



# Tuscarora

## Radio Controlled Flying Club

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**Title:** Preparation for Solo Flight

**Category:** Helicopter/Drone

**Tasks:** Obtaining Solo Flight Certification

### **Purpose:**

I am not trying to scare you off, I just want you to understand how important it's to get proper instruction. If you don't have access to a good RC heli instructor or an experienced flier, this is where I hope I can help you out.

I have both written instructions along with video demonstrations on all the day lesson plans for two methods of learning how to fly RC helicopters. I do however strongly recommend **reading & watching** to get as much information out of the lessons as possible.

Hopefully I can help you be on the other end of that 50%, the successful end. Please take the time to read, watch, and understand every part. Learning how to fly RC helicopters is a very methodical process that you can't rush, if you do, crashing is the usual outcome.

I should point out these lessons are geared towards people who are learning to fly single rotor collective pitch RC helicopters, not toy helicopters, micro coaxial RC helicopters, or quad/multi-rotor.

# RC Helicopter Information Overload



The reason that continues to put people off flying RC helis is information overload. The choices are also overwhelming, especially for the uninitiated. It's also fair to say that there's some junk out there though it's not always easy to spot. Price alone doesn't determine quality either. Some cheaper models can offer fantastic value, and there are costlier products that don't.

It's possible to find fantastic [RC copters](#) for every budget, skill level, and type. The radio control equipment for these birds has come a long way in recent years and is accessible to all. I include a few examples from each category so that you can see the types of models on offer.

## Fun, Rewarding, Addictive

Some pilots prefer to fly RC helicopters above all other craft. That's because they offer a far more exciting experience. The hobby provides fans with tremendous fun. It's also rewarding and addictive but in a good way. The downside is the learning curve for those who want to become skilled heli pilots. For others, learning is half the fun. And RC choppers at the beginner level are child's play.

RC helis are not like the popular drones that anyone can operate. They are for flying—not filming—enthusiasts. There are racing quadcopters, but that's also a different flight experience. RC planes continue to be popular, but they lack the short-range acrobatics and agility of model copters.

## About this 'Flying RC Helis' Guide

This guide is an overview primarily for first-time or inexperienced RC heli pilots. There's a section further down that outlines safe practices and steps for flying. I advise anyone to read this short introduction first, especially if this is all new to you. Don't worry—it's an easy read. There isn't any overly technical vocabulary or unnecessary jargon to climb over.

Use the examples I include on this page to test your newfound knowledge. Knowing what to look for, specifically, is the way to make better decisions. Buying and flying in ignorance, though, has users running for the hills before they even take off.

## Understating RC Heli Channels



This section looks at the basics of flying an RC helicopter. It's vital to understand channels or CH before anything else. So, what's it to be, 3CH, 4CH, or 6CH? Well, RC helicopters move in multiple directions. It's something referred to as three-dimensional or 3D flying. These maneuvers need channels, and the more there are, the more the bird can do.

A radio-controlled helicopter needs 4-channels for it to fly in all directions. These include altitude up/down; nose turn left/right; go forward/backward, and slide left/right.

## **Benefits of a 3 Channel RC Heli**

Beginner helicopters usually have 3 channels. A 3CH heli can't slide in left or right directions (the 4th channel). That makes them much more stable for novice pilots. The downside to 3CH RC helicopters is that they're so easy to fly they soon become boring. Even so, a 3CH model chopper is the perfect place to start for those with no previous flying experience.

A 3CH RC beginner helicopter has the following controls:

1. Throttle
2. Turning (Yaw)
3. Forward/backward movements (Elevator)

## **Benefits of a 4 Channel RC Heli**

A 4-channel helicopter is a natural progression from a 3CH model. It's when pilots get their first experience of flying an RC heli like a real pro. The extra channel gives the bird more freedom to move, and the craft becomes a more agile flier as a result.

A 4CH RC helicopter has the following flight controls:

1. Throttle
2. Turning (Yaw)
3. Forward/backward movement (Elevator)
4. Left/right movement (Aileron Slide)

## Benefits of a 6 Channel RC Heli



A 6CH RC heli is a full 4CH model plus two extra channels. The 6CH RC models are known as Collective Pitch (CP) helicopters. The two additional channels are at the receiver (Rx) end, not the transmitter (Tx), aka remote controller. Just know that collective-pitch 6CH helis are capable of advanced aerobatics. That means they're better suited to intermediate and advanced-level pilots.

A 6CH RC helicopter has the following flight controls:

1. Throttle
2. Turning (Yaw)
3. Forward/backward movement (Elevator)
4. Left/right movement (Aileron)
5. Collective pitch or CP (tilt of main rotor blades)
6. Turning the gyro and other adjustments

So, the natural progression for newbies to RC helicopters is 3CH, 4CH, and then 6+ channels. I won't get any more technical than that as this is primarily a beginner's guide to flying RC helis.

# The 3 Types of RC Helicopter

There are 3 types of RC helicopter. Sellers may also refer to these models as copters, whirlybirds, and choppers. These names are broadly interchangeable terms. We can put RC helis into these categories:

1. Coaxial RC helis (toy grade) | Beginner level
2. Fixed pitch RC helis | Advanced-beginner/intermediate/advanced
3. Collective Pitch (micro/large) RC helis | Intermediate/advanced

These machines all fly but not in the same way. It makes sense to start with the ones that have a gentle learning curve. The less time, commitment, and learning there is, the quicker new pilots progress. The opposite is true if you start with something too complex. Heli fans at the higher end also have mechanical and electronic skills as well as piloting expertise. That's nothing for now, though.

## #1 Toy Grade Coaxial RC Helis

These puppies are super-easy to fly. Their main attraction—at the novice level—is flight stability. The makers of coaxial copters aim them mostly at entry-level users. These models resemble true helicopters aside from their coax rotors. Coaxial rotors come in pairs, one mounted above the other on a concentric shaft. Having two sets of rotors is what gives them their flight stability.

Toy RC helicopters are the perfect models to start your whirlybird adventures—at any age. These choppers are inexpensive, require little to no maintenance, and are super-easy to fly. Most beginners soon tire of toy helis because of their simplicity, lack of agility, and infrared (IR) controllers. That's a good thing. At least you know it's time to move up to the next level when you tire of the toy model.

Note that the IR controllers and ultra-lightweight makes small helis suitable for indoor flying only. It's quite possible to find toy grade helicopters for under 10 dollars.

### Examples of toy-grade coaxial RC helicopters

Below are 3 examples of toy-grade 2-CH radio-controlled coaxial RC beginner helicopters.

### [Syma 3 Channel S107/S107G Mini Coaxial Indoor Toy-Grade R/C Helicopter](#)

Syma's 3CH mini heli is a tiny 7.5" palm-sized coaxial whirlybird for indoor-only use. It's super-easy to fly at the beginner level and has a built-in gyro which auto-stabilizes the craft. The toy has a sturdy metal frame and skis. The maximum playing time for the S107 is 10 minutes on a full battery. Charging takes approximately 30 minutes via USB or less with the AV adapter. Control range is 30 ft.

### [KOOWHEEL S810 3.5 Channel Mini Toy-Grade Coaxial Indoor RC Helicopter](#)

KOOWHEEL's S810 3.5 Channel Mini heli is an excellent choice for first-time users. The build uses impact-resistant ABS over an alloy body frame. The model also has a double protection system that defends it from crashes. You can expect around 8 minutes of flight time on a full battery. USB charging takes about 50 minutes or less. The control range is almost 50 ft. (15 M).

### [Sipring 901 2 Channel Coaxial Mini Toy-Grade R/C Helicopter](#)

The Sipring 90 is a good-looking mini coaxial RC heli and a great choice at the novice level. It can fly safely indoors and outdoors on windless days. The build uses a combination of metal parts and ABS plastic. The maximum playing time for the 901 is about 8 minutes on a full battery. Charging time takes only 30 minutes and the control range is 49 ft. (15 M).

## **#2 Fixed Pitch RC helis**

Pitch denotes the angle of a helicopter's blades. The angle of the main rotors is always the same with fixed pitch helis. They have curvy blades that push the air in a downwards direction to produce wind. They work in a similar way to a conventional cooling fan. The faster they spin, the more lift they generate. Fixed pitch models are ideal for beginners because the angle of the rotors is constant.

There are three types of fixed-pitch RC helicopters:

1. Flybar models
2. Flybarless (no fly bar)
3. Bell Rotor Head

Either type is similar in the way it performs, but the bell rotor head is the best option for newbies. That's because it's less agile and therefore offers novice pilots added stability.

## Examples of fixed pitch RC helicopters

Below are 3 examples of 4CH radio-controlled fixed-pitch RC helicopters.

### [Blade 70 S 4 channel RTF Ultra-Micro Flybarless Fixed Pitch 4CH RC helicopter](#)

The Blade 70 S is a [ready to fly \(RTF\)](#) ultra-micro fixed pitch rotor head heli with flybarless technology. Its tiny size and lightweight body make this bird a superb indoor training chopper. The build consists of a durable composite frame and carbon fiber tail boom. Blade's 70 model heli lasts for 5 minutes on a full battery and takes 30 minutes to charge. Spare batteries are available at a reasonable price.

### [WL V911 4 Channel Single Rotor Fixed Pitch Helicopter Version 2](#)

The WL V911 is a basic fixed-pitch 4CH RC helicopter. It's an excellent choice for advanced beginner to intermediate copter pilots. The plastic frame is not as robust as some models, but the bird does fly well and far. It has an impressive control range of up to 260+ ft. (80 M). You can expect 7 minutes on a full battery and a charging time of around 30 minutes. This model includes an extra battery.

### [Blade 120 S 6 Channel RTF Fixed-Pitch, Flybarless Rotor RC Helicopter](#)

The Blade 120 S is a fully-assembled fixed-pitch ready to fly (RTF) 6CH Flybarless helicopter. It's a sub-micro model which is bigger than the standard micro class. The heli has a durable construction and some carbon-fiber components. The flight time is just 5 minutes on a full battery, and charging takes around 45 minutes. Extra batteries cost roughly 10 dollars apiece.



## #3 Collective Pitch RC Helis

Collective pitch (CP) helis are advanced models that have flat blades, not curved. They can generate lift because the blades are movable as opposed to fixed. Therefore, it's the angle of attack (pitch) of the rotors that determines flight. So, the bird gains or loses altitude based on the pitch while the speed of its rotor blades remains constant. CP helis tend to come in mid to large sizes.

## #1 Pre-power heli checks

1. Get to know your controller (radio transmitter)
2. Check the helicopter's center of gravity (COG) pre-flight
3. Make sure the rotor blades are tightly fastened

*Points to note: These steps seem logical but can result in disaster if skipped. Radio controllers look simple, especially basic models. Despite that, take time to familiarize yourself with the unit. It should become a natural extension to your hands—something you operate on auto-pilot. Learn how to adjust the center of gravity if it's off. A small error in the COG can have a significant impact on the flight.*

## #2 Easy does it, but do it

Maiden helicopter flights can be exciting and scary at the same time, especially for newbies. That's why it's important to take your time and conduct a few pre-flight checks. Also, turn your model OFF for a few moments between each of these exercises. A short pause for thought is an excellent way to reinforce what you just did. You may want to keep a quick checklist by your side for reference.

Section #2 assumes you have covered section #1 and are ready to move on. Do not let the model leave the ground until you get to check #5.

1. Gently apply power to your RC helicopter without leaving the ground
2. Check and adjust the tracking of your RC heli blades if necessary
3. Check and adjust the helis cyclic trim if necessary
4. Get familiar with the controls as the heli hovers on its start position
5. Take the heli into the air once comfortable with point 4

*Points to note: Stop spooling at step #1 right before the copter wants to take off. Check the craft for a level reaction. That means no veering to either side. Listen to the engine or motor and stop it immediately if you notice unusual or sporadic sounds. NEVER add cyclic trim to a grounded heli. Slowly master hovering at different altitudes. Repeat the process for the right, left, and diagonal controls.*

## #3 Hone in on RC heli flying skills

The easy-does-it-but-do-it approach is the best way to go. You'll intuitively know when the time is right to fly with more confidence. Controlling an RC heli is similar for all models, but helis and transmitters do vary. That's why it's vital to take it slow and get comfortable with each new model—one step at a time. This section outlines 4 useful advanced heli flying routines to practice.

1. Master the figure of eight hover
2. Work on translational lifts
3. Learn the counterclockwise (CCW) circle
4. Get comfortable changing the heli's nose direction

## #4 Mind where you fly

The 3 points below can help you get the most out of your RC heli experience:

1. Get into the habit of doing last minute checks before you head out
2. Use heli training equipment if you're a novice or flying a new model
3. Pick a flying site with care

*Points to note: Know where you expect to fly your heli in advance. It should be a wide-open space that's void of buildings and other obstacles, especially big trees. It also needs to be an uncrowded space, and that includes people, animals, and vehicles. It sounds logical, but accidents happen because some irresponsible RC'ers don't follow safe practices.*

## The Conclusion

Radio-controlled helicopters offer a unique hovering and acrobatic flying experience. There's a friendly global community too. These are forums where like-minded pilots share tips, swap ideas, and encourage newbies. It only costs a few dollars to start at the basic level, but there's a warning. If you get the bug—and there's a real possibility you might—then the heli hobby may take over your life 😊

Happy flying

## How Long Will This Take?

The very first thing that you have to realize is ***you will not learn how to fly a single rotor collective pitch RC helicopter in one day.***

That is totally unrealistic and if you think that way, you are setting yourself up for disappointment.

Your number one main goal is to **bring your helicopter home in one piece** each time you go out.



*Heli Comes Home In One*

*Piece!*

This is very possible if you take small progressive steps.

While I have instructed others how to fly RC helicopters; rarely did any these people ever crash while learning to hover. **The fact is** if you [set up your RC helicopter correctly](#), learn from the ground up, and don't rush, you won't crash either.

I also never used a trainer cord / buddy box. Every person learned on his/her own radio with me standing beside them giving instructions and advice.

### **This is how I will teach you.**

That is the single biggest difference between learning how to fly an RC airplane, and learning how to fly an RC helicopter. When learning to fly an RC plane for example, ***you are committed to flight the first day out, the second your plane leaves the ground.*** This is where buddy box instruction pays huge dividends since your plane is now airborne and traveling at a fast rate of speed at a fairly high altitude.

**MEDIAVINE**

***RC helicopters are however very different in the way you learn to fly them.***

With an RC helicopter, you are not "committed" to flight like you are with a plane. It's totally up to you if & when want to leave the ground, how high off the ground you get, and how long you stay in the air.

This is where learning to fly a heli is actually easier and less stressful.

**Any time you are feeling the least bit uncomfortable, throttle/collective back and you are safely back on the ground.**



*Low Hover Training + Tame*

*Setup = Hard To Get Into Too Much Trouble!*

Hovering a helicopter is also very much a balancing act with constant and multiple stick corrections happening all the time. You can't learn that well from a buddy box. You'll learn much quicker and more successfully when you gradually "feel" your way into how the heli is behaving and reacting.

You first learn control movements while on the ground, and then progress to small incremental "hops", getting a feel for the "balancing act" while airborne. Eventually achieving a sustained & controlled hover at a very safe distance above the ground (no more than a foot or two).

**Crashing is all but impossible** if you take this "**ground up**" learning approach and have a tame learning to hover setup.

## **MEDIAVINE**

It takes people several days or even weeks to learn how to hover and progress into forward flight. This is how I have arranged your RC helicopter flying lessons – I have broken them down into a 10 day course.

Some day lessons will only take you minutes to master, most will take hours, and some could take days, weeks, or even months depending on your natural abilities and how much time you put into practicing. The more you practice, the quicker you'll learn - just like any other skill.

The number one thing to remember when learning how to fly RC helicopters is not to progress to the next day's lesson plan until you are 100% comfortable and confident with the step you are currently learning.

These day lessons shouldn't be taken too literally. As I mentioned, some people catch on fast; others take more time – progress at your own speed. **Do I need to say this one more time – don't rush!**

## **Needing Help With Your Collective Pitch Setup As You Learn To Fly?**



Collective Pitch

*Essentials Combo eBook Package Saves You 25% Off Individual Pricing.*

If you are self learning how to fly a collective pitch RC helicopter and need help with your setup to ensure everything is correct & tamed down for learning on; I offer this specific "[Collective Pitch Essentials](#)" eBook combo package at 25% off the regular eBook price

A quadcopter, or drone is a multirotor helicopter that is lifted and propelled by four rotors. Quadcopters are classified as rotorcraft, as opposed to fixed-wing aircraft, because their lift is generated by a set of rotors (vertically oriented propellers).

Flying radio-controlled multi-wing aircraft is one of today's fastest growing and most exciting technologies that finds its way into our daily lives ranging from commercial business, media coverage to search/rescue/recovery teams to sport and a recreational flying. It involves many discipline skills while incorporating and embracing the STEM system of education (Science-Technology-Engineering-Math).

Before purchasing any equipment, the beginner should become involved with other modelers, visiting a flying site, become acquainted with experienced modelers or join a club. Any new modeler begins with an investment, care must be taken in equipment purchase whether new or quality used.



# HOW TO FLY A DRONE

## PART 1: UNDERSTANDING BASIC TRANSMITTER ANATOMY

If you're going to learn how to fly a drone safely and precisely, then you first need to understand the basic functionalities of a quadcopter's transmitter. The transmitter is the hand-held controller that you'll use to pilot your quadcopter. With a few exceptions, all transmitters come with two joysticks – a right and a left. By adjusting these sticks, you can send your drone in a specific direction.

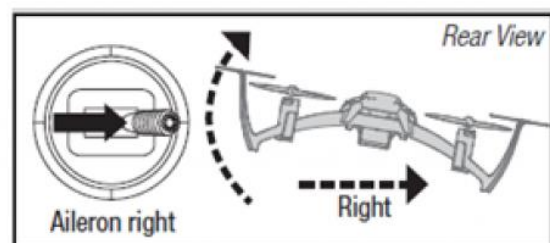
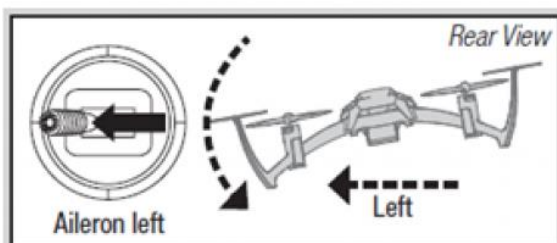
### MOST USED FLYING MODES



**RIGHT STICK** The right joystick controls “Roll” and “Pitch”. In other words, it allows you to fly your drone forwards & backwards, as well as left & right. Before you learn how to fly a drone, let's take a look at these two functions a little more in-depth.

### Roll

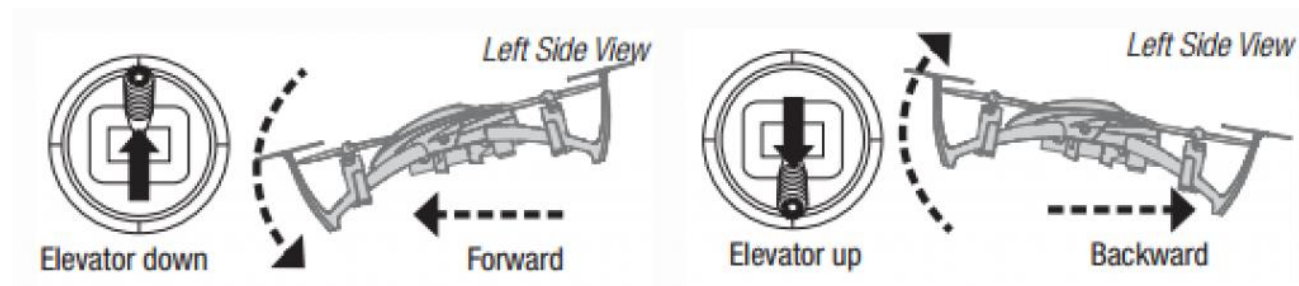
**Roll controls the right & left movements of your RC quadcopter.** Below you'll find an example of a quadcopter rolling to the right and left. If you look closely, you'll notice that when the quadcopter rolls to the left, the two left propellers dip towards the ground (while the right ones move towards the sky).



The opposite happens when rolling to the right. When learning how to fly a drone, you need to pay exceptionally close attention to your rolls. Swinging to far to the right or left could send you flying towards a house, tree, or other object that could potentially damage your drone!

## Pitch

**Pitch controls the forward & backward movement of your RC quadcopter.** And it's something you must master when learning how to fly a drone. Similar to rolling, when you pitch forward, the two front propellers are going to dip towards the ground while the two rear propellers raise towards the sky (the opposite is true when pitching backwards).

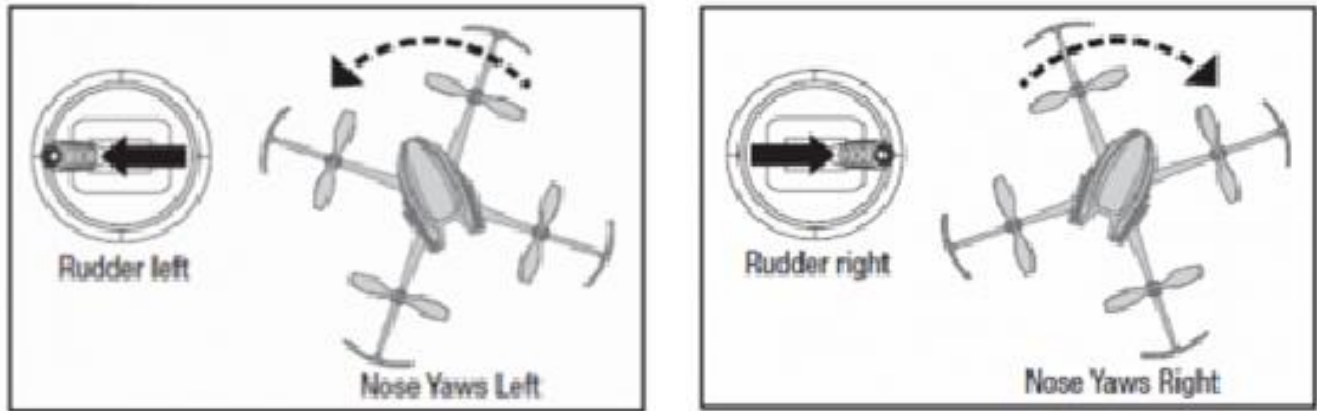


As long as the front of the drone is facing the same direction you are, the pitch controls are relatively straightforward: just move the right joystick up or down to move forwards or backwards. However, it becomes trickier when your orientation with the drone is "off". In this case, the drone might not go directly forwards or directly backwards – it might go off at an angle instead.

## LEFT STICK

The left joystick controls “Yaw” and “Throttle”. In other words, it allows you to fly your drone at a specific height, as well as rotate your drone along its central axis. Before we go on to talk about how to fly a drone, let’s look at yaw and throttle a little more closely.

### Yaw



### Yaw controls the clockwise & counterclockwise rotation of your RC

**quadcopter.** Imagine a disc-shaped UFO rotating in a clockwise direction – that’s yaw. Since yaw is controlled by the same joystick as the throttle, beginner flyers often have difficulty controlling them both simultaneously. Fortunately, with enough practice, I’m confident you’ll master it in no time.

Controlling yaw is relatively straightforward: by moving the **left** joystick to the **right**, you cause the drone to fly in a *clockwise direction*. Likewise, by moving the **right** joystick to the **left**, you force the drone to fly in a *counterclockwise direction*. On paper, understanding yaw is easy, however, it becomes much trickier to understand when you’re actually flying!

Nano drones like the [Cheerson CX-10](#) and the [FQ777-124 Pocket Drone](#) have pretty quick “yaw rates”. Basically, this means that these drones can move in a clockwise/counterclockwise rotation faster than the average nano quadcopter.

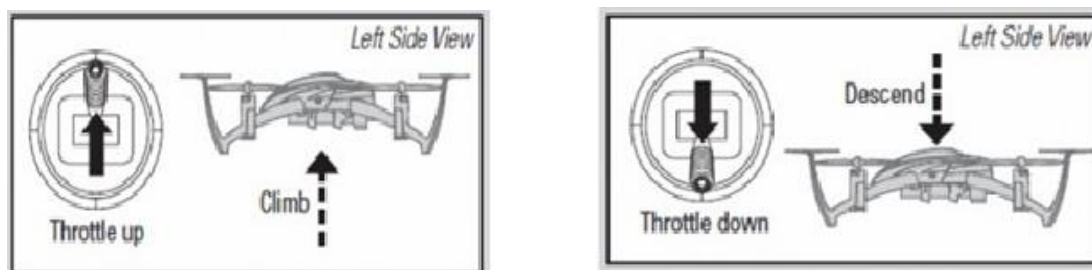


## Throttle

**Throttle is what transfers power to the propellers and forces them to spin.**

As the propellers spin at a higher and higher rate, it creates a down flow of air that eventually lifts the quadcopter off of the ground. Throttle is the only control that you'll have constantly engaged when flying. It is also good to note here that a slight bit of throttle is usually needed when rolling or pitching your drone due to the change in airflow and decreased vertical lift.

For this reason, it's important that you become comfortable with fine tuning your drone's throttle so that you can achieve your desired hovering position. Pushing the left joystick forward brings more power to the propellers, causing the drone to lift higher off the ground. Likewise, bringing the left joystick to its original resting position will cut off all power to the propellers and subsequently cause your drone to stop flying.



## HOW TO FLY A DRONE

### PART 2: HOW TO TAKEOFF WITH YOUR QUADCOPTER

When learning how to fly a drone, one of the first things you need to master is the takeoff. After all, you can't much with your drone stuck on the ground!

**Note:** Start from a relatively level surface and make sure any grass is away from the propellers. If, as you begin to takeoff, your drone starts to drift, DON'T use the right joystick to adjust it. Just stop, reposition the drone where you originally started, and repeat the exercise. The point of this exercise is to get you familiar with the drone's throttle, and ONLY the drone's throttle. Don't worry- in later sections, you'll have plenty of time to blend it all together. Here are a few simple steps that you can follow to perform when learning how to fly a drone and taking off:

1. **Locate the Throttle:** For this exercise, you'll only be using the throttle (or left joystick). Remember that the throttle is what gives power to the propellers thus, allowing the drone to takeoff. For the time being, ignore all other joysticks, buttons, and switches on your transmitter.
2. **Set Your Drone Down on a Flat Surface:** Place your quadcopter on an even surface approximately five feet in front of you. Make sure you have *plenty* of space available (you don't want to accidentally hit anything). Also, if you're flying outside, weather conditions should be suitable for flight. (Preferably Calm Winds)

3. **Bind Your Transmitter to Your Drone:** Nearly all RC drones require that you “bind” your transmitter to the quadcopter prior to takeoff. This is usually done by powering on your transmitter and drone, followed by moving the left joystick up then down. At this point, you’re ready to fly. Some also may require both joysticks to be pushed inward and down at the same time to start the motor
4. **Slowly Push The Throttle Stick Up:** Start at the 10% throttle and slowly work your way up. The goal, at least in the beginning, should be to get your drone a few inches off the ground, and then go back down. Repeat this several times until you’ve become comfortable with the throttle sensitivity for your drone.

**Note:** If, as you begin to takeoff, your drone starts to drift, DON’T use the right joystick to adjust it. Just stop, reposition the drone where you originally started, and repeat the exercise. The point of this exercise is to get you familiar with the drone’s throttle, and ONLY the drone’s throttle. Don’t worry- in later sections, you’ll have plenty of time to blend it all together.

In the next section, you’re going to learn how to hover with your drone.

## HOW TO FLY A DRONE

### PART 3: HOW TO HOVER WITH YOUR QUADCOPTER

The term “Hover” refers to a drone’s ability to remain in a fixed position mid-air. As a beginner, achieving a steady hover will be a challenge. Fortunately, with enough practice, you’ll have it mastered in no time!

#### HOVERING EXERCISE

**Task: To learn how to fly a drone, hover it successfully and perform the following exercise**

1. **Use The Throttle to Get Airborne:** Try to get at least 24 inches off the ground. Once there, look down at your transmitter’s LCD display and take note of your current throttle position (10%, 30%, etc.).
2. **Make Fine Adjustments With The Right Joystick:** Don’t maneuver your drone away from its hovering spot. The point of the right joystick is to make fine adjustments and I do mean fine adjustments to keep it where it currently is. Challenge yourself and see if you can hover for a minimum of 10 seconds.
3. **Slowly Cut the Throttle to Land:** When you’re ready to land, slowly lower the left joystick (throttle) until you’re back on the ground. It’s very important that, when learning how to fly a drone, you focus on landing *slowly*. Do not just chop (close) the throttle.

Repeat this exercise as many times as it takes for you to become comfortable with maintaining a 2 minute hover. The key is to focus on achieving the same throttle position each time (10%, 30%, etc.) while using the right joystick *only* for making very fine adjustments to maintain your current position.

## HOW TO FLY A DRONE

### PART 4: HOW TO FLY FORWARDS/BACKWARDS & RIGHT/LEFT

Once you've become comfortable with taking off, hovering, and landing, it's time to graduate to a more complicated step – maneuvering your drone in a specific direction (don't worry, it's not *that* difficult). When learning how to fly a drone, you're going to use the **right joystick** to control all left, right, forward, and backward movements. Here are a few simple steps that you can follow to learn how to fly a drone in the direction of your choosing:

1. **Bring Your Quadcopter to a Steady Hover:** Maintain an eye-level hover about five feet in front of you (don't get too close to the drone).
2. **Fly Forwards:** Gently push **forward** on the **right** joystick. The quadcopter should automatically start to fly in a forward direction. Throughout this time, make sure that you're keeping an eye on the throttle. The goal should be to maintain a steady throttle position while you maneuver your drone in a specific direction. After flying forwards for a few feet, let go out of the right joystick. The drone will drift to a stop.
3. **Fly Backwards:** Gently pull backward on the right joystick. The quadcopter should automatically begin to fly *towards* you. Similar to before, fly backwards for a few feet and then release the joystick (while maintain your current height). Do this 6 times to become comfortable with how it starts and stops moving.
4. **Fly Side-to-Side:** By this point, it's pretty self-explanatory: move the right joystick **right** to fly right, and move it to the **left** to fly left. At this point in your learning curve, don't fly more than a few feet away from your original hovering position. Again, do this 6 times to become comfortable with how it starts, stops and drifts.

The key with this exercise is to always be aware of your height. The hardest challenge for when I was first learning how to fly a drone was controlling my height as I moved in a specific direction. Above all, it takes practice, so don't feel discouraged if you don't get it right the first time around.

#### “Help! What if My Drone Rotates?!”

Remember that the left joystick controls yaw, or rotation. If your drone starts to rotate in a clockwise direction, then gently push the *left joystick* to the *left* to induce a counterclockwise rotation. This will bring the drone back to its original hovering position. This is an incredibly important tip to remember as you learn how to fly a drone.

# HOW TO FLY A DRONE

## PART 5: WHEN YOUR DRONE IS FACING YOU

Things can get a little tricky when you're learning how to fly a drone and it's facing you. Why? Because all of the controls will be reversed:

- Pushing the right joystick in a forward direction will cause your drone to fly toward you (rather than forward like it normally would).
- Pushing the left joystick to the right will cause your drone to rotate in a counterclockwise direction (rather than clockwise like it normally would).
- Pushing the right joystick to the left will cause your drone to fly to the right (rather than left like it normally would).

**Note:** You get the picture. Basically, it's all going to be backwards, and most of all, CONFUSING. After becoming comfortable with moving around in a forward position, do the same steps as above but with the nose facing you. Just remember to stay close to the ground. If you get confused or scared just bring down the throttle and land. The best advice here is to practice learning how to fly a drone as much as possible.

The guide will provide you the skill's and mindset needed to learn how to fly a drone for the first time. Flying multirotors has become a great part-time activity for many enthusiasts in this field. However, if you're a beginner, it may be hard to get into the whole thing from scratch. There are many aspects in play when starting out to control this kind of device, especially from beginner's perspective.

To learn how to fly a drone properly, you'll have to understand some flying jargon. Of course, you can go by trial and error to get to fly an rc drone but do remember, every crash is an opportunity for your quad to be damaged. Also the more you wish to advance your hobby, the more you will require some background knowledge about flight.

With drone restrictions changing every few months, and federal rules and regulations becoming an increasingly unavoidable issue, anyone who's just getting into the [camera drone](#) hobby is going to need an above-average pilot school. Learning how to fly a drone itself is one thing, but the last thing you want is to not know the exact fly zones or other protocol in your area and incur a fine or other legal trouble. Drone Pilot Ground School is an excellent at-home training course for UAV pilots that want to pass the FAA Aeronautics Test and become certified in their area.

Everyone goes through different struggles when piloting a quadcopter for the first time. Multirotor flying definitely has a learning curve.

So if you're having trouble flying your quad, you're just getting started, or you're looking to hone your skills — don't worry.

You're in the right place.

**No matter your quadcopter model**, this guide will help you prepare for your first flight, stay safe, get airborne, and learn some basic and advanced quadcopter flying techniques.

Our goal is to give you a guide that will take out all of the guess work – from going through a pre-flight checklist, learning the controls, controlling your quadcopter's flight pattern, and even **some advanced techniques**.

There are a few last steps you must take before you can take off flying your drone. These are more universal as they pertain specifically to launching; however, each task may be slightly different from drone to drone. So refer to your user's manual when in doubt. When you're getting ready to launch your drone, your attention must be solely on the task at hand. If you have other distractions, you must put them aside so that you don't injure yourself, and then follow these steps:

tuscarorarcflyingclub.com



**70 Foothill Street,  
Barnesville, Pennsylvania 18214**

Contact info.  
Ed pollack  
96 marcella road  
Mary- pa.

Resources

1. How to Fly an Aerial Drone (By David A. Cox)
2. How to Fly a Quadcopter – Part 1 (By MyFirstDrone)
3. Quadcopter Drone Flying Lessons (By Quadcopter 101)