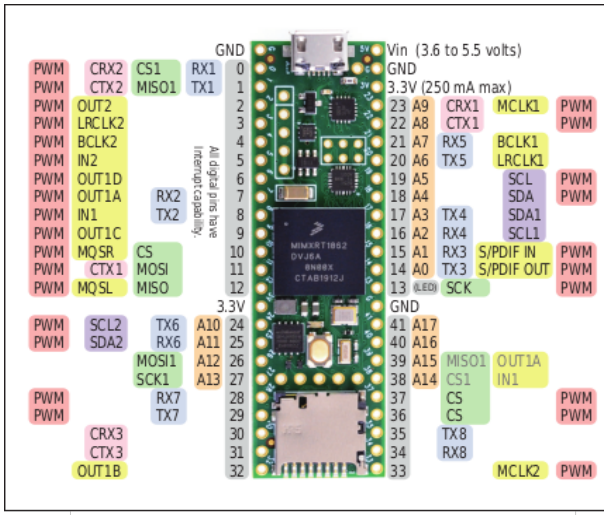
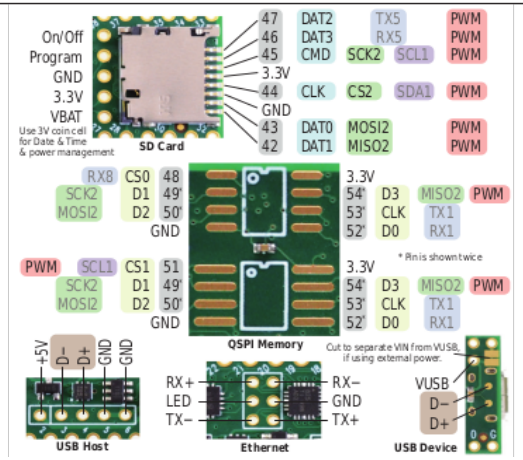
ct-Bot Teensy 4.1 Pin Mapping

Pin		Funktion Teensy 4.1	Verwendung Teensy 4.1	neu	optional	Pad Name
0	UART/SPI/PWM	RX1/CS1/PWM (F: 1.1)	SPI 2 Slave CS 1 oder UART 3	x	x	GPIO_AD_B0_03
1	UART/SPI/PWM	TX1/MISO1/PWM (F: 1.0)	SPI 2 Slave MOSI (SIN) oder UART 3	x	x	GPIO_AD_B0_02
2	I2S/PWM	OUT2/PWM (F: 4.2)	I2S Out	x	x	GPIO_EMC_04
3	I2S/PWM	LRCLK2/PWM (F: 4.2)	I2S LRCLK	x	x	GPIO_EMC_05
4	I2S/PWM	BCLK2/PWM (F: 2.0)	I2S BCLK	x	x	GPIO_EMC_06
5	PWM	PWM (F: 2.1)	Servo 1 PWM		x	GPIO_EMC_08
6	I2S/PWM	OUT1D/PWM (F: 2.2)	Servo 2 PWM	x	x	GPIO_B0_10
7	UART/I2S/PWM	RX2/OUT1A/PWM (F: 1.3)	Uart 2 (Motor-Ctrl) RX	x		GPIO_B1_01
8	UART/PWM	TX2/PWM (F: 1.3)	Uart 2 (Motor-Ctrl) TX	x		GPIO_B1_00
9	I2S/PWM	OUT1C/PWM (F: 2.2)	Debug LED	x		GPIO_B0_11
10	SPI/PWM	CS0/PWM (Q: 1.0)	SPI 1 Master CS 1	x	x	GPIO_B0_00
11	SPI/PWM	MOSI(SOUT)0/PWM (Q: 1.2)	SPI 1 Master MOSI	x	x	GPIO_B0_02
12	SPI/PWM	MISO(SIN)0/PWM (Q: 1.1)	SPI 1 Master MISO	x	x	GPIO_B0_01
13	SPI/PWM	SCK0/PWM (Q: 2.0)	SPI 1 Master SCK	x	x	GPIO_B0_03
14	ADC/UART/PWM	A0/TX3/PWM (Q: 3.2)	Strommessung 5V	x		GPIO_AD_B1_02
15	ADC/UART/PWM	A1/RX3/PWM (Q: 3.3)	Strommessung Servos	x		GPIO_AD_B1_03
16	ADC/UART/I2C	A2/RX4/SCL1	I2C 2 (IMU)	x	x	GPIO_AD_B1_07
17	ADC/UART/I2C	A3/TX4/SDA1	I2C 2 (IMU)	x	x	GPIO_AD_B1_06
18	ADC/I2C/PWM	A4/SDA0/PWM (Q: 3.1)	I2C 1 (5V: LEDs, ENA, CNY70, Sens)	x		GPIO_AD_B1_01
19	ADC/I2C/PWM	A5/SCL0/PWM (Q: 3.0)	I2C 1 (5V: LEDs, ENA, CNY70, Sens)	x		GPIO_AD_B1_00
20	ADC/UART/I2S	A6/TX5/LRCLK1	Überwachung Batterie	x		GPIO_AD_B1_10
21	ADC/UART/I2S	A7/RX5/BCLK1	Servo 1 Feedback	x	x	GPIO_AD_B1_11
22	ADC/PWM	A8/PWM (F: 4.0)	Servo 2 Feedback	x	x	GPIO_AD_B1_08
23	ADC/I2S/PWM	A9/MCLK1/PWM (F: 4.1)	Servo 3 Feedback	x	x	GPIO_AD_B1_09
24	ADC/I2C/UART	A10/TX6/SCL2/PWM (F: 1.2)	I2C 3 oder Uart 4	x	x	GPIO_AD_B0_12
25	ADC/I2C/UART	A11/RX6/SDA2/PWM (F: 1.3)	I2C 3 oder Uart 4	x	x	GPIO_AD_B0_13
26	ADC/SPI	A12/MOSI(SOUT)	SPI 2 Slave MISO (SOUT)	x	x	GPIO_AD_B1_14
27	ADC/SPI	A13/SCK1	SPI 2 Slave SCK	x	x	GPIO_AD_B1_15
28	UART/PWM	RX7/PWM (F: 3.1)	Servo 3 PWM	x	x	GPIO_EMC_32
29	UART/PWM	TX7/PWM (F: 3.1)	Servo 4 PWM	x	x	GPIO_EMC_31
30		GPIO30	Fernbedienung			GPIO_EMC_37
31		GPIO31	BPS Sensor		x	GPIO_EMC_36
32	I2S	OUT1B/GPIO32	GPIO_1	x	x	GPIO_B0_12
33	PWM	PWM (F: 2.0)	GPIO_2	x	x	GPIO_EMC_07
34	UART	RX8	Uart 1 (WiFi) RX			GPIO_B1_13
35	UART	TX8	Uart 1 (WiFi) TX			GPIO_B1_12
36	SPI/PWM	CS0/PWM (F: 2.3)	SPI 1 Master CS 2	x	x	GPIO_B1_02
37	SPI/PWM	CS0/PWM (F: 2.3)	SPI 1 Master CS 3	x	x	GPIO_B1_03
38	ADC	A14/CS1	Kantensensor L			GPIO_AD_B1_12
39	ADC	A15/MISO(SIN)1/OUT1A	Kantensensor R			GPIO_AD_B1_13
40	ADC	A16	Liniensensor R			GPIO_AD_B1_04
41	ADC	A17	Liniensensor L			GPIO_AD_B1_05
D+	USB	USB2_DP	USB Host	x	x	
D-	USB	USB2_DN	USB Host	x	x	
Vb		VBat	n/a			VDD_SNVS_IN
R		On/Off	On_Off	x	x	ONOFF





Anmerkungen

- Distanzsensoren über I2C (z.B. VL53L0X)
- Transportfachüberwachung über I2C (z.B. VL6180X)

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