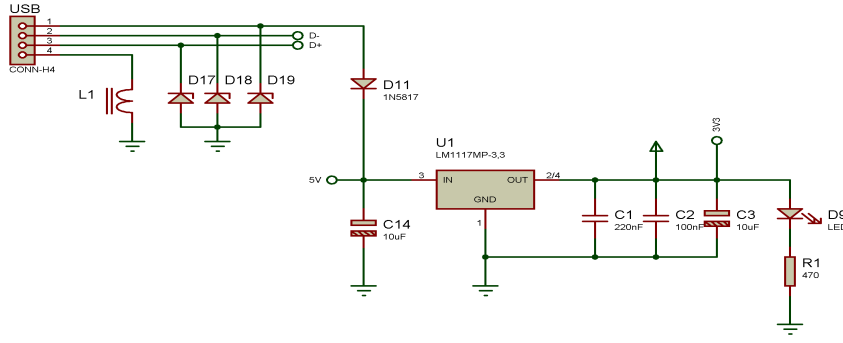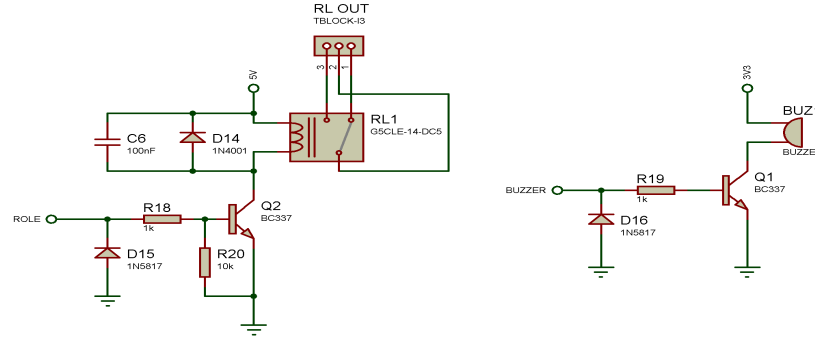# 11/B 800
Aslı Nur KOÇAŞ

Nuvoton M031FB0AE Geliştirme Kartı tanıtım dokümanıdır.

Bu belge, geliştirdiğimiz kartın özelliklerini temel düzeyde gösteren bir dokümandır.
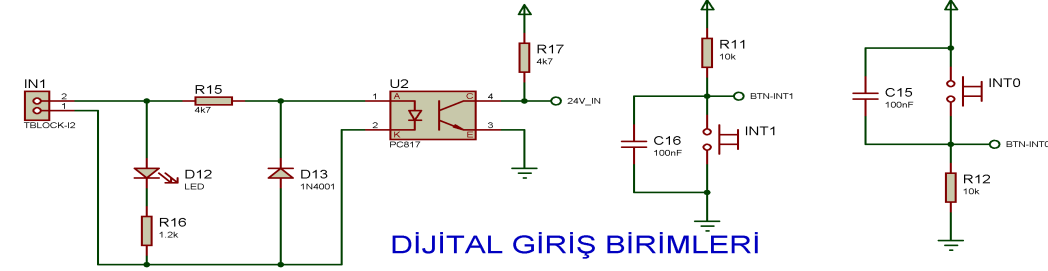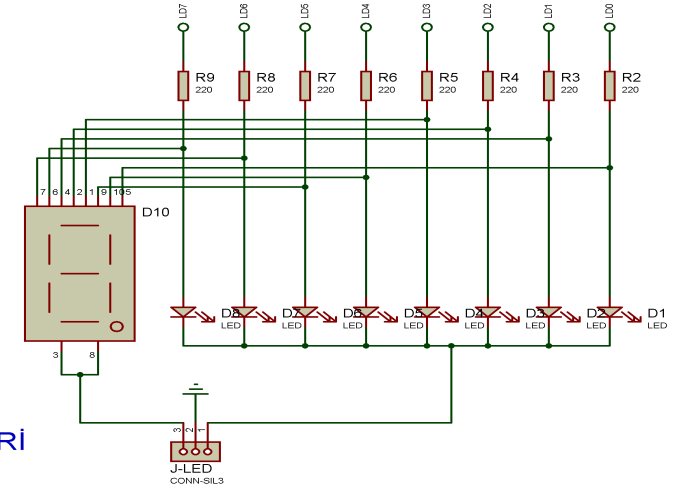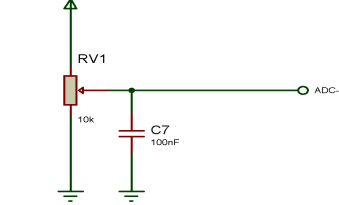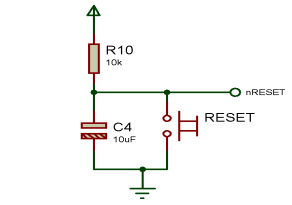
25.04.2023

GÜÇ GİRİŞİ

USB
CONN-H4

L1
D17 D18 D19
D11
1N5817

U1
LM1117MP-3,3
IN   OUT
GND
5V
C14
10uF
C1
220nF
C2
100nF
C3
10uF
3V3
D9
LED
R1
470

ÇIKIŞ BİRİMLERİ

RL OUT
TBLOCK-I3

5V
C6
100nF
D14
1N4001
RL1
G5CLE-14-DC5
Q2
BC337
ROLE
R18
1k
D15
1N5817
R20
10k

3V3
BUZ1
BUZZER
BUZZER
R19
1k
Q1
BC337
D16
1N5817

LD7 LD6 LD5 LD4 LD3 LD2 LD1 LD0
R9 R8 R7 R6 R5 R4 R3 R2
220 220 220 220 220 220 220 220

D10
D8 D7 D6 D5 D4 D3 D2 D1
LED LED LED LED LED LED LED LED

J-LED
CONN-SIL3

DİJİTAL GİRİŞ BİRİMLERİ

IN1
TBLOCK-I2
R15
4k7
U2
PC817
A C
K E
24V_IN
D12
LED
D13
1N4001
R16
1.2k

R17
4k7

R11
10k
BTN-INT1
C16
100nF
INT1

C15
100nF
INT0
BTN-INT0
R12
10k

ANALOG TEST BİRİMLERİ

RV1
10k
C7
100nF
ADC-IN

RESET DEVRESİ

R10
10k
nRESET
C4
10uF
RESET
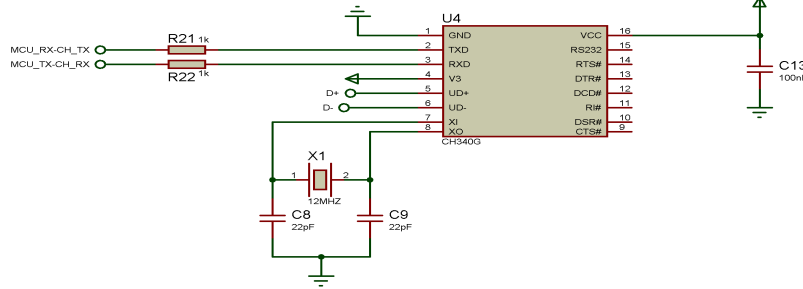
USB -> UART DÖNÜŞTÜRÜCÜ

MCU_RX-CH_TX
MCU_TX-CH_RX
R21 1k
R22 1k

U4
CH340G
GND   VCC
TXD   RS232
RXD   RTS#
V3   DTR#
UD+   DCD#
UD-   RI#
XI   DSR#
XO   CTS#

C13
100nF

X1
12MHZ
C8
22pF
C9
22pF

MCU BİRİMİ

BUZZER
PF0
PF1
ROLE

S1
2_PIN_DIP_SWITCH

C10
1uF
C11
100nF
C12
10nF
C5
1uF

R14
100k
R13
100k

U3
M031FB0AE
VSS   PF.1
LDO_CAP   PF.0
VCC   nRESET
PB.14   PA.0
PB.15   PA.1
PB.12   PA.2
AVDD   PA.3
PB.5   PF.3
PB.4   PB.2
PB.3

ADC_IN
3V3
LD7
LD5
LD4
BTN-INT0
BTN-INT1
LD1

nRESET
LD6
24V_IN
LD3
LD2
MCU_RX-CH_TX
MCU_TX-CH_RX
LD0

PRG
CONN-SIL5

3V3

J4
CONN-H15

J3
CONN-H15
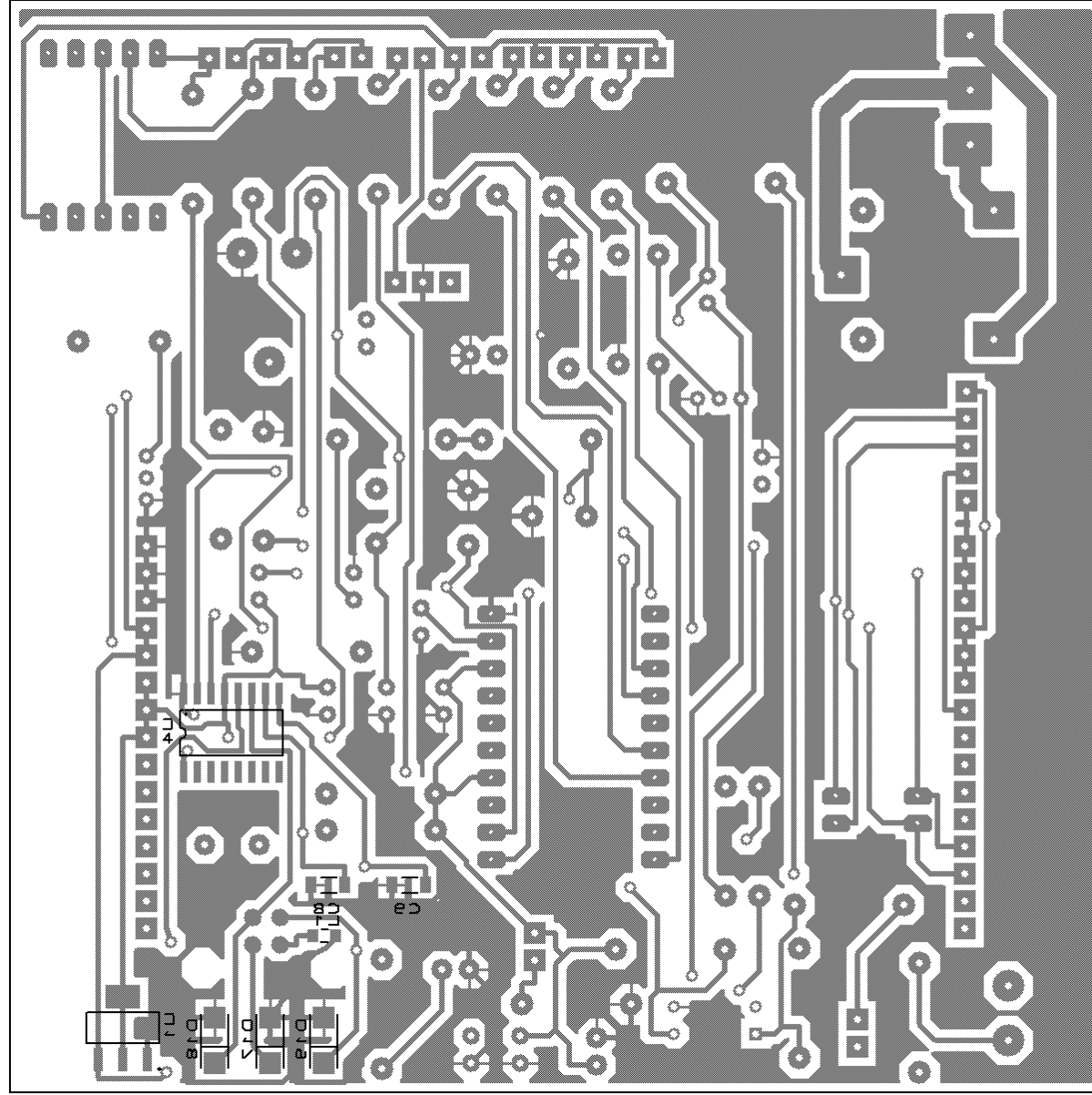
GENEL BASKI DEVRE GÖRÜNÜŞÜ
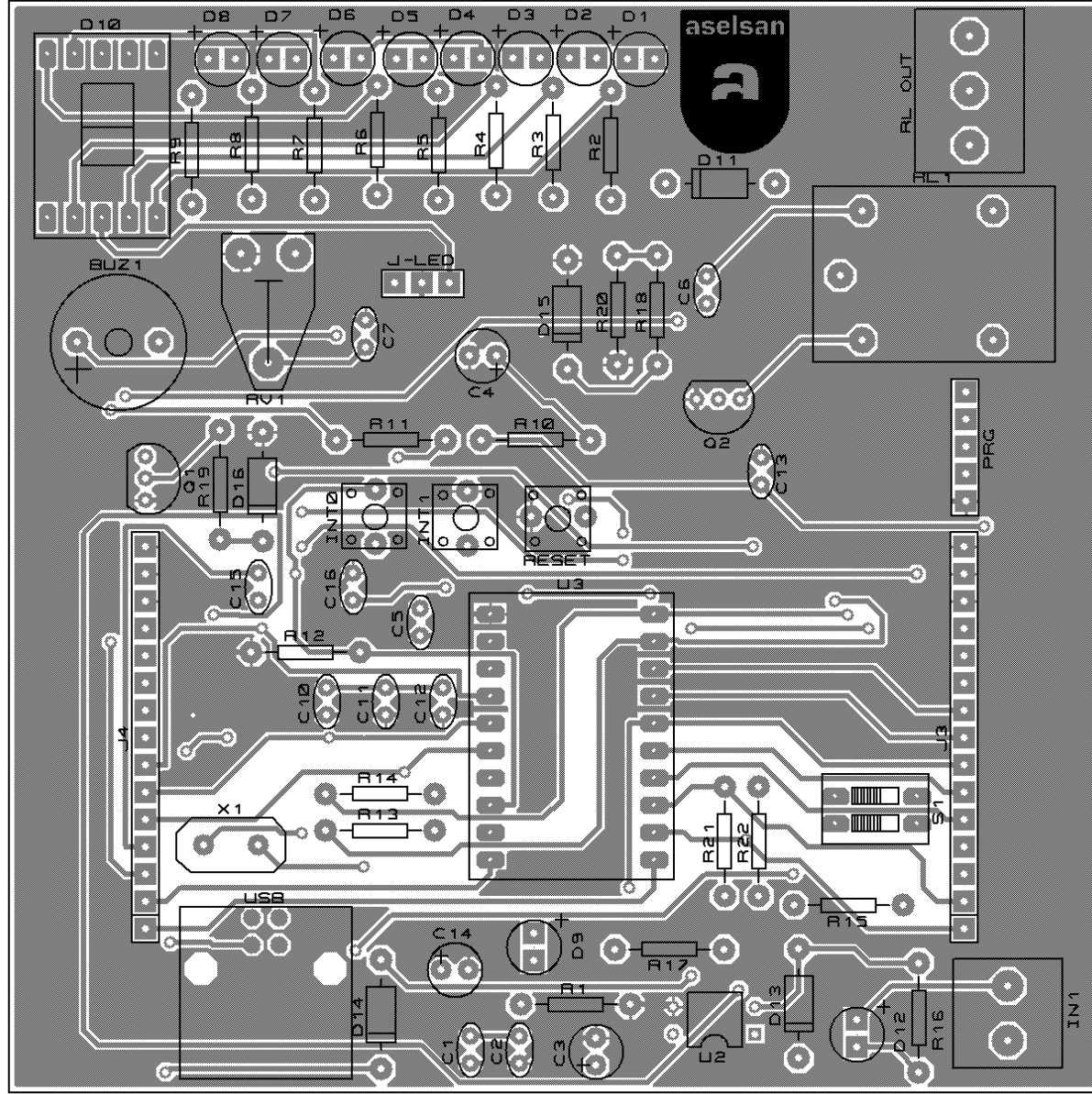
ÜST KATMAN YERLEŞİM PLANI

ALT KATMAN YERLEŞİM PLANI

Bill Of Materials for aslinur_kocas_11-b_800

Design Title   aslinur_kocas_11-b_800
Author
Document Number
Revision
Design Created   25 Nisan 2023 Salı
Design Last Modified   25 Nisan 2023 Salı
Total Parts In Design   79

0 Modules

Quantity	References	Value	Stock Code	Unit Cost
Sub-totals:				₺0,00

16 Capacitors

Quantity	References	Value	Stock Code	Unit Cost
1	C1	220nF		
7	C2, C6-C7, C11, C13, C15-C16	100nF		
3	C3-C4, C14	10uF		
2	C5, C10	1uF		
2	C8-C9	22pF		
1	C12	10nF		
Sub-totals:				₺0,00

22 Resistors

Quantity	References	Value	Stock Code	Unit Cost
1	R1	470		
8	R2-R9	220		
4	R10-R12, R20	10k		
2	R13-R14	100k		
2	R15, R17	4k7		
1	R16	1.2k		
4	R18-R19, R21-R22	1k		
Sub-totals:				₺0,00

4 Integrated Circuits

Quantity	References	Value	Stock Code	Unit Cost
1	U1	LM1117MP-3,3		
1	U2	PC817		
1	U3	M031FB0AE		
1	U4	CH340G		
Sub-totals:				₺0,00

2 Transistors

Quantity	References	Value	Stock Code	Unit Cost
2	Q1-Q2	BC337		
Sub-totals:				₺0,00

19 Diodes

Quantity	References	Value	Stock Code	Unit Cost
10	D1-D9, D12	LED		
4	D10, D17-D19			
3	D11, D15-D16	1N5817		
2	D13-D14	1N4001		
Sub-totals:				₺0,00

16 Miscellaneous

Quantity	References	Value	Stock Code	Unit Cost
1	BUZ1	BUZZER		
1	IN1	TBLOCK-I2		
4	INT0-INT1, L1, RESET			
2	J3-J4	CONN-H15		
1	J-LED	CONN-SIL3		
1	PRG	CONN-SIL5		
1	RL1	G5CLE-14-DC5		
1	RL OUT	TBLOCK-I3		
1	RV1	10k		
1	S1	2_PIN_DIP_SWITCH		
1	USB1	CONN-H4		
1	X1	12MHZ		
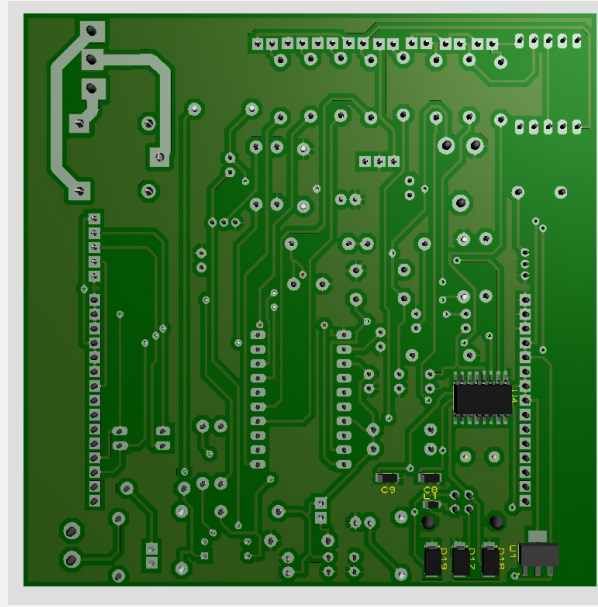
ALT KATMAN 3D GÖRÜNTÜ

ÜST KATMAN 3D GÖRÜNTÜ