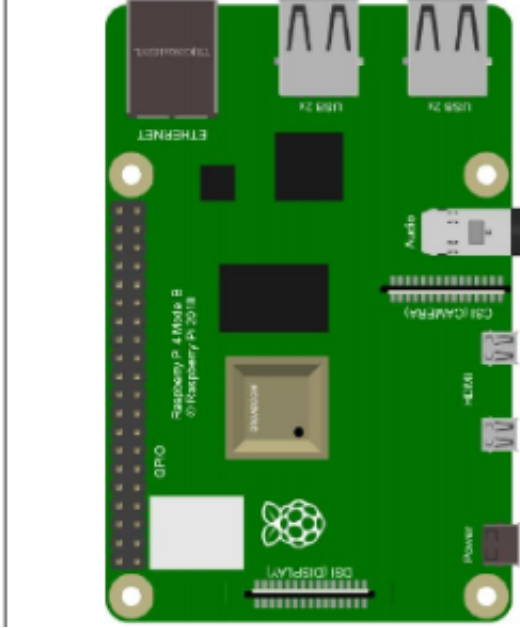
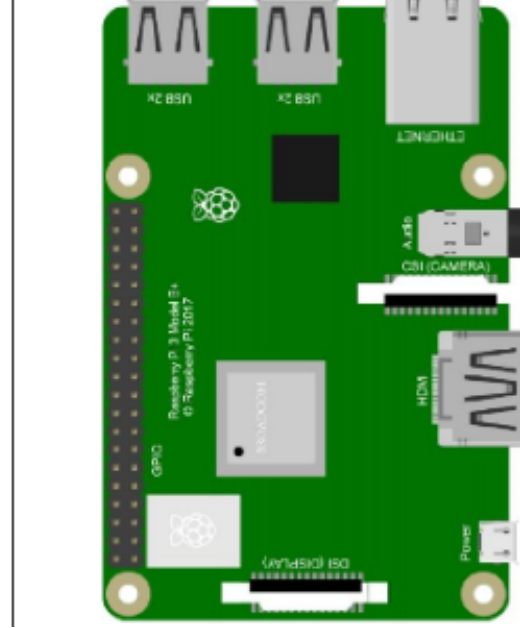


Raspberry Pi Dersleri

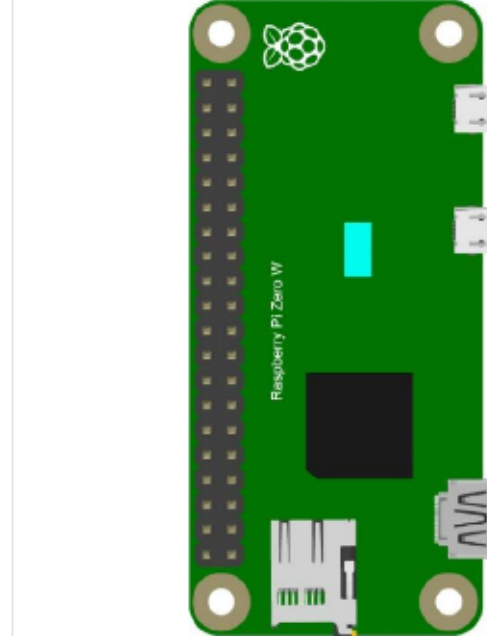
Raspberry Pi 4 Model B / CAD Cizimi:



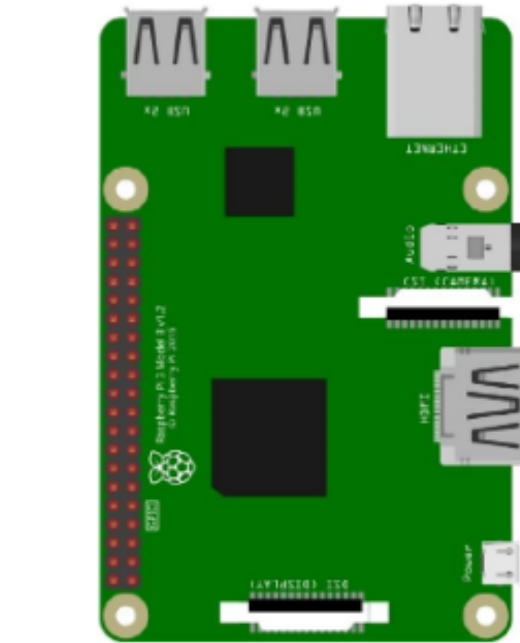
Raspberry Pi 3 Model B+ / CAD Cizimi:



Raspberry Pi Zero W / CAD Cizimi:



Raspberry Pi 3 Model B / CAD Cizimi:



Raspberry Pi Gereken Sarj Adaptörleri

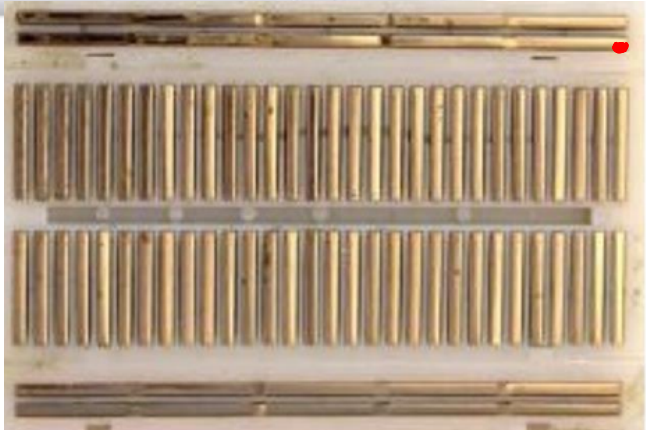
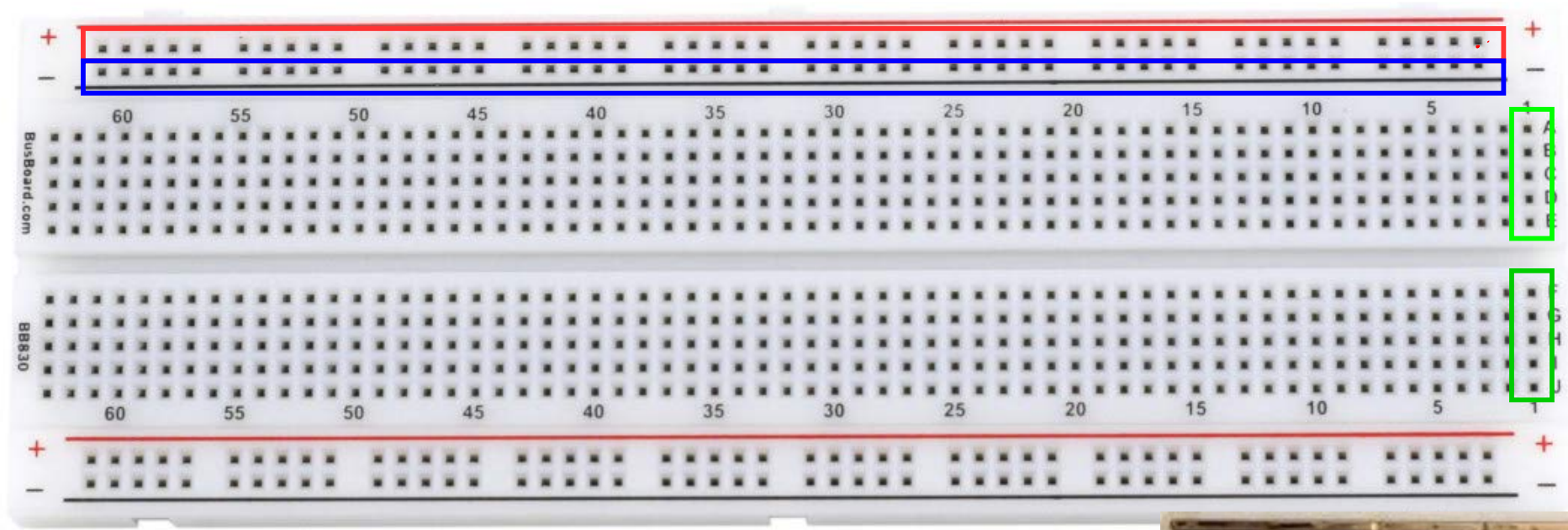
Raspberry Pi Model A	700mA
Raspberry Pi Model B	1.2A
Raspberry Pi Model A+	700mA
Raspberry Pi Model B+	1.8A
Raspberry Pi 2 Model B	1.8A
Raspberry Pi 3 Model B	2.5A
Raspberry Pi 3 Model A+	2.5A
Raspberry Pi 3 Model B+	2.5A
Raspberry Pi 4 Model B	3.0A
Raspberry Pi Zero W	1.2A
Raspberry Pi Zero	1.2A

Raspberry Pi Imager



Bilgi: Ctrl+Shift+X ek Özellikler Acar!

Devre Tahtasi (Breadboard)



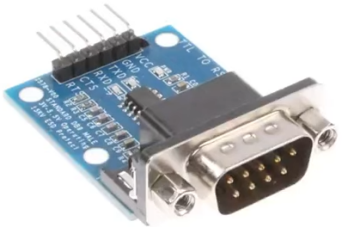
GPIO Haritasi

i²C: Inter-Integrated Circuit
SCL: Serial Clock
SDA: Serial Data

GPCLK: General Purpose
Clock (Fix Frekans
Ayarlanabilir Pin)

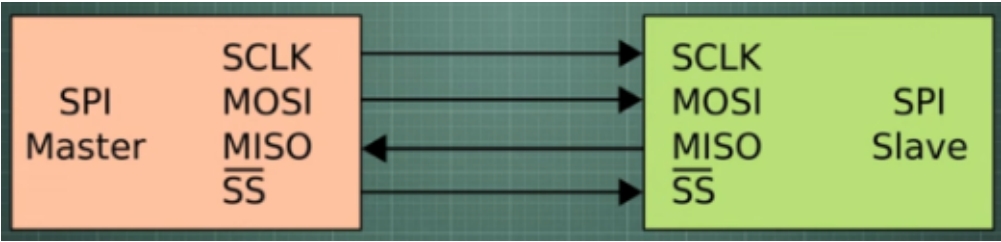
J8					
Power	+3,3V	1	2	+5V	Power
{I2C} SDA1	GPIO2	3	4	+5V	Power
{I2C} SCL1	GPIO3	5	6	GND	
GPCLK0	GPIO4	7	8	GPIO14	{UART} TXD0
	GND	9	10	GPIO15	{UART} RXD0
	GPIO17	11	12	GPIO18	PCM_CLK
	GPIO27	13	14	GND	
	GPIO22	15	16	GPIO23	
Power	+3,3V	17	18	GPIO24	
SPI0_MOSI	GPIO10	19	20	GND	
SPI0_MISO	GPIO9	21	22	GPIO25	
SPI0_SCLK	GPIO11	23	24	GPIO8	SPI0_CE0_N
	GND	25	26	GPIO7	SPI0_CE1_N
{ID EEPROM}	ID_SD	27	28	ID_SC	{ID EEPROM}
GPCLK1	GPIO5	29	30	GND	
GPCLK2	GPIO6	31	32	GPIO12	PWM0
PWM1	GPIO13	33	34	GND	
PCM_FS	GPIO19	35	36	GPIO16	
	GPIO26	37	38	GPIO20	PCM_DIN
	GND	39	40	GPIO21	PCM_DOUT

UART: Universal Asynchronous
Receiver Transmitter



EEPROM: Electrically
Eraseable Programmable
Read-Only Memory

PCM: Pulse-Code Modulation



wiringPi Pin	BCM GPIO	Name	Header	Name	BCM GPIO	wiringPi Pin
—	—	3.3v	1 2	5v	—	—
8	R1:0/R2:2	SDA	3 4	5v	—	—
9	R1:1/R2:3	SCL	5 6	0v	—	—
7	4	GPIO7	7 8	TxD	14	15
—	—	0v	9 10	RxD	15	16
0	17	GPIO0	11 12	GPIO1	18	1
2	R1:21/R2:27	GPIO2	13 14	0v	—	—
3	22	GPIO3	15 16	GPIO4	23	4
—	—	3.3v	17 18	GPIO5	24	5
12	10	MOSI	19 20	0v	—	—
13	9	MISO	21 22	GPIO6	25	6
14	11	SCLK	23 24	CE0	8	10
—	—	0v	25 26	CE1	7	11
30	0	SDA.0	27 28	SCL.0	1	31
21	5	GPIO.21	29 30	0V		
22	6	GPIO.22	31 32	GPIO.26	12	26
23	13	GPIO.23	33 34	0V		
24	19	GPIO.24	35 36	GPIO.27	16	27
25	26	GPIO.25	37 38	GPIO.28	20	28
		0V	39 40	GPIO.29	21	29
wiringPi Pin	BCM GPIO	Name	Header	Name	BCM GPIO	wiringPi Pin

Direnc Kodu
SOKAKTA SAYAMAM GIBI

4 – Band Code

2%, 5%, 10%

4k7Ω ±5%

Color	1 st Band	2 nd Band	3 rd Band	Multiplier	Tolerance
Black	0	0	0	1Ω	
Brown	1	1	1	10Ω	± 1%
Red	2	2	2	100Ω	± 2%
Orange	3	3	3	1kΩ	
Yellow	4	4	4	10kΩ	
Green	5	5	5	100kΩ	± 0.5%
Blue	6	6	6	1MΩ	± 0.25%
Violet	7	7	7	10 MΩ	± 0.1%
Grey	8	8	8		± 0.05%
White	9	9	9		
Gold				0.1Ω	± 5%
Silver				0.01Ω	± 10%

5 – Band Code

0.1%, 0.25%, 0.5%, 1%

63k4 0.1%

Wiring Pi Yükleme:

```
sudo apt-get update
```

```
git clone https://github.com/WiringPi/WiringPi
```

```
cd WiringPi
```

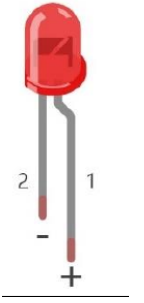
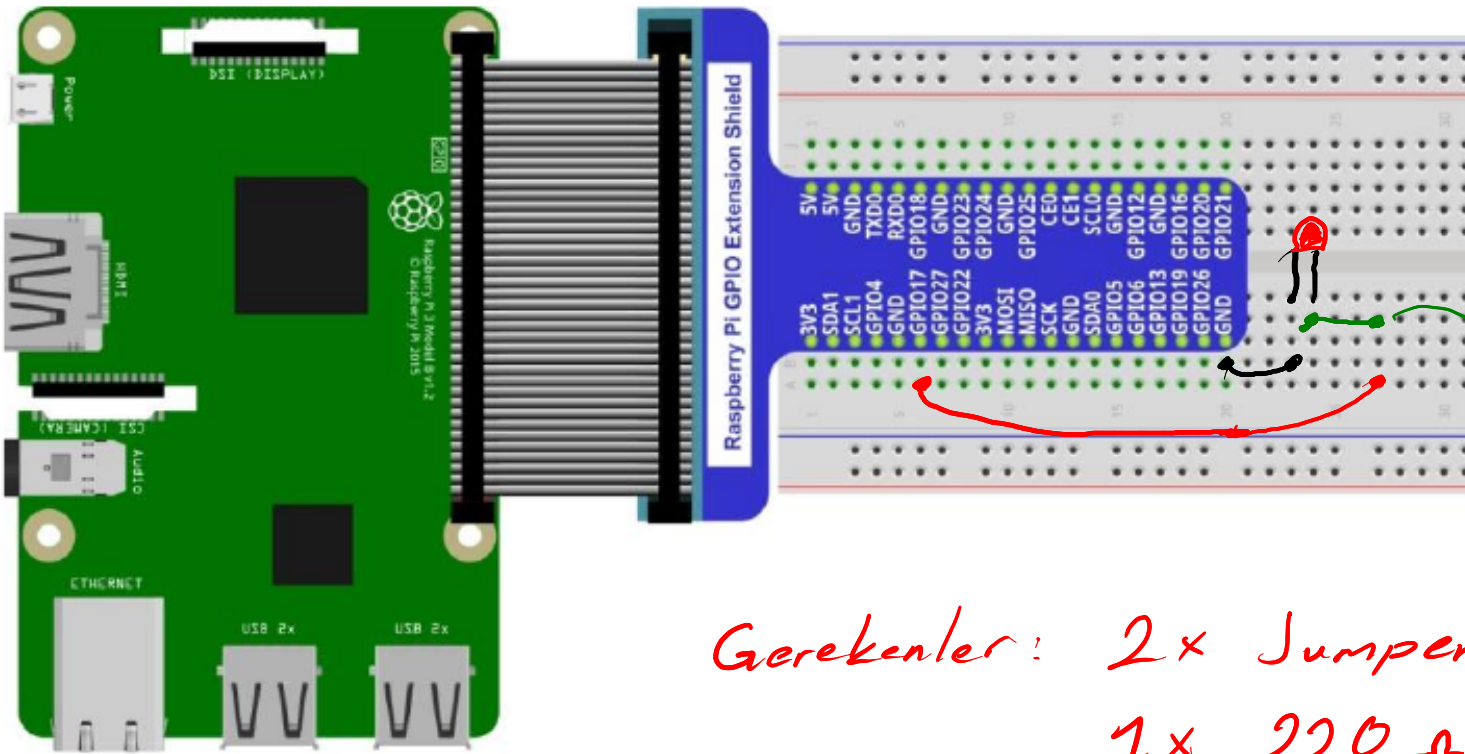
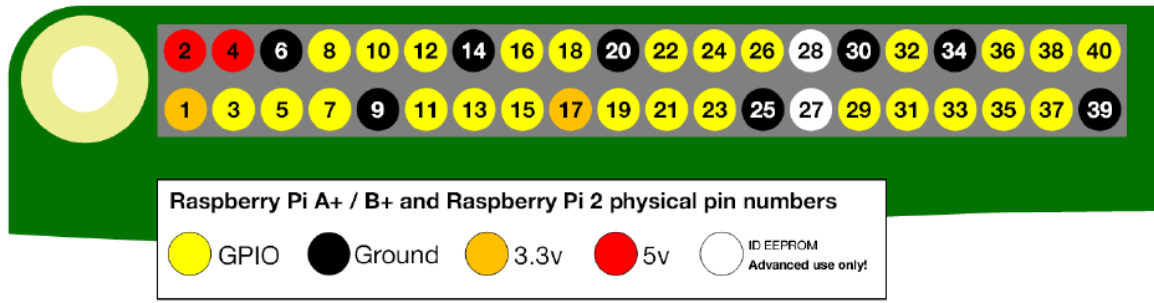
```
./build
```

Test et:

gpio readall											
BCM	wPi	Name	Mode	V	Physical	V	Mode	Name	wPi	BCM	
2	8	3.3v			1	2		5v			
3	9	SDA.1	ALT0	1	3	4		5v			
4	7	SCL.1	ALT0	1	5	6		0v			
		GPIO. 7	IN	1	7	8	0	IN	TxD	15	14
		0v			9	10	1	IN	RxD	16	15
17	0	GPIO. 0	IN	0	11	12	0	IN	GPIO. 1	1	18
27	2	GPIO. 2	IN	0	13	14		0v			
22	3	GPIO. 3	IN	0	15	16	0	IN	GPIO. 4	4	23
		3.3v			17	18	0	IN	GPIO. 5	5	24
10	12	MOSI	IN	0	19	20		0v			
9	13	MISO	IN	0	21	22	0	IN	GPIO. 6	6	25
11	14	SCLK	IN	0	23	24	1	IN	CE0	10	8
		0v			25	26	1	IN	CE1	11	7
0	30	SDA.0	IN	1	27	28	1	IN	SCL.0	31	1
5	21	GPIO. 21	IN	1	29	30		0v			
6	22	GPIO. 22	IN	1	31	32	0	IN	GPIO. 26	26	12
13	23	GPIO. 23	IN	0	33	34		0v			
19	24	GPIO. 24	IN	0	35	36	0	IN	GPIO. 27	27	16
26	25	GPIO. 25	IN	0	37	38	0	IN	GPIO. 28	28	20
		0v			39	40	0	IN	GPIO. 29	29	21
BCM	wPi	Name	Mode	V	Physical	V	Mode	Name	wPi	BCM	

1. Led Yakma

Hatırlatma: !!!



Gerekenler: 2x Jumper kablo
1x 220 Ω direnc
1x Led

High 1
Low 0

2. Button ile Led Yakma

Gerekenler: 5x Jumper Kablo
1x Button
1x Led
1x 220 Ω Direnç
2x 10k Ω Direnç

