

## Why students should learn drone algorithms?

Drones are one of the fastest growing technologies recently. They are used in aerial photography, cartography, military, search and rescue. In future we will start using drones for more things such as cargo shipping and farming. Prominent part of drones are the flight control software which is burned in drones. If the software can be maintained well drones can pretty much fly in all weather conditions.



The algorithms which are used to stabilize drones are also used in spaceships rockets and unmanned aerial vehicles To clarify we can mention this example, rockets must fly balanced so that they can find their target. If they can't fly stabilized than its almost impossible for them to find the target.

If students get trained about drone software, they learn they can master themselves in drones, aerial and space technologies and also military.



# STEM

## Comparison:

	ESPcopter		
<b>Programmable</b>	✓	✓	✓
<b>Open Source Code</b>	✓	✗	✗
<b>Arduino</b>	✓	✗	✗
<b>Blockly Programming</b>	✓	✓	✓
<b>Developable</b>	✓	✗	✗
<b>Internet of Things(IoT)</b>	✓	✗	✗

You can visit our website to order online

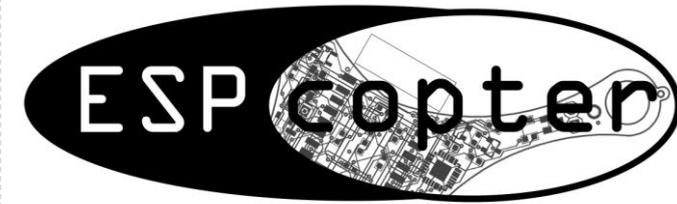
[www.store.espcopter.com](http://www.store.espcopter.com)

Our Kits	Price
ESPcopter Lite Training Kit (A+B)	
ESPcopter Pro Training Kit (A+B+C+D+E+F)	
ESPcopter 5 Lite (Teacher Pack: 5*(A+B))	
ESPcopter 10 lite (Teacher Pack: 10*(A+B))	
ESPcopter 5 Pro (Teacher Pack) 5*(A+B+C+D+E+F)	
ESPcopter 10 Pro (Teacher Pack) 10*(A+B+C+D+E+F)	

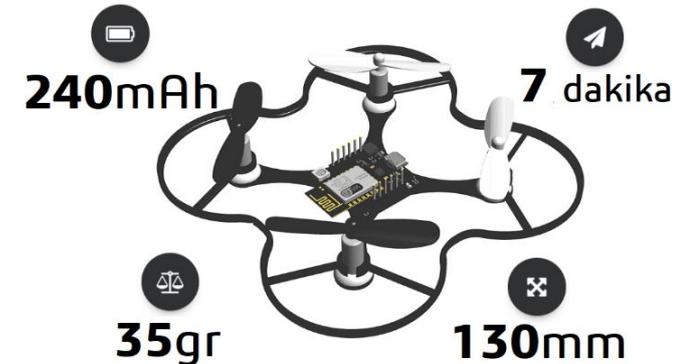
ESPcopter Box: A,

Optic flow Sensor: B, Multi-ranger: C, Buzzer: D,

Temperature,Pressureç,Humidity E, Neopixel Led: F,



## The Most Hackable And Affordable mini-drone ESPcopter.



ESPcopter it is unique small size mini-drone that is a wirelessly networkable, interactive and programmable drone.

- Learn programming from scratch. (beginning)
- Develop IoT projects
- Develop drone software for special objectives.
- Learn to fly a drone.

[www.espcopter.com](http://www.espcopter.com)

## How can I develop software with ESPcopter

- **Block Programming**

The block programming system that we developed for students who are new to programming works online from a website.



With the help of IoT Block programming system, students can code all around the world. They don't necessarily need to be near the drone.

- **Arduino**

Arduino is one of the recent and most popular microcontroller language. You can reach all the sensors with the help of the open source code library which we have developed for ESPcopter.

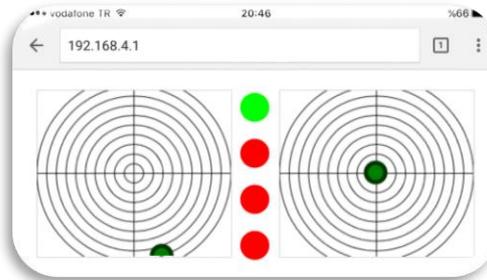


With the help of the commands in the library of ESPcopter, you can learn from scratch till advanced. Also you can assign a special task for the ESPcopter by coding.

## How can I control ESPcopter

- **With Website Browser**

Without needing to download a software you can remote control ESPcopter just with a device which can connect the WIFI.



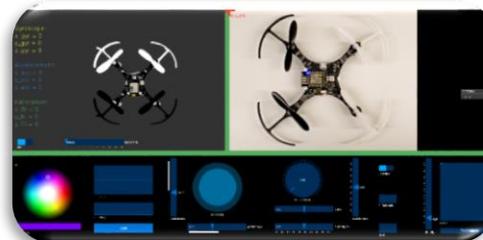
- **RemoteXY**

RemoteXY is a website which you can make your own remote controller application easily. You can also make several types of IoT applications

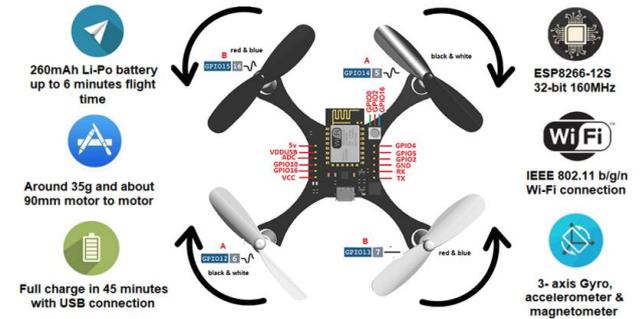


- **Computer Controlling Application(Processing)**

With the application which we developed with Processing language you can connect your ESPcopter to your computer and you can transfer data. Also you can connect your joystick, mouse, keyboard and control the drone via this application.



## Specifications of ESPcopter



## Development Modules

### Optic Flow Module:

Optic flow module understands the drones movement via processing the images of the ground. In this way drone can stay in the same location or it can move autonomously.



### Multi-Ranger Module

There are 4 laser sensors on drone. Those sensors can understand the distance up to 1 meter. With the help of this you can make anti collision system, hand control system, autonomous flight system etc.



## Other Modules

Temperature, Pressure, humidity



Neopixel Led



Buzzer

