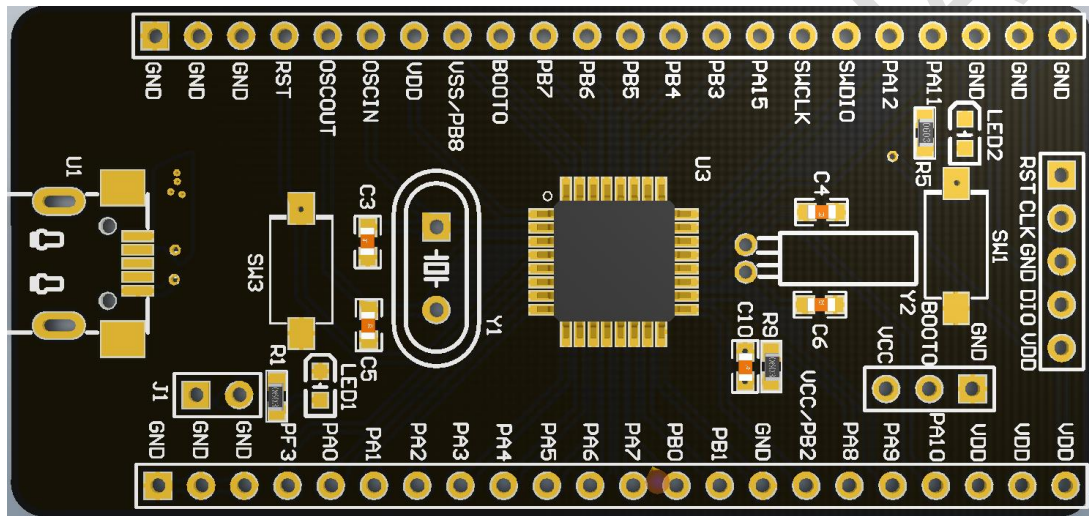


Introduction

The Start Kit uses PY32F030 as the main controller. This Start Kit provides a simple hardware development environment for Puya chips with 32-bit ARM Cortex -M0+ CPU cores. The Start Kit uses the mini-USB interface as the power supply. Provide peripheral resources including expansion pins and SWD, Reset, Boot, User button key, Reset key, LED and other peripheral resources. This document provides detailed hardware schematics and associated applications.



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1 Function Pin Assignment

Table 1-1 Pin assignment

Function	pin	describe	Remark
LED	\	LED1	Power LED
	PA11	LED2	LED
KEY	PA12	SW1	User Key
	PF2	SW3	Reset Key

2 Getting Started Guide

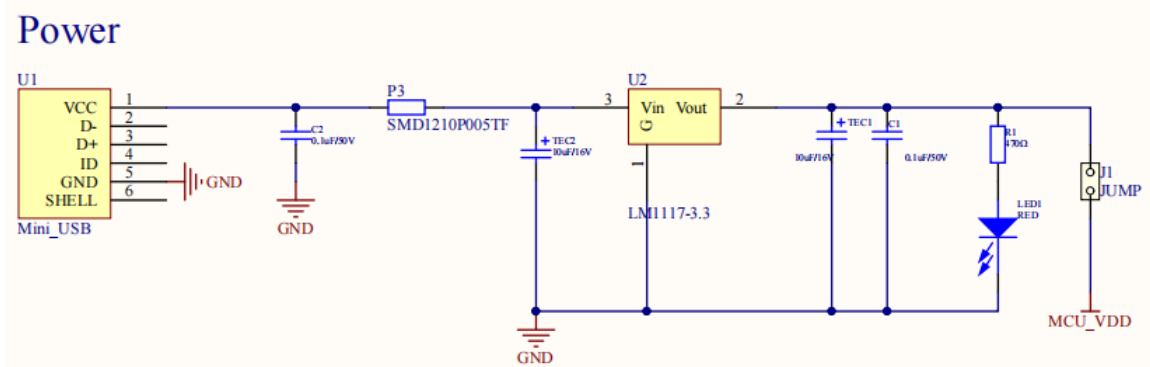
The Start Kit uses a mini-USB to LDO to provide 3.3V power. In order to download programs to the Start Kit, a mini-USB cable is required. Select the correct boot mode, connect the USB cable, if LED1 is lit, it means the power connection is correct. The routines are only available in the Keil version.

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3 Hardware Design Overview

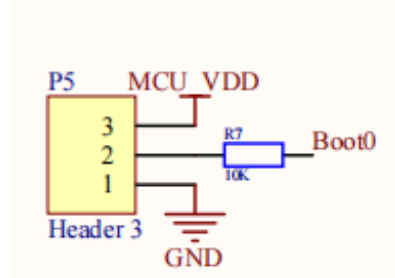
3.1 Power supply

Figure 3.1-1 Schematic diagram of power supply



3.2 Startup mode selection

Figure 3.2-1 Schematic diagram of startup mode selection



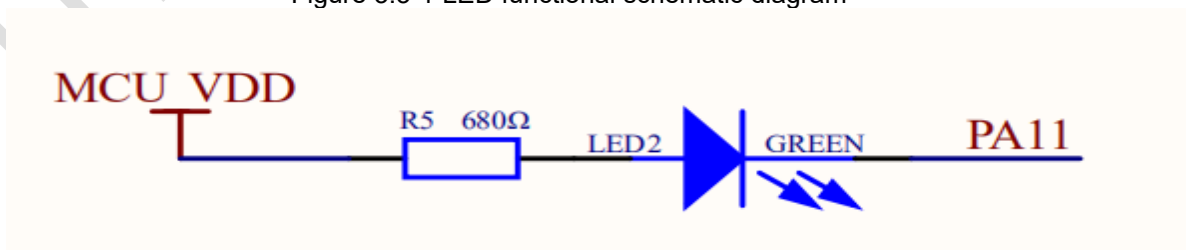
Through BOOT0 pin and boot configuration bit nBOOT1 (stored in Option bytes), three different boot modes can be selected, as shown in the following table:

Table 3.2- 1 Startup mode configuration

nBoot1 bit	BOOT0 pin	boot mode
X	0	Select Main flash as the boot area
1	1	Select System memory as the boot area
0	1	Select SRAM as the boot area

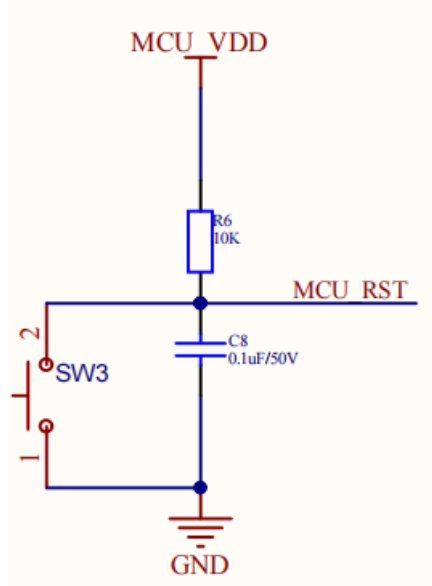
3.3 LED indicator

Figure 3.3-1 LED functional schematic diagram



3.4 Reset Button

Figure 3.4-1 Function schematic diagram of reset button



4 Application Firmware Demo

4.1 GPIO Toggle

4.1.1 DEMO purpose

This routine includes the following functions of the MCU:

- Learn to use GPIO to control LEDs
- Learn to use SysTick to generate delays

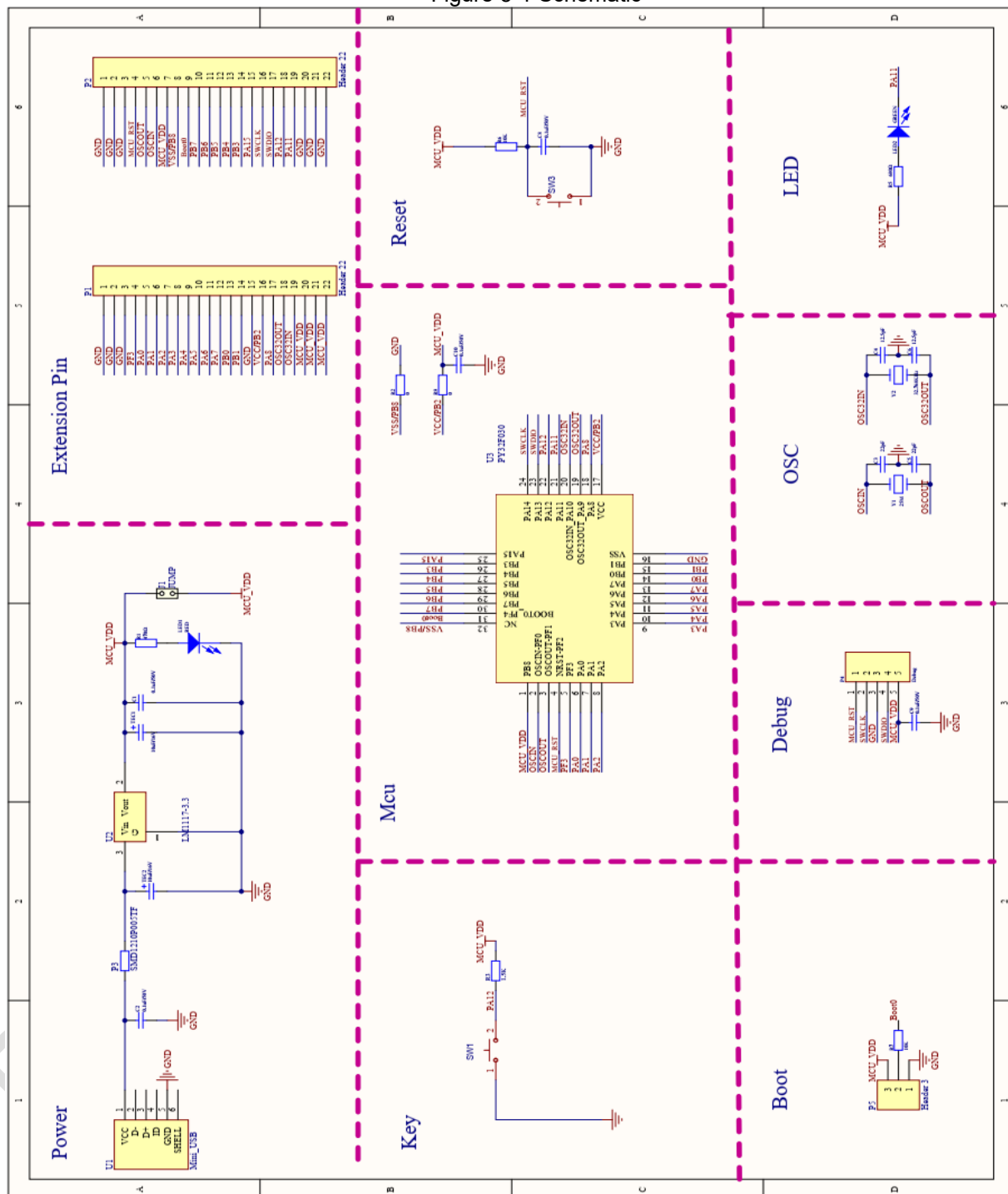
There is 1 LED on the development board. The LEDs are controlled via GPIO. This example will describe how to light up an LED.

4.1.2 DEMO execution result

Download the program <GPIO_Toggle> to the development board, the LED blinks.

5 Schematic

Figure 5-1 Schematic



6 Version history

Version	Content	Date
V0.1	Initial Release	2021.09.16
V1.0	Update schematic	2022.07.05



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