



instructables

## ESPcopter: Programmable Mini Drone



by MetehanE

Meet with modular mini-drone ESPcopter that can be programmable with blocky and Arduino.

ESPcopter has a lot of cool features like auto flight, hand control, blockly programming for stem education, anti-collision system, Arduino and Processing curriculum, altitude hold, etc.

ESPcopter live on crowdfunding and only 10 days left to get ESPcopter from crowdfunding.

Thanks Here is the link: <https://arikovani.com/en/projects/programlanabilir...>

Here is the espcopter project videos channel:

[//www.youtube.com/embed/fOLkR3hshLA](https://www.youtube.com/embed/fOLkR3hshLA)



## Step 1: What Are the Technical Specifications of ESPcopter?



260mAh Li-Po battery  
up to 6 minutes flight  
time



Around 35g and about  
90mm motor to motor



Full charge in 45 minutes  
with USB connection





ESP8266-12S  
32-bit 160MHz



IEEE 802.11 b/g/n  
Wi-Fi connection



3-axis Gyro,  
accelerometer &  
magnetometer

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## Step 2: Box

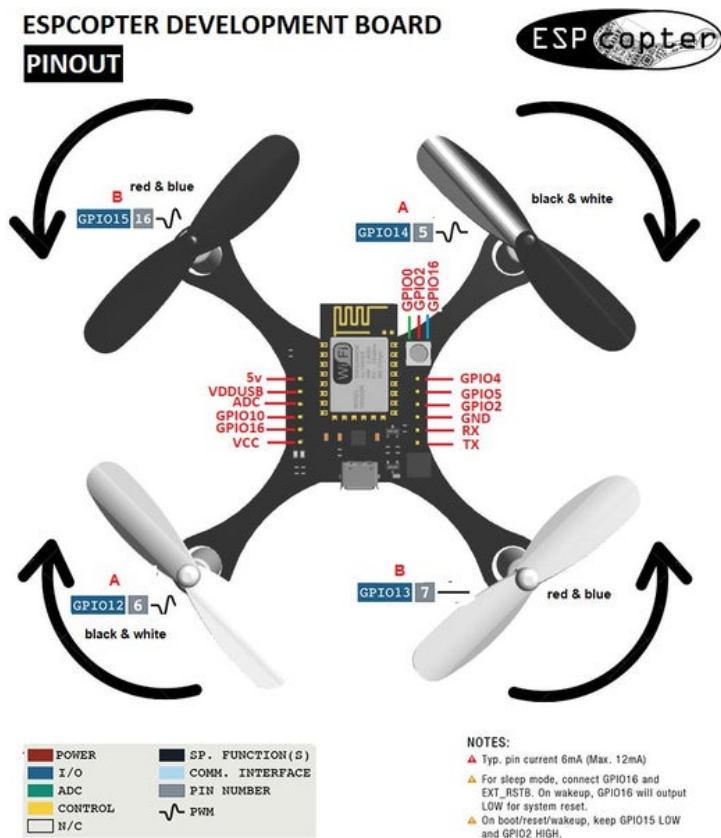


## Step 3: Drone Parts:

[//www.youtube.com/embed/pRIJ-SkrO2M](https://www.youtube.com/embed/pRIJ-SkrO2M)

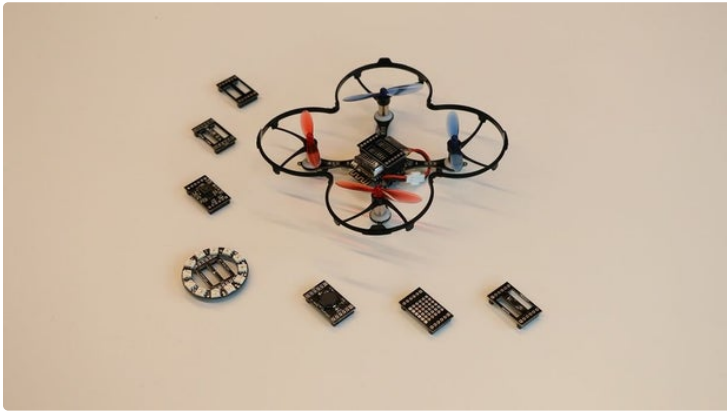


## Step 4: Pinout:



## Step 5: What Are Development Modules?

Thanks to its modular structure, you can add new features to ESPcopter By Using Sensor Shields

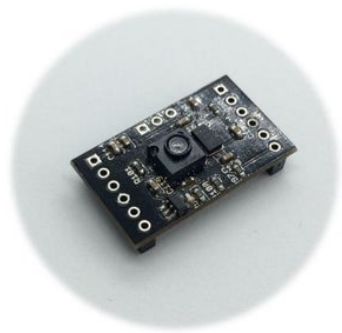


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### Step 6: ESPcopter Optical Flow Module:

The optical flow module measures the movement of the ESPcopter over the ground, allowing the drone to remain stable in the air and to perform autonomous tasks.

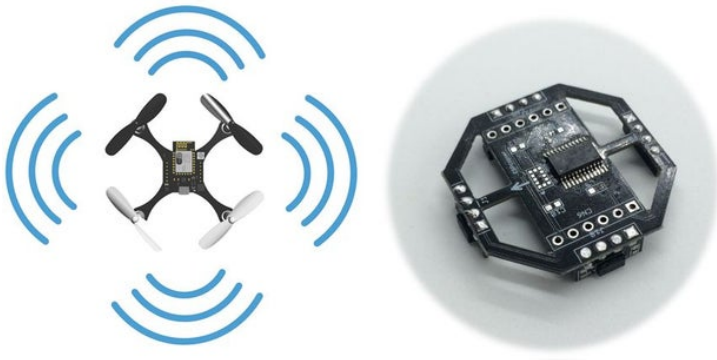
[//www.youtube.com/embed/qF6-xkCOxZk](https://www.youtube.com/embed/qF6-xkCOxZk)



## Step 7: ESPcopter Multi-Distance Module:

There are laser sensors on the multi-distance module with 1-meter detection distance facing forward, backward, right and left. With this module, you can do applications such as collision prevention, autonomous flight or hand control according to the distance to the walls.

[//www.youtube.com/embed/LB4Lqe8Wtn8](https://www.youtube.com/embed/LB4Lqe8Wtn8)



## Step 8: Other ESPcopter Modules:

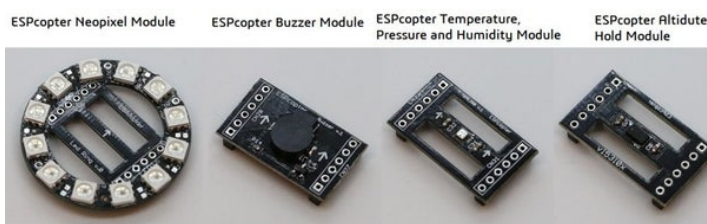
ESPcopter Neopixel Module

ESPcopter Buzzer Module:

ESPcopter Temperature Pressure and Humidity module














ESPcopter Altitude Hold Module

[//www.youtube.com/embed/QakQ3MTHiMc](https://www.youtube.com/embed/QakQ3MTHiMc)



## Step 9: How Can I Control ESPcopter?

[//www.youtube.com/embed/HVeFnZ49uzU](https://www.youtube.com/embed/HVeFnZ49uzU)

	Phone	Computer	Rc Remote
Device:			
Platform:	 Android	 Windows	 MacOS
Communication Method:	 Wi-fi	 Wi-fi	 Bluetooth
Control Method:	 touch	 Klavje	 Joystick
App:	 RemoteXY	 Processing	

## Step 10: Arduino Library



<https://www.instructabl...>

Download



## Step 11: Blockly Programming

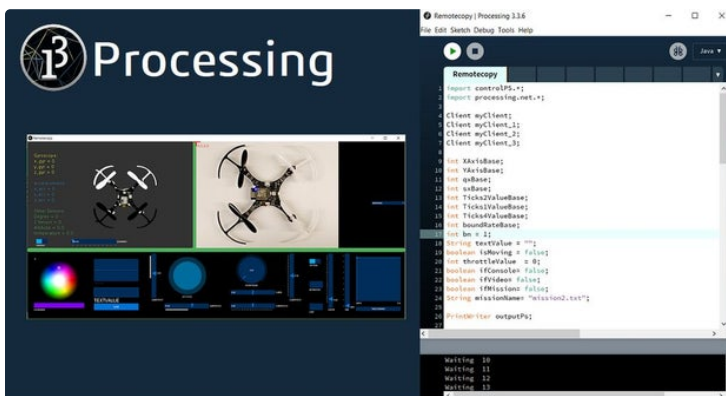
We developed a fully online blockly coding web site for students who are new to coding education.

You can access the Block Programming interface via this link: <http://espcopter.com/1513-2>

[//www.youtube.com/embed/GRLlyliUVoE](http://www.youtube.com/embed/GRLlyliUVoE)



## Step 12: Processing Control Software

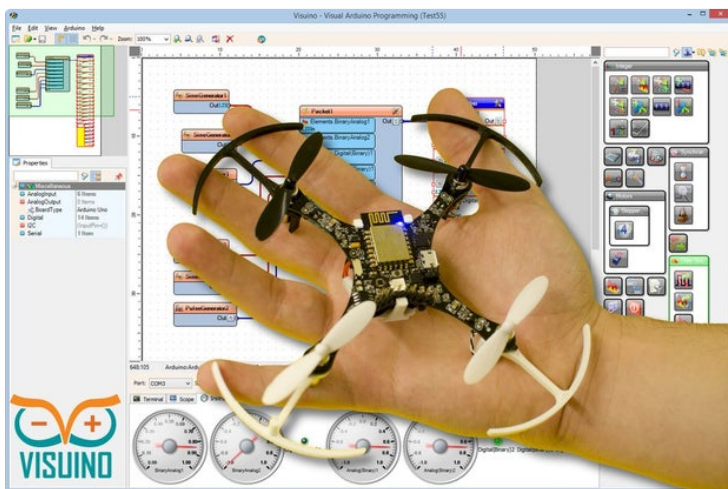


## Step 13: RemoteXY Support

[//www.youtube.com/embed/xB08KhSBeyw](https://www.youtube.com/embed/xB08KhSBeyw)



## Step 14: Visuino Support





## Step 15: Contact, Question and Community

Mail: [hello@espcopter.com](mailto:hello@espcopter.com)

Facebook: <https://www.facebook.com/espcopter/>

Have any questions? For more information, visit our community site at <http://espcopter.com/community/> or ask us in our Facebook group (Link below)!

Website: <http://espcopter.com/>

witter: <http://espcopter.com/>

Facebook Group: <https://www.facebook.com/groups/1055252907941836/>

Instagram: <https://www.instagram.com/espcopter/>

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