
Embedded Systems Hands-On 1: Design and Implementation of Hardware/Software Systems

Documentation of the Extensionboard
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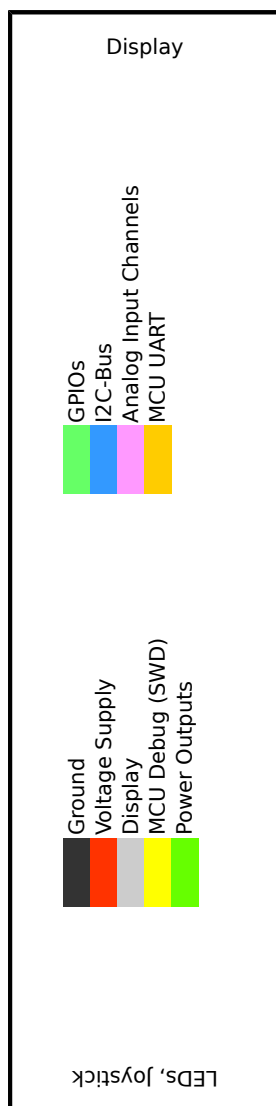
Embedded Systems & Applications

1 Specification

Operating voltage: 5 V

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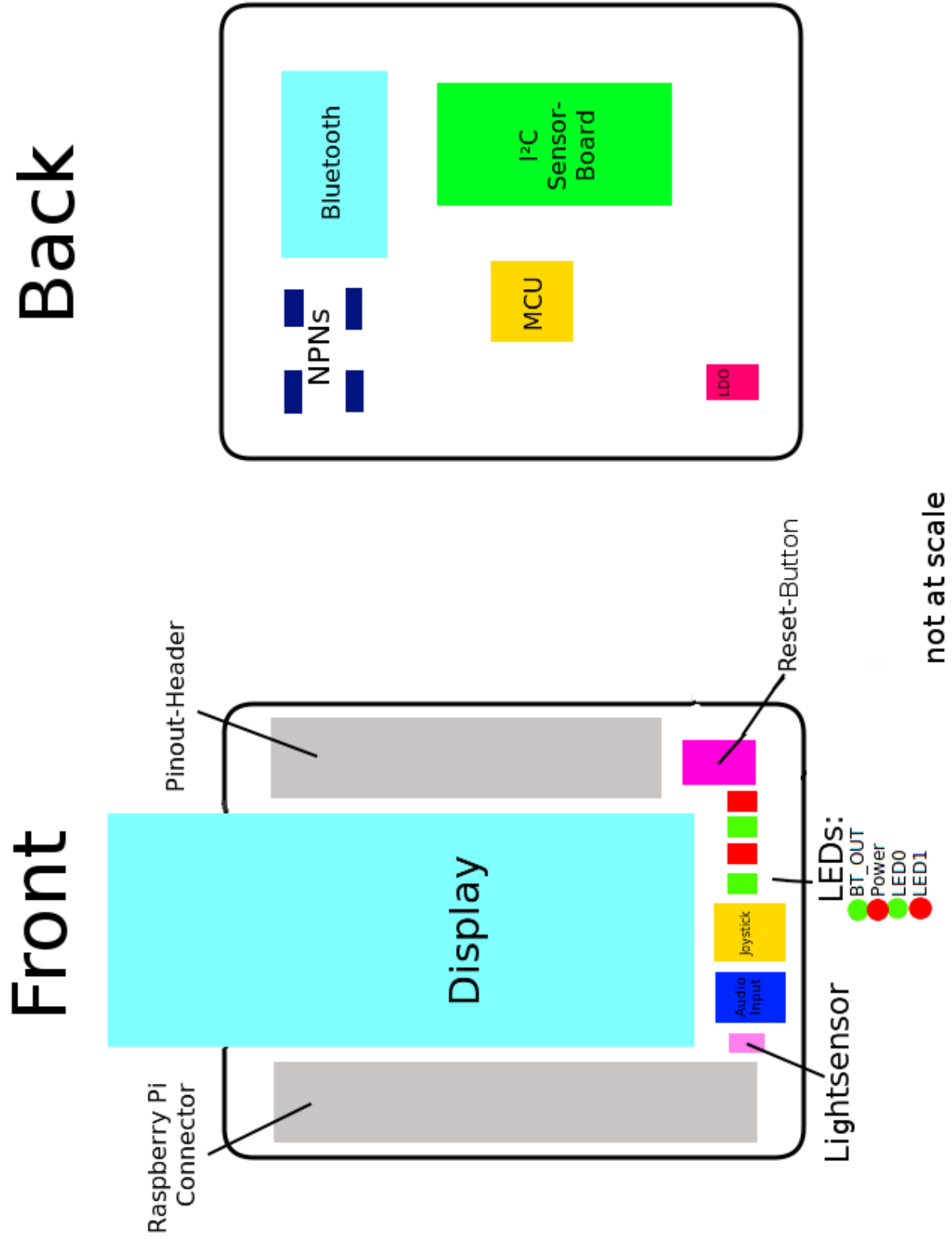
5V	5V		RX	TX	LED				DC		RESET	CE					GND		
										MOSI	MISO	SCK	SWCLK	SWD			GND		



GND	MISO	CE	SWCLK	0	2	RX	4	SCL	7	9	LIGHT	M2	M4
3.3V	5V	SCK	DC	1	3	TX	5	6	SDA	8	10	M1	M3

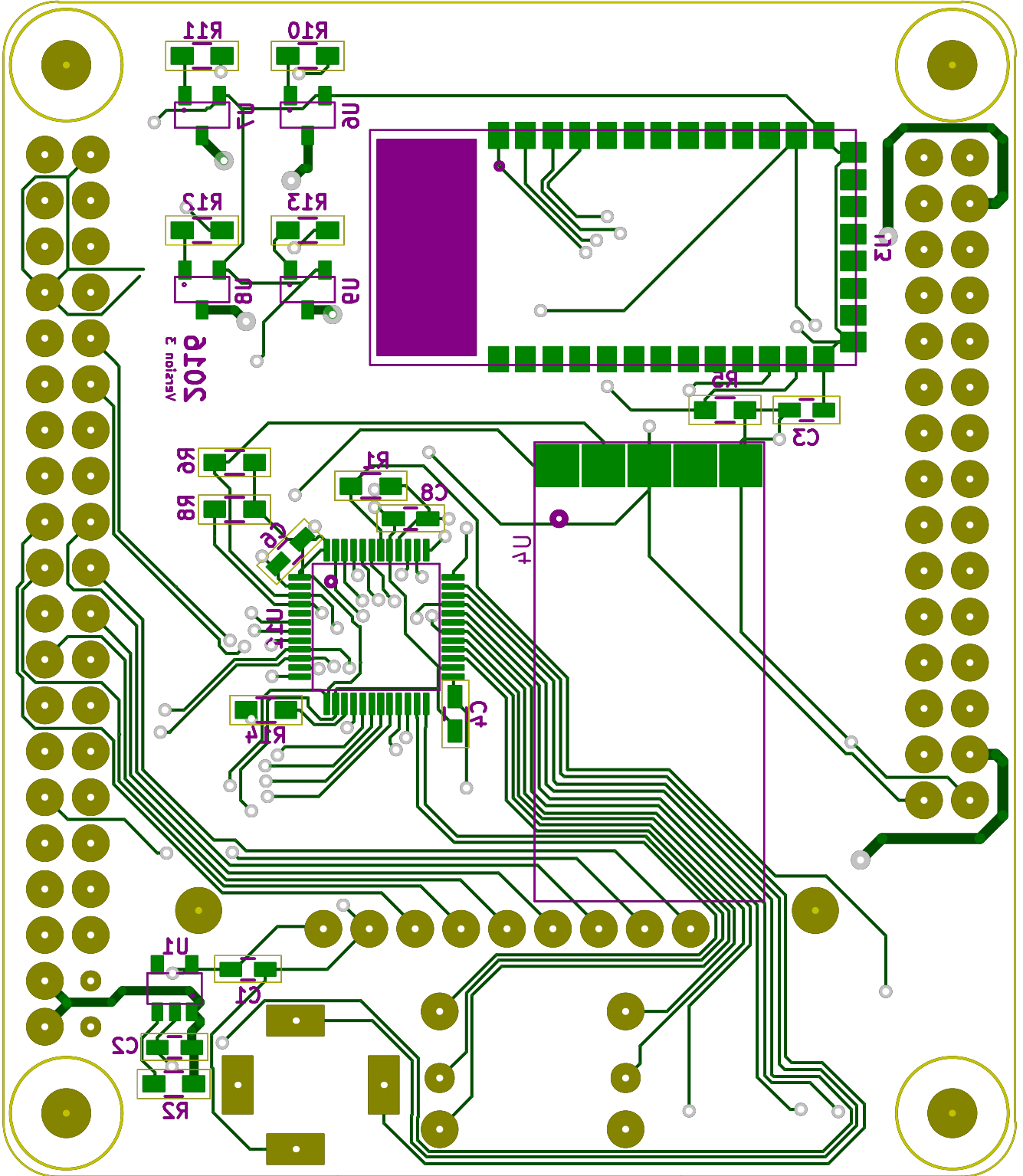
Pinout Header

3 Arrangement of Components



4





6 References for Relevant Components

Component	Name	Description	References
U1	MIC5504-3.3YM5-TR	Voltage Regulator	Datasheet
U2	MC32882	Reset Button	Datasheet
U3	HM-10	Bluetooth-Modul	Resources
U4	AltIMU-10_v3	Integriertes Sensor-Board	Distributor
U5	Ili9341	LCD-Display	Specification
U6,U7,U8,U9	BC81725	NPN-Transistor	Datasheet
U10	SKQUCAA010	Joystick	Datasheet
U11	STM32F030CCT6	ARM Cortex-M0 Mikrocontroller	Datasheet
U12	KPS-3227SP1C	Lichtsensord	Datasheet
U13	TSW-115-07-T-D	30-Pin Header	Datasheet
U14	FC681374V	3.5mm Audio Jack	Datasheet