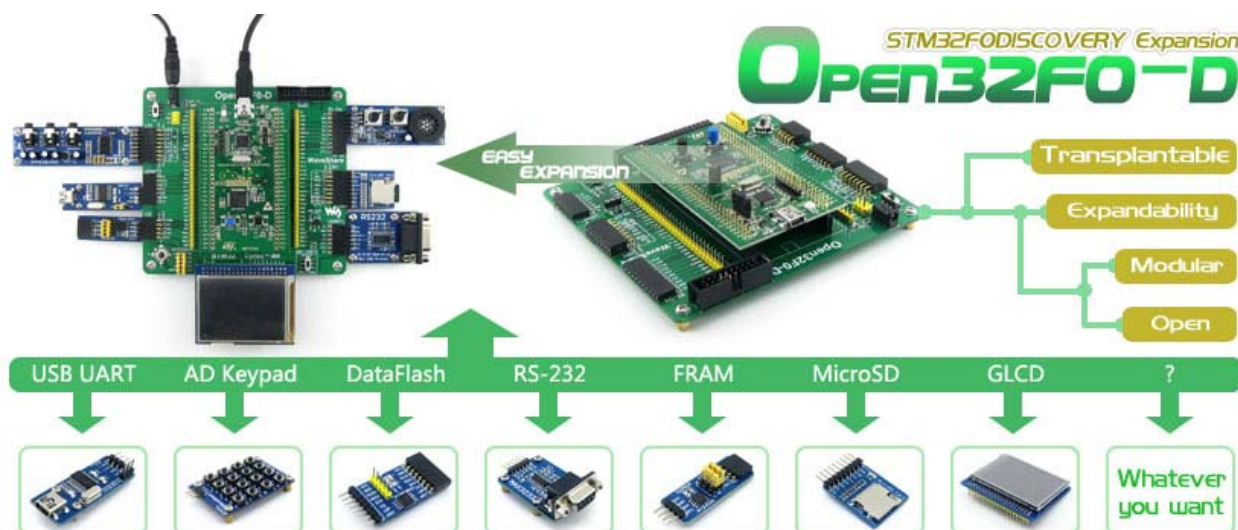


# Open32F0-D Package B

DVD с ПО и примерами можно скачать по ссылке:

<https://mega.co.nz/#!Jc0XBSSJ!94-hAujX5jAs29t4q7VTth4PmF74IBBRwtnESeEIRN4>



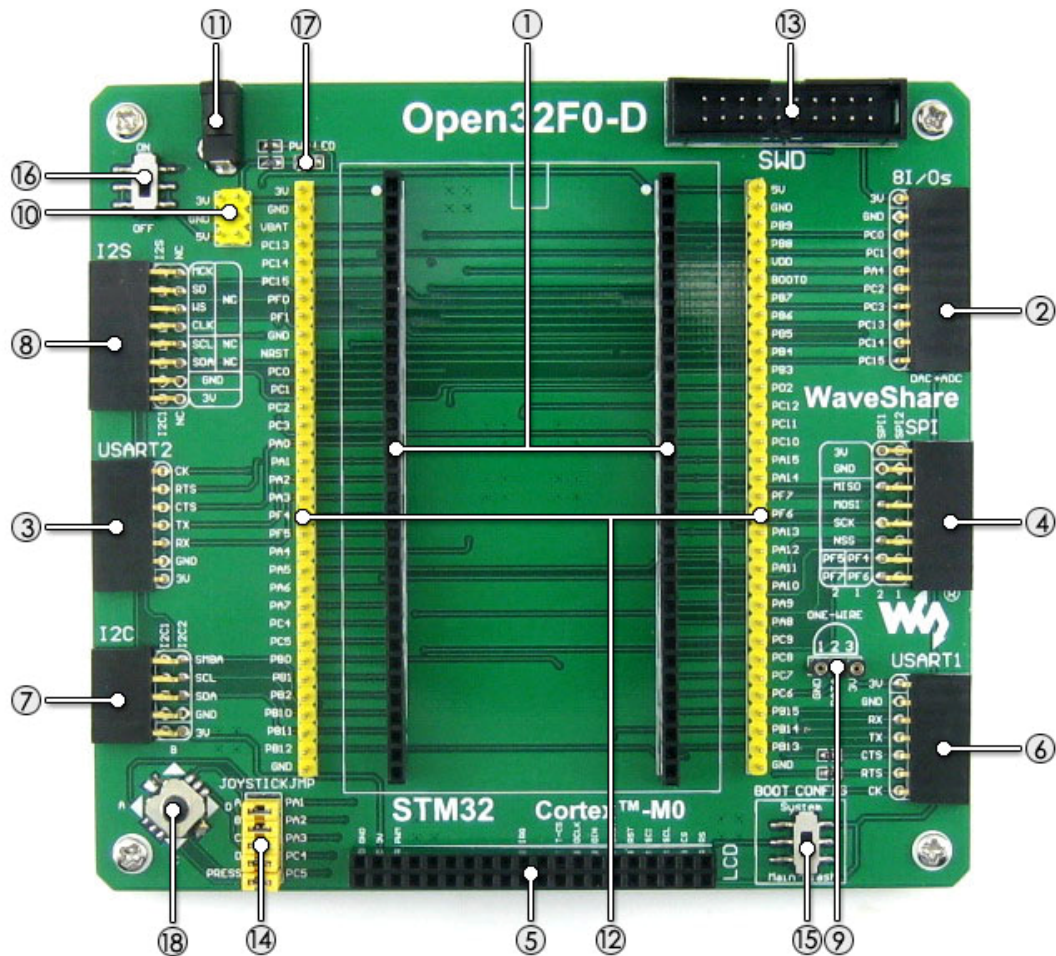
## Overview

Open32F0-D is an STM32 development board designed for the ST official tool **STM32F0DISCOVERY**, which features the **STM32F051R8T6** microcontroller onboard.

The Open32F0-D supports further expansion with various optional accessory boards for specific application. The modular and open design makes it the ideal for starting application development with STM32F0 series microcontrollers.

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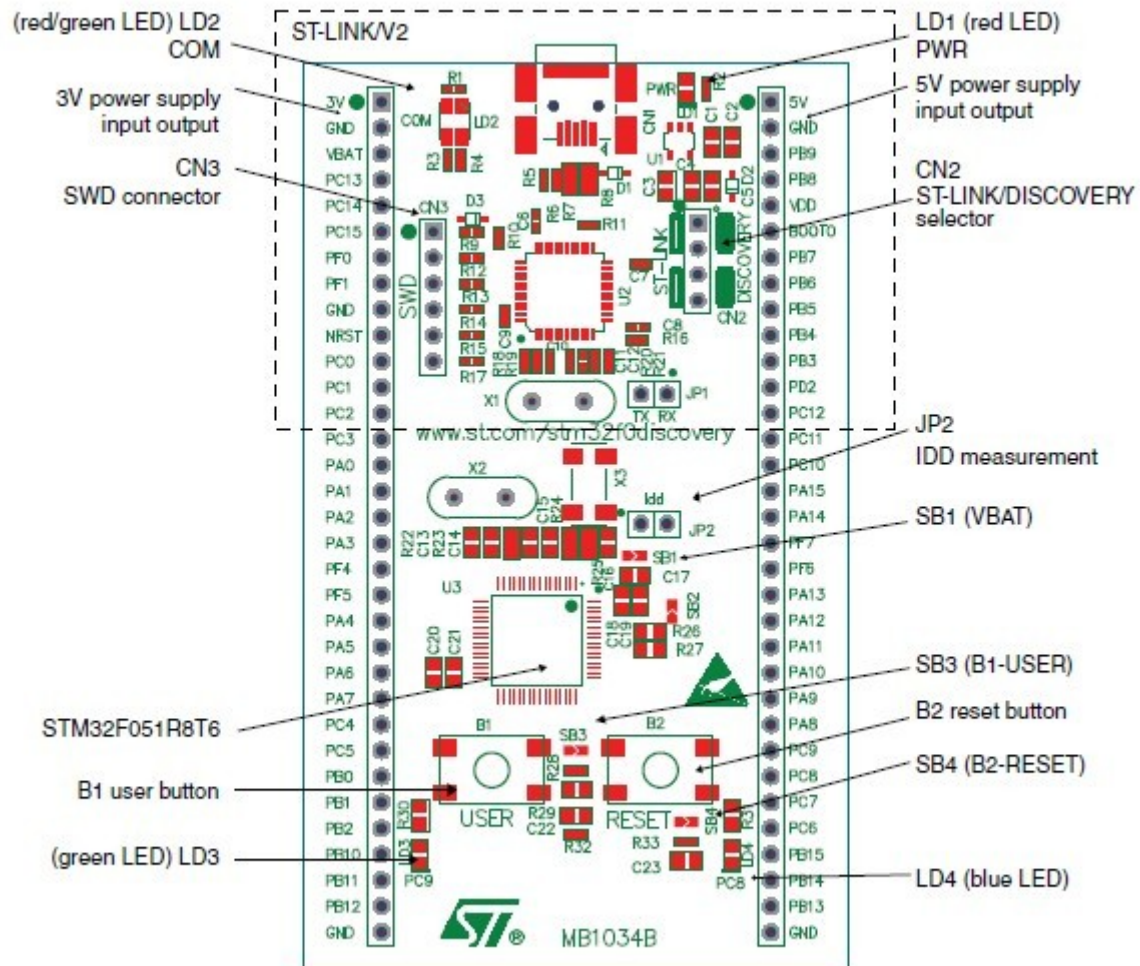
## What's on the mother board



1. STM32F0DISCOVERY socket: for easily connecting the STM32F0DISCOVERY
2. 8I/Os + DAC + ADC interface: for connecting accessory boards such buttons, motors, AD/DA module etc.
3. USART2 interface: easily connects to RS232, RS485, USB TO 232, etc.
4. SPI1 / SPI2 interface: easily connects to SPI peripherals such as DataFlash (AT45DBxx), SD card, MP3 module, etc.
5. LCD connector: for connecting touch screen LCD
6. USART1 interface: easily connects to RS232, RS485, USB TO 232, etc.
7. I2C1 / I2C2 interface: easily connects to I2C peripherals such as I/O expander (PCF8574), FRAM (FM24CLxx), etc.
8. I2S / I2C1 interface: easily connects to I2S peripherals such as audio module, etc.
9. ONE-WIRE interface: easily connects to ONE-WIRE devices (TO-92 package), such as temperature sensor (DS18B20), electronic registration number (DS2401), etc.
10. 5V/3.3V power input/output: usually used as power output, also common-grounding with other user board
11. 5V DC jack
12. MCU pins connector: all the MCU I/O ports are accessible on expansion connectors for further expansion
13. SWD interface: for debugging/programming
14. Joystick jumper
  - short the jumper to connect the joystick to default I/Os used in example code
  - open the jumper to connect the joystick to custom I/Os via jumper wires
15. Boot mode switch: for configuring BOOT0 pin

16. Power switch
17. Power indicator
18. Joystick: five positions

## What's on the STM32F0DISCOVERY



- STM32F051R8T6 microcontroller featuring 64 KB Flash, 8 KB RAM in an LQFP64 package
- On-board ST-LINK/V2 with selection mode switch to use the kit as a standalone ST-LINK/V2 (with SWD connector for programming and debugging)
- Board power supply: through USB bus or from an external 5 V supply voltage
- External application power supply: 3 V and 5 V
- Four LEDs:
  - LD1 (red) for 3.3 V power on
  - LD2 (red/green) for USB communication
  - LD3 (green) for PC9 output
  - LD4 (blue) for PC8 output
- Two push buttons (user and reset)
- Extension header for all LQFP64 I/Os for quick connection to prototyping board and easy probing
- An additional board is provided which can be connected to the extension connector for even easier prototyping and probing.

Note:

The STM32F0DISCOVERY integrates ST-LINK/V2 for programming/debugging (SWD only).

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## SWD interfaces

The figure below show the header pinout of SWD interface

**Figure 1.** SWD Header Pinout

