 805	R10	10K 805 1/8 SMD Direnç	1
RES 120R OHM 805	RES 120R OHM 805	RES 120R OHM 805	R11	120Ohm 805 1/8 SMD Direnç	1
RES 20K OHM 805	RES 20K OHM 805	RES 20K OHM 805	R12, R13	20K 805 1/8 SMD Direnç	2
SRD-03VDC-SL-C	SRD-03VDC-SL-C	SRD-03VDC-SL-C	RL1, RL2, RL3, RL4	Relays General Purpose Non Latching 3VDC SPDT 10A (250VAC) Max 5PIN	4
SKRKAEE010	SKRKAEE010	SKRKAEE010	SW1, SW2	Switch Tactile N.O. SPST Round Button Gull Wing 0.05A 12VDC 1.57N SMD T/R	2
EI 48/16.5 8.0VA	EI 48/16.5 8.0VA	EI 48/16.5 8.0VA	T1	230VAC-6VAC Transformer 8VA	1
LM2596T 5.0	LM2596T 5.0	LM2596T 5.0	U1	SIMPLE SWITCHER® 4.5V to 40V, 3A Low Component Count Step-Down Regulator 5-TO-220	1
AMS1117-3.3	AMS1117-3.3	AMS1117-3.3	U2	Sot223/Pkg 1-Amp 3.3-Volt Low Drop Out Voltage Regulatator	1
ESP32-WROOM-32D	ESP32-WROOM-32D	ESP32-WROOM-32D	U3	SMD MODULE, ESP32-D0WDQ6, 32MBIT	1
MAX485	MAX485	MAX485	U4	1/1 Transceiver Half RS422, RS485 8-uMAX-EP|8-uSOP-EP	1
B72210S0151K101	B72210S0151K101	B72210S0151K101	VR1, VR2, VR3, VR4, VR5, VR6, VR7, VR8	240 V 2.5 kA Varistor 1 Circuit Through Hole Disc 10mm	8
					72

Approved	Notes	