

# codrone Pro/Lite



Petroner : MSIP-CRM-BYR-BR-PT  
BLE Board : MSIP-CRM-RLI-BLEBoard

www.robolink.co.kr | www.robolinksw.com | www.roboshop.co.kr

Homepage Youtube

Before using CoDrone's software, you need to install CoDrone USB Driver first.

Rokit Bluetooth Module (new BLE) must have the latest version of the software.

[http://robolink.co.kr/download\\_eng.html](http://robolink.co.kr/download_eng.html)

Or, go to Robolink's homepage ▶ EDUCATION menu ▶ Technical support

You can operate CoDrone after installing the driver and PC software.

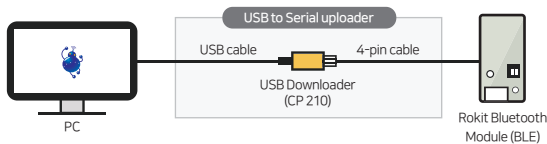
- Bottom Range Sensor**  
Measure the distance to floor
- Battery**  
Fully charges in 40 minutes
- Flight range**  
Distance : Max 160 ft  
Time : Up to 8 min.
- Barometer**  
Assists with altitude control
- Hovering**  
Optical flow sensor for hovering
- Bluetooth**  
4.0
- Attitude sensor**  
3-axis gyroscope  
3-axis accelerometer
- Dimensions**  
133 mm x 133 mm
- Weight**  
Only 37 g

## Starting CoDrone

for Pro/Lite

### Step 1. Connect the BLE board to PC

\*Irrelevant to DIP Switch



Connect in order PC > USB cable > USB Downloader (CP 210) > 4-pin cable > Rokit Bluetooth Module (BLE)

Red light blinks when connecting the PC to the USB cable.

### Step 2. Download CoDrone's USB Helper Drive



Go to Software Download ▶ VCP Drivers page in [silabs.com](http://silabs.com), then download proper file for your operating system

Download USB Helper Download at the bottom of Products menu in download page. ([robolink.co.kr/download\\_eng.html](http://robolink.co.kr/download_eng.html))  
Run USBHelper\_vX.exe, select the port you connected the board, and click CP210X Driver Setup.

"X" is version information.

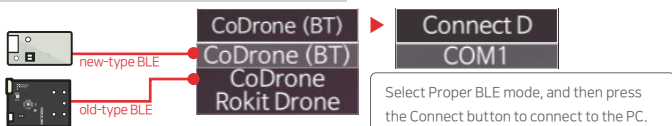
### Download Software



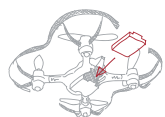
#### Drone Simulator

Download the program from [CoDrone]▶Drone Simulator in [robolinksw.com](http://robolinksw.com)

### Step 3. Pairing - Drone Simulator



Select Proper BLE mode, and then press the Connect button to connect to the PC.



Insert the battery



Searching for signal (blinking)



Connected (solid)

For information related with Rokit Brick, Arduino, and Mobile application, go to [robolinksw.com](http://robolinksw.com).

## Components - CoDrone Pro



- CoDrone
- Joystick modules
- Battery case
- Propeller Replacement tool
- Smart Inventor Board
- Extra propellers
- Battery charger
- Driver (Screw, Nut)
- Rokit Bluetooth Module (BLE)
- 4-pin cable
- Battery
- Bolts, Nuts, and Supporting beams
- USB cable
- 3-pin cable
- Feet (Blue board)
- USB Downloader (CP 210)

## Components - CoDrone Lite



- CoDrone
- Extra propellers
- USB Downloader (CP2102 USB to UART Converter)
- Rokit Bluetooth Module (BLE)
- 4-pin cable
- Propeller Replacement tool
- Battery, Battery charger
- USB cable

## Step 4. Control CoDrone

### Drone Simulator

Up: W  
Down: S  
Turn left: A  
Turn Right: D

Move up / down  
Turn left / right

Forward: ↑  
Backward: ↓  
Left: ←  
Right: →

Move Forward / Backward / Left / Right

**Warning!**

Remember how to initiate an **emergency stop** before flight!

Landing: Space

Once : Landing  
Twice : **Emergency Stop**

Take off : Press **W** key!

## Software

**SMART INVENTOR BOARD**

only for **Pro**

Through **Smart Inventor Board**, You can program with joystick, analog sensors, and digital sensors.

What do I need?

**LEARN TO CODE**

for **Pro / Lite**

**Rokit BRICK** is based on the way of Scratch's Drag & drop so that beginners can use it easily.

What do I need?

**PC SOFTWARE**

for **Pro / Lite**

You can do not only the flight practice through simulation but also control real drone, record the flight pattern, trim, and so on with **Drone Simulator** on PC.

What do I need?

**MOBILE APP**

for **Pro / Lite**

Use your smartphone application to control the drone, drive kit, and camera kit. (FPV : First-person view)

What do I need? Mobile (Smartphone)

## Check with the video

for Pro/Lite



CoDrone page  
[http://robolink.co.kr/sw\\_eng/codrone/01\\_codrone.html](http://robolink.co.kr/sw_eng/codrone/01_codrone.html)



Download (eng)  
[http://robolink.co.kr/download\\_eng.html](http://robolink.co.kr/download_eng.html)

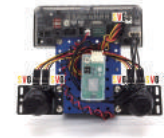
## Build it - Assemble only for Pro



1) Check if all components are prepared.



2) Assemble the controller with components.



3) Connect the board and cable while paying attention to cable's color.



4) Turn on the power of Inventor Board and CoDrone, and then pair each other.

- ▶ Refer to "Connect CoDrone to Inventor Board" on the next page.
- ▶ All the channel of DIP Switch is fine.



### for Pro / Lite

When CoDrone doesn't do hovering and keeps going up,

When CoDrone doesn't fly even though the propeller is turning,

When CoDrone's motor doesn't work,

When the propeller broke,

Check FAQ to solve the problems



FAQ <https://goo.gl/HG8nDE>



Controller assembly instruction

<https://goo.gl/CXrTgf>

## Connect CoDrone to Inventor Board

only for Pro

1. Turn on CoDrone's power.
2. Turn on Smart Inventor Board's power.
3. Wait for the connection.
4. LED lights on the Board move to the center and then stop.



5. CoDrone's LED stops blinking.
6. All pairing processes complete.

### Caution

If CoDrone unexpectedly powered off or pairing failed, repeat the procedures 1~5 above.

## Calibrate the drone

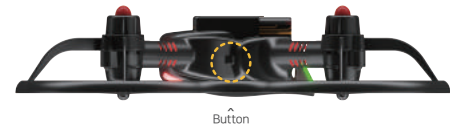
Required

- Adjusting the drone's sensor

for Pro / Lite

Calibration(sensor adjustment)

is **required after purchase and before the first flight.**



1. Flip over the drone and press the button on the left for 5 seconds.
2. When the light on the drone flashes, flip the drone over again so it is upright on the ground.
3. The drone corrects the sensor value while flying, and lands after the calibration.

\* Calibration : Correction of the drone's sensor value to fit the user's environment.

\* Check the battery before calibrating the drone.

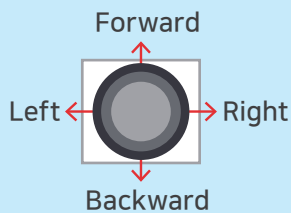
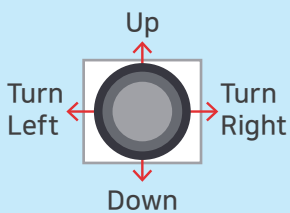
\* Demonstration and practice videos are on the [CoDrone YouTube channel](#) ▶

## Play it - Control

only for Pro

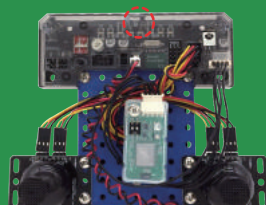
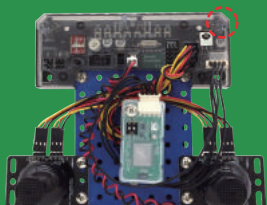


Control the drone with joystick



The rightmost sensor

The leftmost sensor



Landing

Emergency Stop

## CoDrone Warranty

# Quality Certificate

This certificate ensures protecting rights of consumers who bought CoDrone Package. Our company will provide paid/free service to our customers, as in the following details.

- 1. Warranty Details :** Robolink will conduct following guarantees, under the provision of Consumer Compensation Rules by Item. If manufactural defect or spontaneous failure occurs before the expiration of the term of guarantee, you are qualified to receive free services from us.
- 2. Term of Guarantee :** Up to 1 year since the purchase date (Each component in this package has different policies; read the Range of Assurance below)
- 3. Determination of Assurance :** Will be determined after consultations by telephone or online services, or by direct discussion in exhibitions.
- 4. Range of Assurance (Refer the table below)**

Component	Term of Guarantee	Guarantee Exclusions
CoDrone's Mainboard	1 year since the purchase	1. Simply because consumers'change of mind
Smart Inventor Board		2. Maintenance/Repair of devices after term of guarantee
Charger	2 months since the purchase	3. Failure or damage caused by customers' misuse or mistake
Battery		4. Failure not caused from the device itself
Propellers		5. Arbitrary dismantle or action taken by customers
Propeller's Guard	Not applied	6. Problems caused by products from other companies
Propeller Motors		

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