PRODUCT NAME : Mini Quadcopter

PRICE : Rs 14,490.00
SKU : RM1415

DESCRIPTION

Mini Quadcopter

Introduction ?

Mini Quadcopter is a versatile flying development platform that only weights 27g and fits in the palm of your hand. It's advanced functionalities makes it ideal for developers and the Bluetooth LE capabilities makes it easy to fly from mobile devices. With it's small size and weight it's ideal for indoor use, but you can just as easily hover above your house as you can hover under your diningroom table. Designed as a solderless kit, the Crazyflie 2.0 is quickly assembled by attaching the motors to the circuitboard frame and it's ready to fly.

The Crazyflie 2.0 is an open project, with source code and hardware design available and documented. The platform is designed with development in mind, implementing features to make development easier and faster, such as logging and real-time parameter setting and wireless firmware update. The complete development environment for most of the projects is available in the virtual machine, so you don't need to install any toolchains to get into the development. But the virtual machine can just as well be used for flying. Aside from the firmware and software projects, there is also a number of community supported APIs written in Java, Ruby, C/C++, C# and Javascript. For anyone interested in doing more advanced development there is a development adapter kit that supports easy JTAG/SWD connection to both of the MCUs on the Crazyflie 2.0.

Supporting multiple radio protocols, the Crazyflie 2.0 can be used from a Bluetooth LE enabled mobile device or from a computer using theCrazyradio or Crazyradio PA. While flying from a mobile device works great, the real power of the platform is unlocked by connecting it to a computer using the Python client that's a available for Windows, Mac OSX and Linux. This enables you to fully use all the expansion boards, to easily trim flying parameters, graphically log data and set parameters. When connected to a computer, you also get the added benifit of being able to use any gamepad or joystick with at least 4 analog axis for flying. The device can easily be mapped inside the client.

The firmware and software is continously being updated with various improvements and new features added. The

platform supports wireless firmware updates via radio and Bluetooth LE, so when a new new firmware is released it's a breeze to update it.

The Crazyflie 2.0 features a 2x10 pin expansion port, where you can connect expansion boards. Either you could use one of the expansion boards, or you could design your own using the Prototype expansion board or Breakout expansion board. For more information on how the expansion board system works, have a look at the Crazyflie 2.0 buyers guide.

The Crazyflie 2.0 comes as a solderless kit and has to be assembled. Please see below in the Resource section for links for the assembly instructions.

Features?

- Durable design
- Easy to assemble and no soldering required
- Supports expansion boards with automatic detection
- Supports flying from iOS and Android with Bluetooth LE support as well as from Windows/MacOSX/Linux with the Crazyradio or Crazyradio PA
- Tested to above 1 km radio range LOS with Crazyradio PA
- Wireless firmware update
- On-board charging via standard uUSB
- Dual-MCU architecture with dedicated radio/power management SoC for advanced applications
- Using Crazyradio or Crazyradio PA together with a computer the user can log/graph/set variables in real-time via the radio and make full use of the expansion boards

Specification

- Mechanical specs:
- • Weight: 27g
- • Size (WxHxD): 92x92x29mm (motor-to-motor and including motor mount feet)
- Radio specs:
- • 20 dBm radio amplifier tested to > 1 km range LOS with Crazyradio PA
- • Bluetooth Low Energy support with iOS and Android clients available (tested on iOS 7.1+ and Android 4.4+)
- • Radio backwards compatible with original Crazyflie and Crazyradio
- Micro-controllers:
- • STM32F405 main application MCU (Cortex-M4, 168MHz, 192kb SRAM, 1Mb flash)

- • nRF51822 radio and power management MCU (Cortex-M0, 32Mhz, 16kb SRAM, 128kb flash)
- uUSB connector
- • On-board LiPo charger with 100mA, 500mA and 980mA modes available
- • Full speed USB device interface
- • Partial USB OTG capability (Usb OTG present but no 5V output)
- IMU:
- • 3 axis gyro (MPU-9250)
- • 3 axis accelerometer (MPU-9250)
- • 3 axis magnetometer (MPU-9250)
- • high precision pressure sensor (LPS25H)
- Flight specification:
- • Flight time with stock battery: 7 minutes
- • Chraging time with stock battery: 40 minutes
- • Max recommended payload weight: 15 g
- Expansion connector with:
- • VCC (3.0V, max 100mA)
- • GND
- • VCOM (unregulated VBAT or VUSB, max 1A)
- • VUSB (both for input and output)
- • I2C (400kHz)
- • SPI
- • 2 x UART
- • 4 x GPIO/CS for SPI
- • 1-wire bus for expansion identification
- • 2 x GPIO connected to nRF51
- 8KB EEPROM