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

Documentation of the Extensionboard

Carsten Heinz

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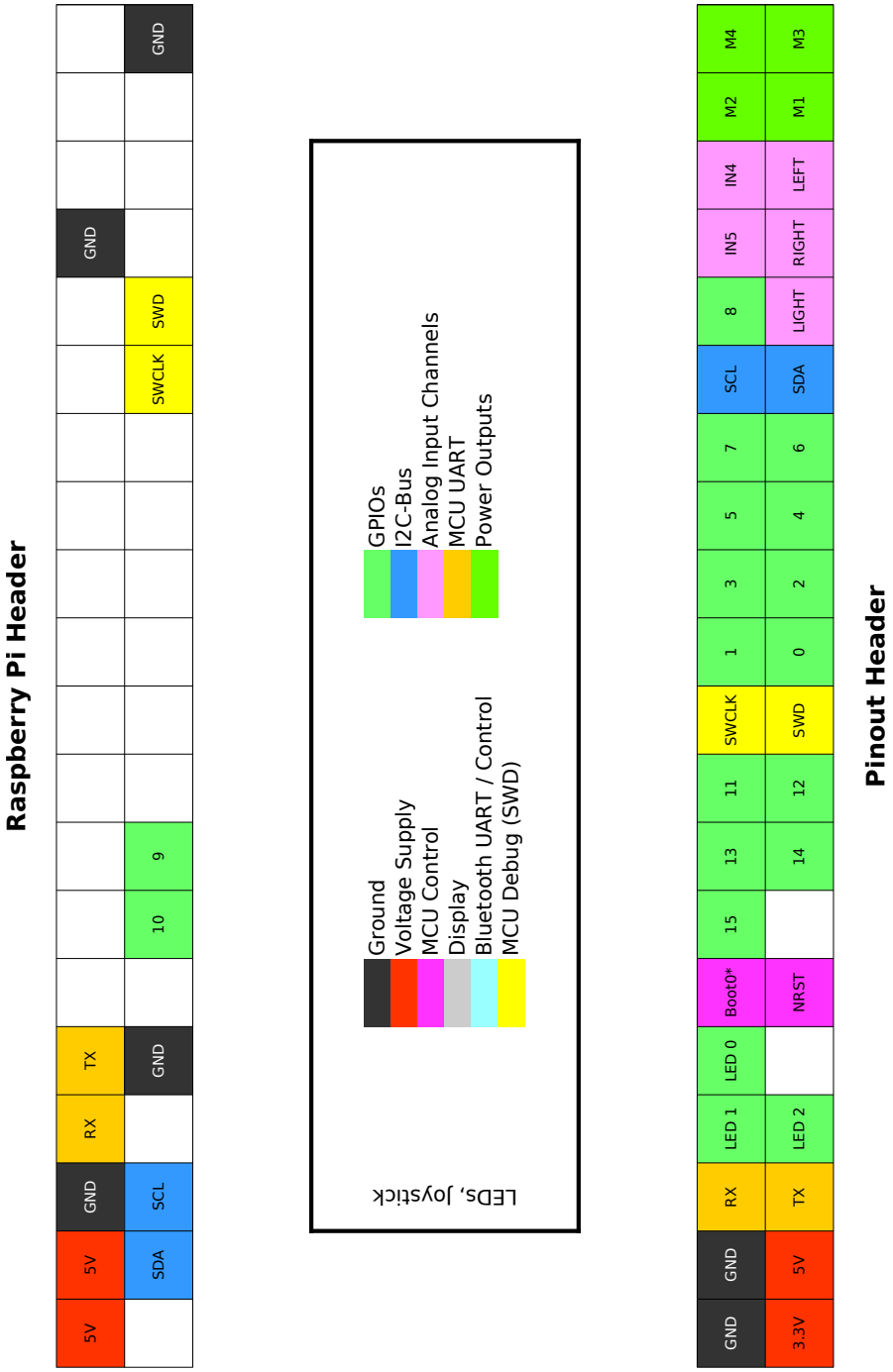
TECHNISCHE UNIVERSITÄT DARMSTADT

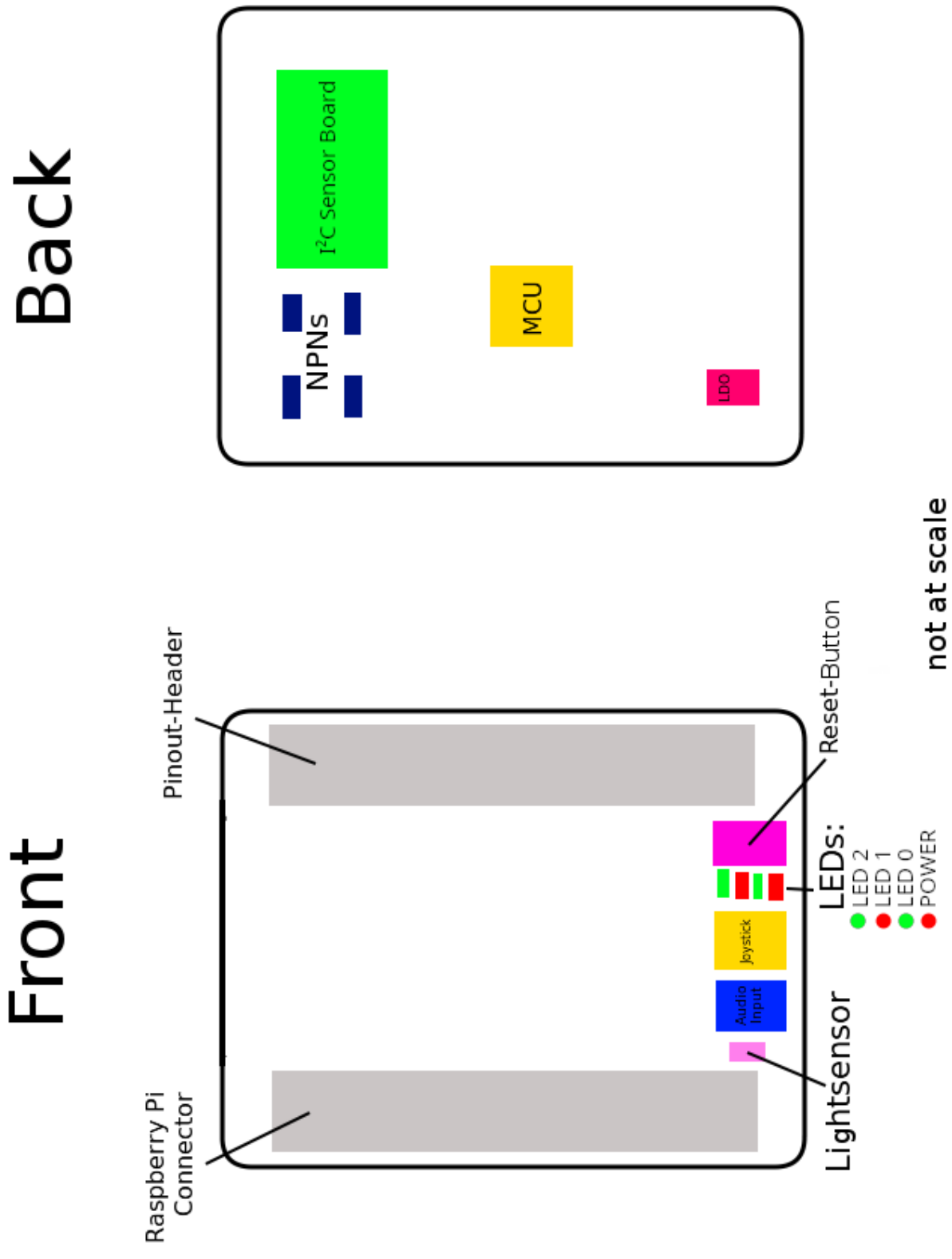
1 Specification

Operating voltage: 5 V

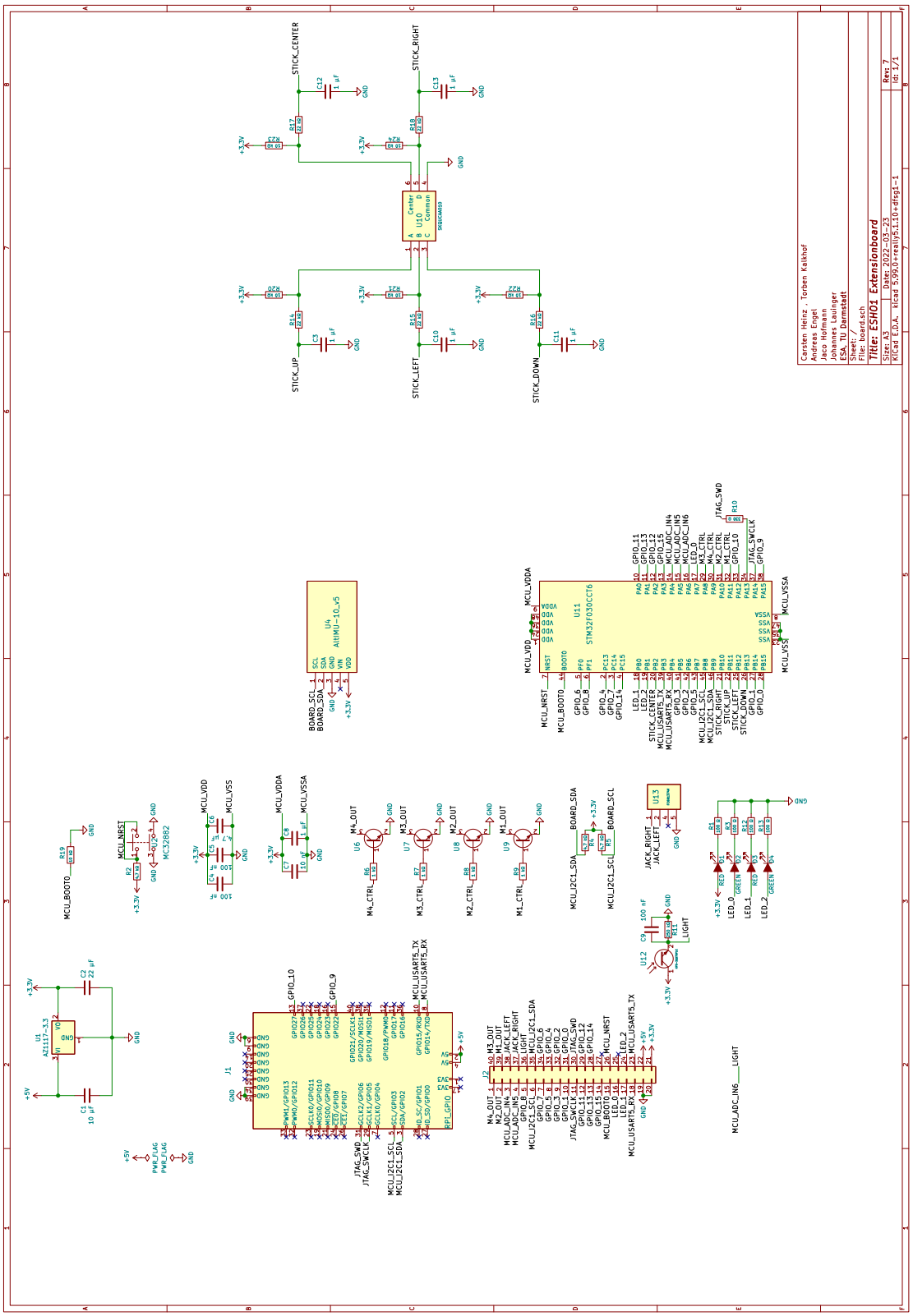
2 Pinout Mapping



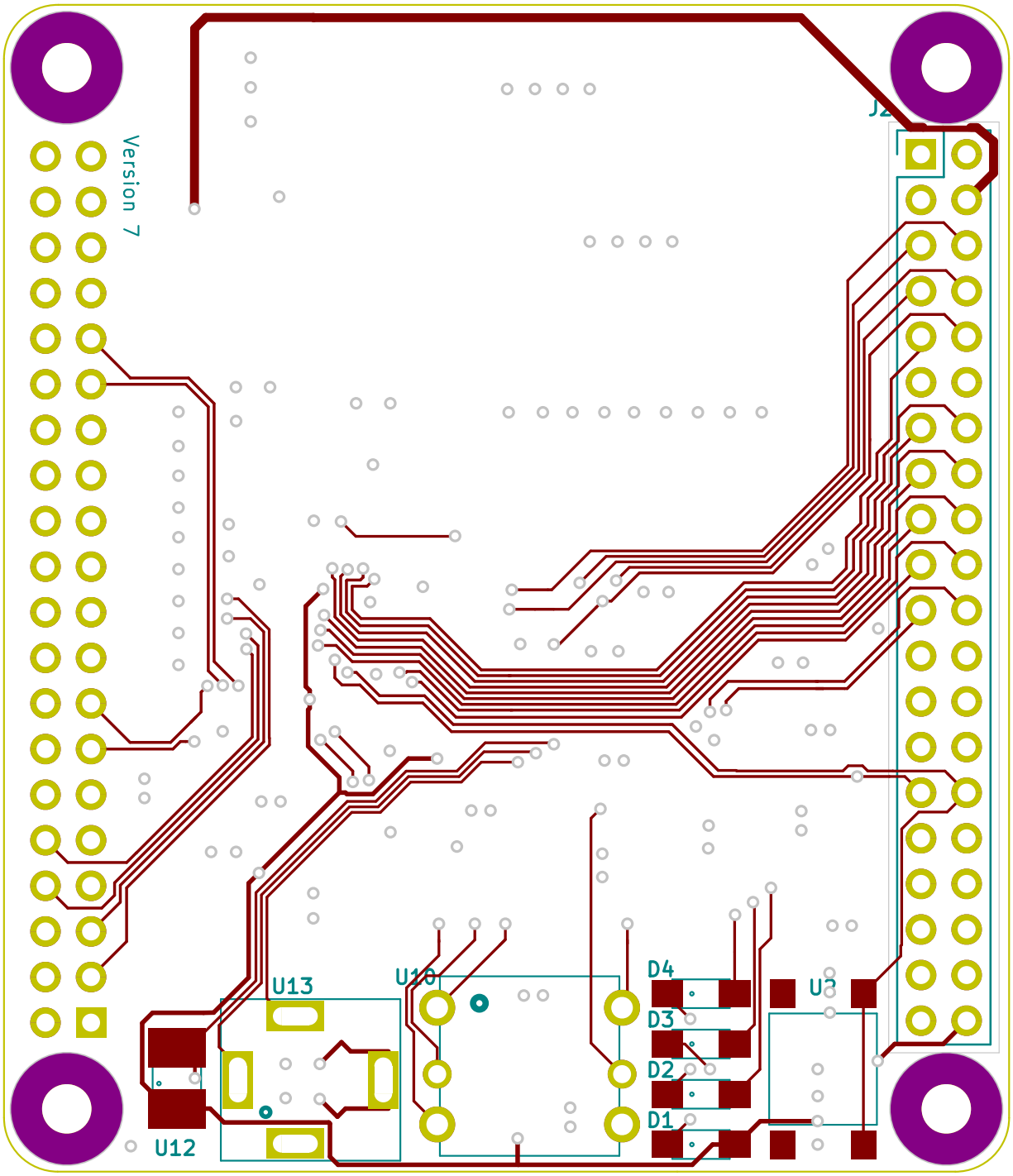
3 Arrangement of Components

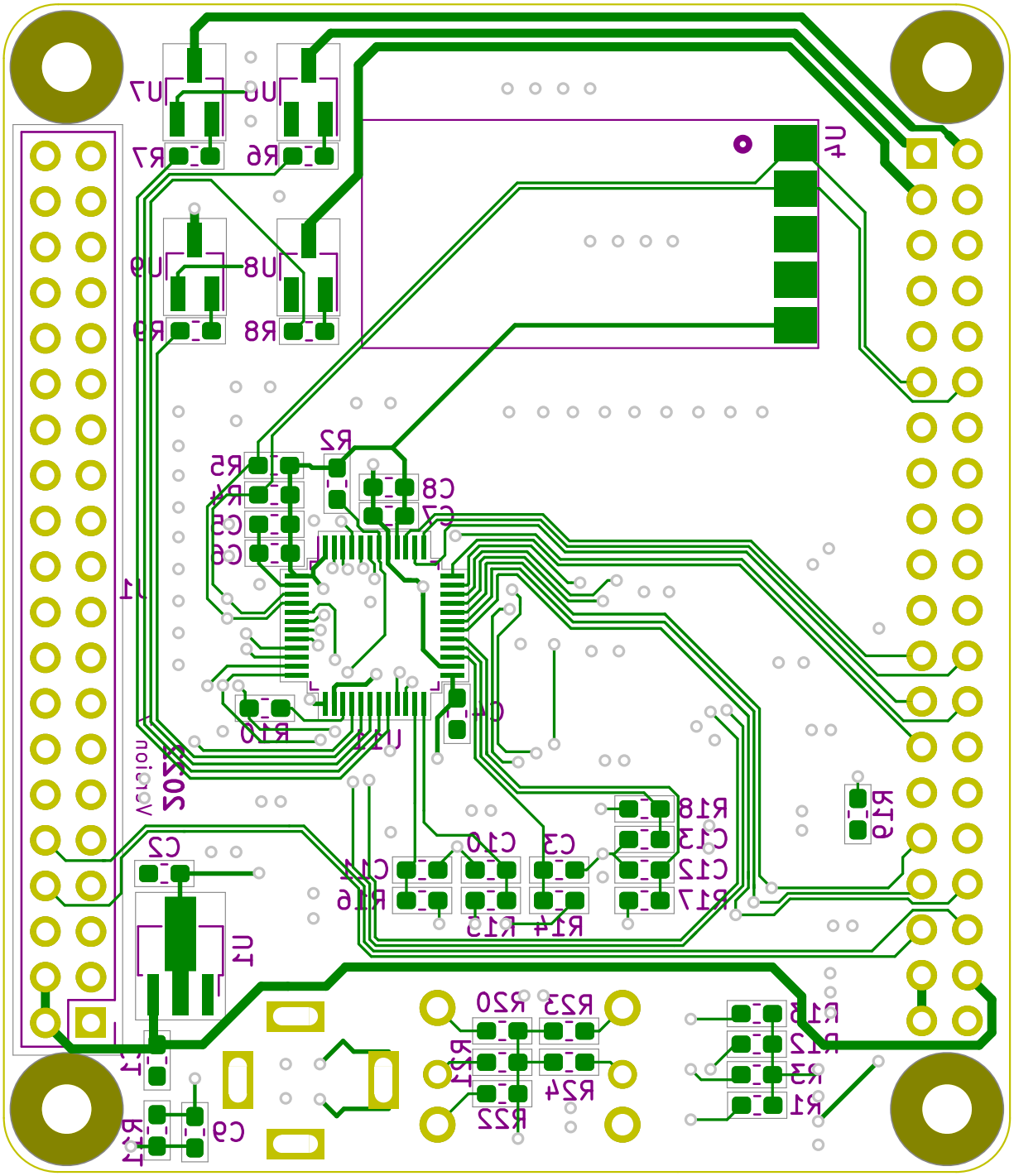


4 PCB Schematic



5 PCB Layout





6 References for Relevant Components

Component	Name	Description	References
U1	AZ1117-3.3	Voltage Regulator	Datasheet
U2	MC32882	Reset Button	Datasheet
U4	AltIMU-10_v3	Integriertes Sensor-Board	Distributor
	AltIMU-10_v5	Integriertes Sensor-Board	Distributor
U6,U7,U8,U9	BC817-25	NPN-Transistor	Datasheet
U10	SKQUCAA010	Joystick	Datasheet
U11	STM32F030CCT6	ARM Cortex-M0 Mikrocontroller	Datasheet
U12	KPS-3227SP1C	Lichtsensor	Datasheet
U13	FC681374V	3.5mm Audio Jack	Datasheet
J2	SPC20504	40-Pin Header	Datasheet