



aselsan

MESLEKİ VE TEKNİK ANADOLU LİSESİ

“güven veren gelecek”

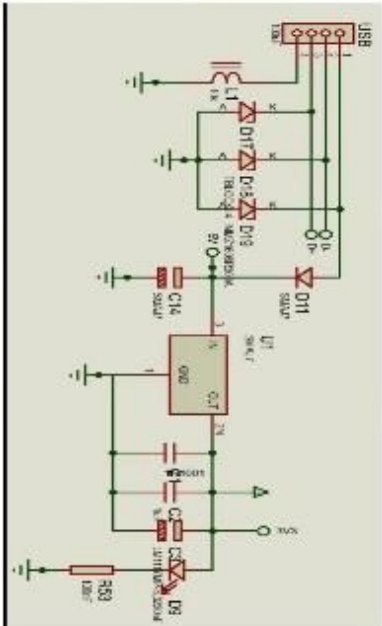
11/A-30

MERT FATİH
ÖZDEMİR

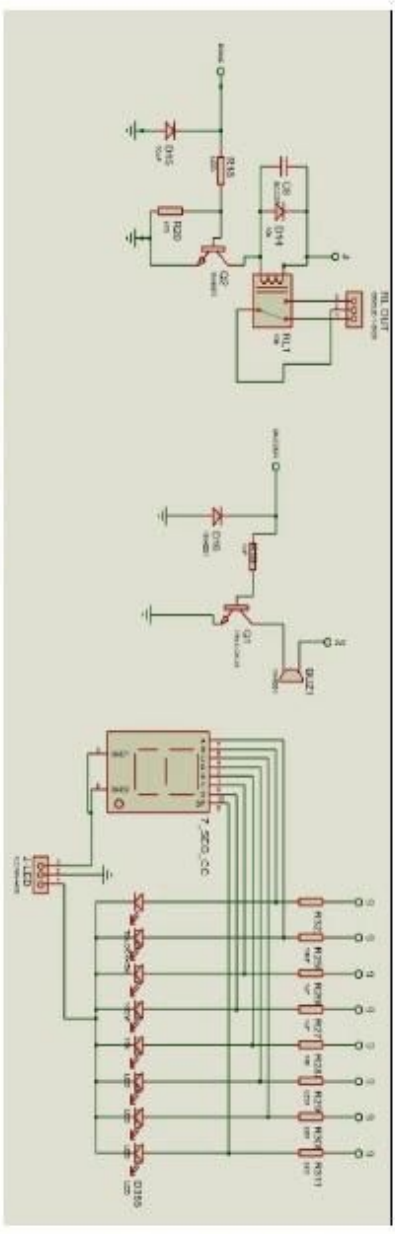
*Nuvoton M031FB0AE Geliştirme kartı tanıtım
dökümanıdır.*

Bu belge geliştirdiğimiz kartın özelliklerini temel düzeyde gösteren bir dokümandır.

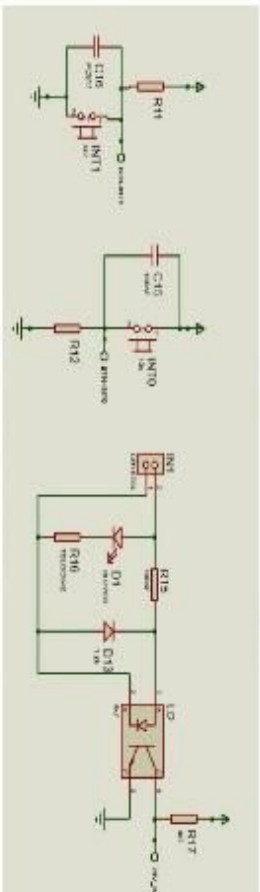
22.04.2023



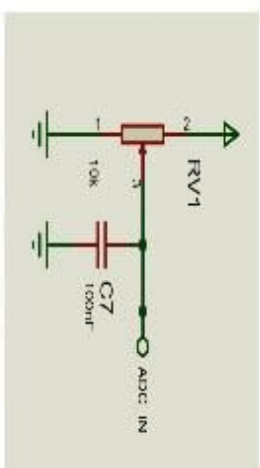
GÜÇ GİRİŞİ



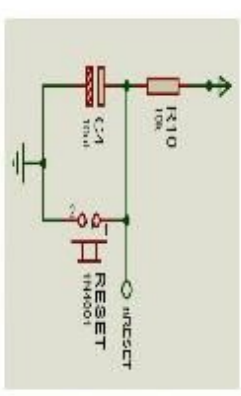
ÇIKIŞ BİRİMLERİ



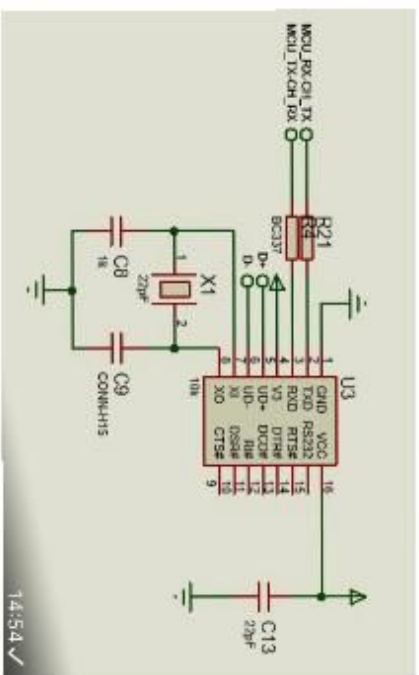
DİJİTAL GİRİŞ BİRİMLERİ



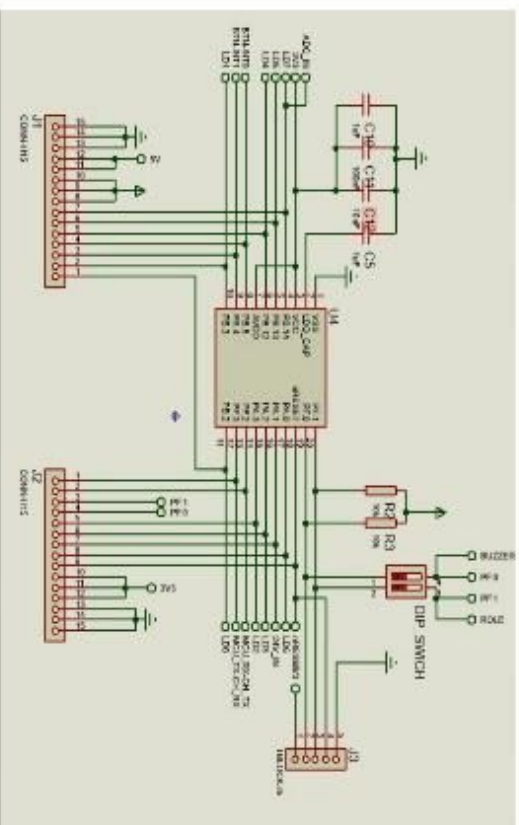
ANALOG TEST BİRİMİ



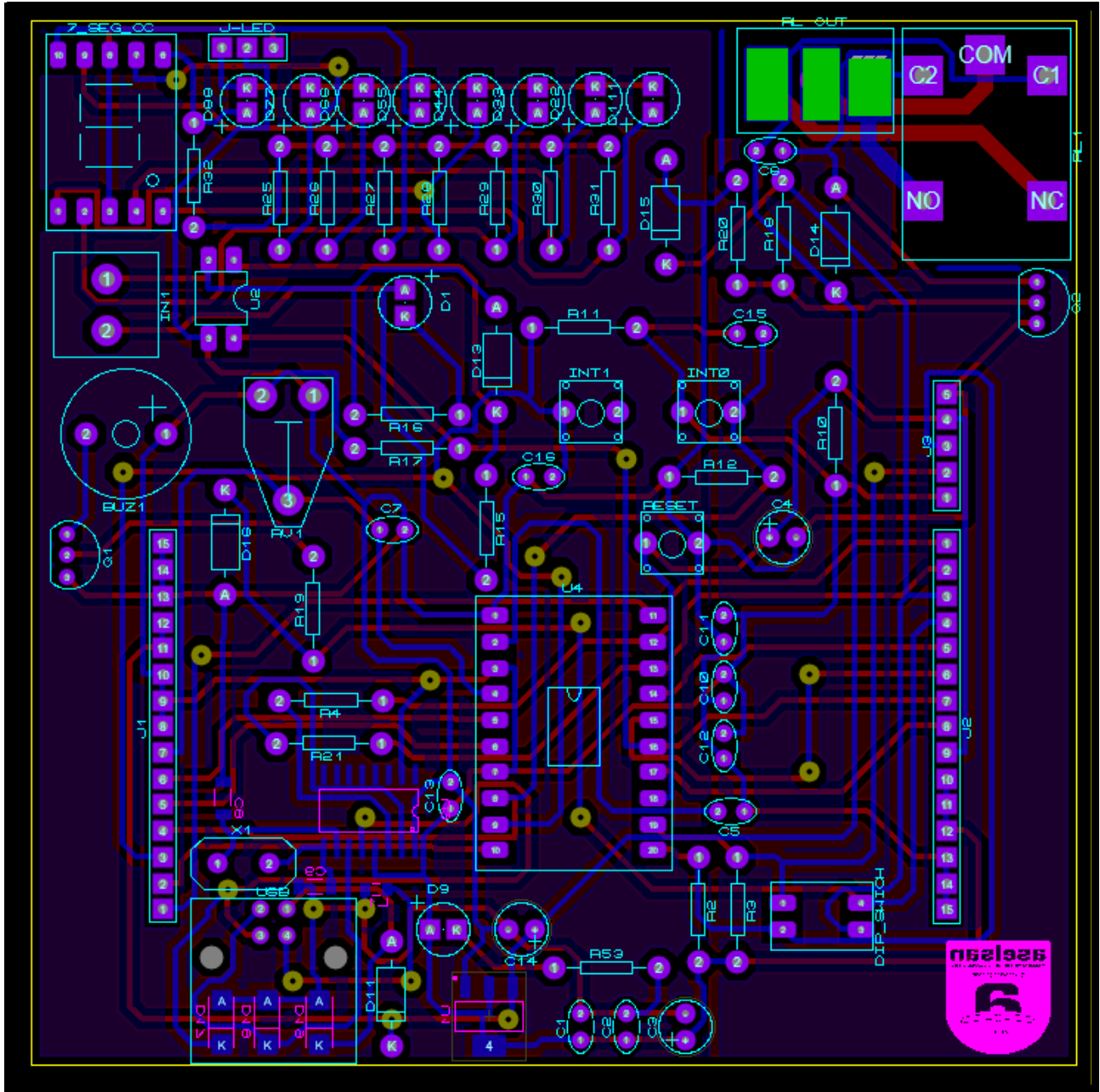
RESET DEVRESİ



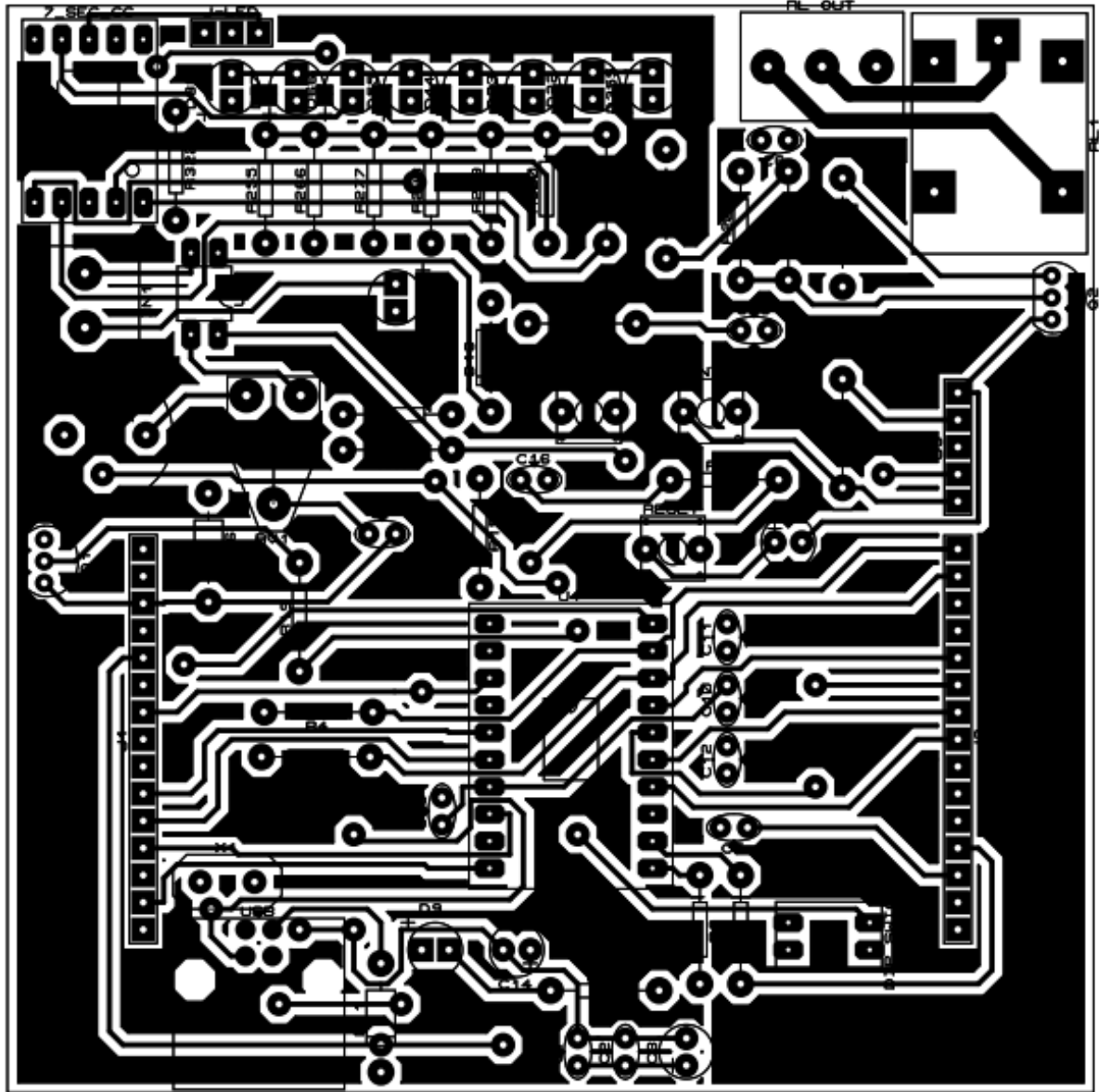
USB -> UART DÖNÜŞTÜRÜCÜ



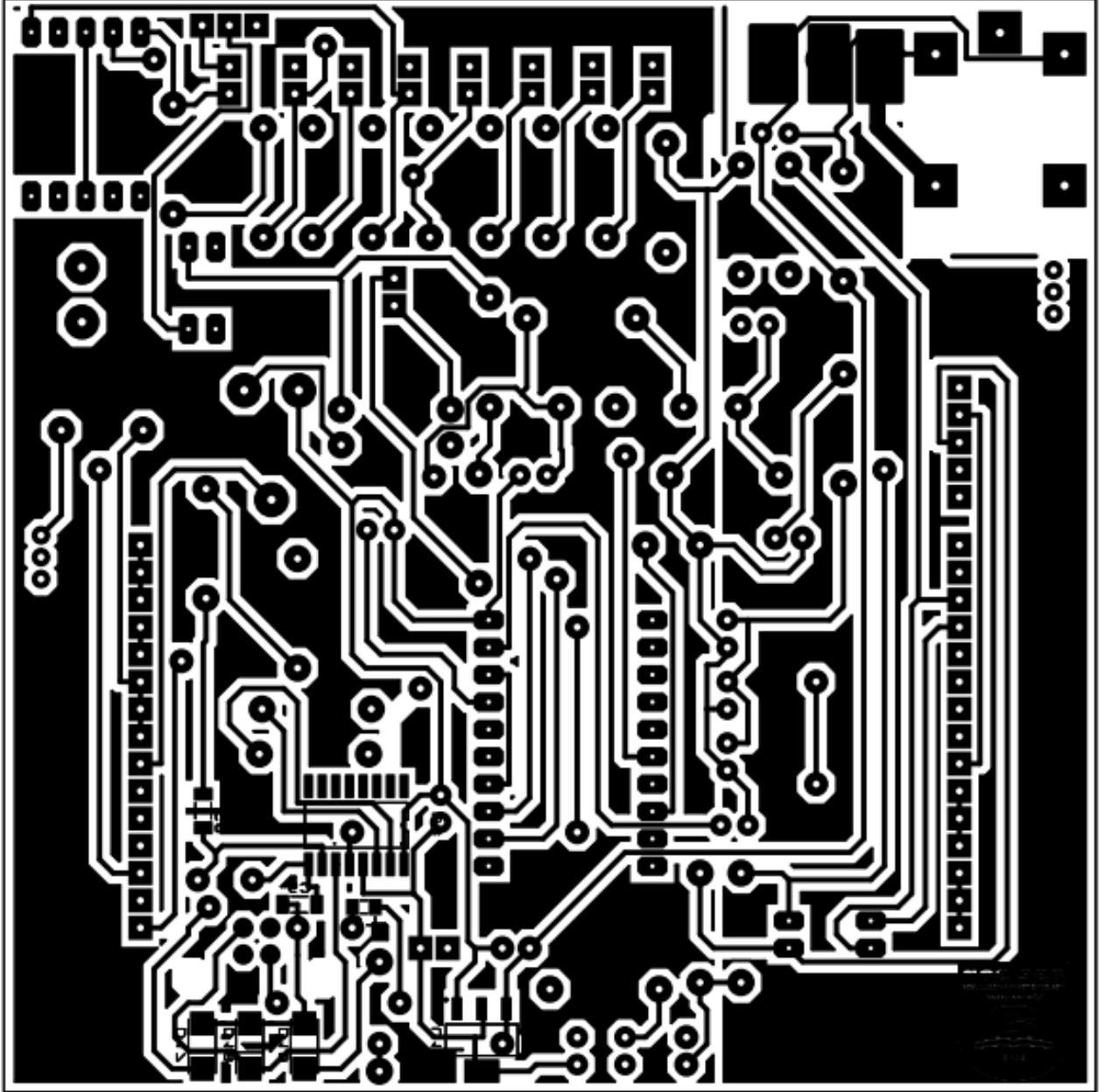
MCU BİRİMİ



GENEL BASKI DEVRE GÖRÜNÜŞÜ



ÜST KATMAN YERLEŞİM PLANI

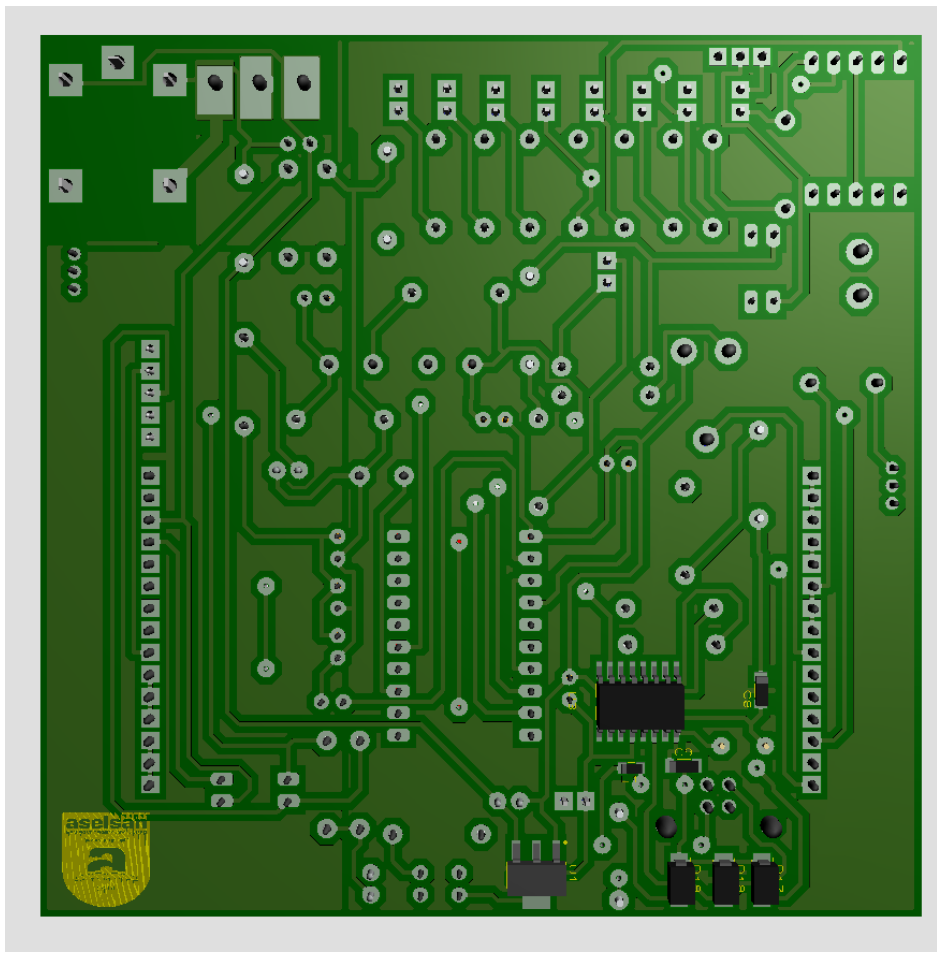


ALT KATMAN YERLEŞİM PLANI

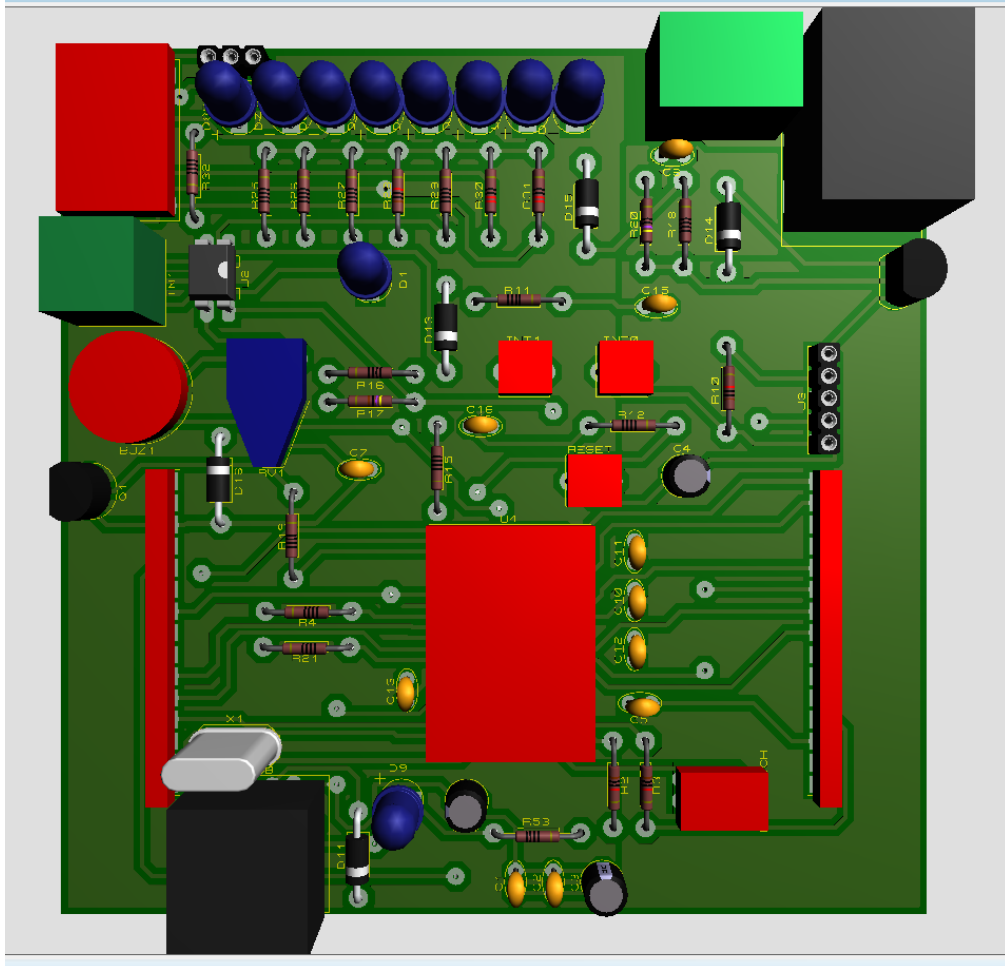
Bill Of Materials for MIKRO.11

Design Title	MIKRO.11
Author	
Document Number	
Revision	
Design Created	10 Mart 2023 Cuma
Design Last Modified	23 Nisan 2023 Pazar
Total Parts In Design	79

Category	Quantity	References	Value	PCB Package
Capacitors	1	C1	220nF	CAP10
		C2,C6-C7,C11,C13,C15-		
Capacitors	7	C16	100nF	CAP10
Capacitors	3	C3-C4,C14	10uF	ELEC-RAD13
Capacitors	1	C5	1uf	cap10
Capacitors	2	C8-C9	22pF	1206
Capacitors	1	C10	1uF	CAP10
Capacitors	1	C12	10nF	CAP10
Resistors	1	R1	470	RES40
Resistors	8	R2-R9	220	RES40
Resistors	4	R10-R12,R20	10k	RES40
Resistors	2	R13-R14	100k	RES40
Resistors	2	R15,R17	4k7	RES40
Resistors	1	R16	1.2K	RES40
Resistors	4	R18-R19,R21-R22	1k	RES40
Integrated Circuits	1	U1	LM1117MP-3,3	SOT230P700X180-4
Integrated Circuits	1	U2	PC817	DIL04
Integrated Circuits	1	U3	M031FB0AE	TSSOP-DIL20
Integrated Circuits	1	U4	CH340G	SOP16
Transistors	2	Q1-Q2	BC337	TO92
Diodes	10	D1-D9,D12	LED	LED
Diodes	1	D10	7_SEG_CC_14MM	7_SEG_14MM_CC_DISPLAY_FOOTPRNT
Diodes	3	D11,D15-D16	1N5817	DO41
Diodes	2	D13-D14	1N4001	DO41
Diodes	3	D17-D19	SMAJ7.0A	DO214
Miscellaneous	1	BUZ1	BUZZER	HPA13A
Miscellaneous	1	IN1	TBLOCK-I2	TBLOCK-I2
			6x6 2 pin tach	
Miscellaneous	3	INT0-INT1,RESET	buton	BUTON_2
Miscellaneous	2	J3-J4	CONN-H15	CONN-SIL15
Miscellaneous	1	J-LED	CONN-SIL3	CONN-SIL3
Miscellaneous	1	L1	30R FERRITE BEAD	0805
Miscellaneous	1	PRG	CONN-SIL5	CONN-SIL5
Miscellaneous	1	RL1	G5CLE-14-DC5	RLY-OMRON-C4
Miscellaneous	1	RL OUT	TBLOCK-I3	TBLOCK-I3
Miscellaneous	1	RV1	10K	PRE-HMIN
Miscellaneous	1	S1	2_PIN_DIP_SWITCH	2_PIN_DIP_SWITCH
Miscellaneous	1	USB	CONN-H4	USB-B
Miscellaneous	1	X1	12MHz	XTAL18



ALT KATMAN 3D GÖRÜNTÜ



ÜST KATMAN 3D GÖRÜNTÜ