

Introduction

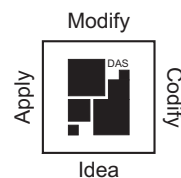


Congratulations on choosing Park Flying 1-2-3D to accelerate your radio control flying success! Whether you are the type of person who seeks the thrill of taking off and maneuvering your airplane back to its intended landing spot with control and confidence, or the satisfaction that comes from continuing to learn new skills, or simply wish to fly for fun, or all of the above, learning the correct flying techniques opens the door to a variety of different flying styles to satisfy every level of interest. Together with the convenience of electric power and the sheer number and diversity of ARF (almost-ready-to-fly) airplanes to choose from, there has never been a better or more exciting time to fly R/C!

The information and techniques presented in this flight manual were codified during the training of more than 1000 beginning and aerobatic pilots at 1st U.S. R/C Flight School, and are common to all R/C flyers who fly and learn with the greatest control and ease. That is to say, all those who learn to manage their priorities and know what to expect when they fly.

Flying R/C is a lot like learning to drive a car. Neither is very difficult when done correctly. Much of one's success learning to drive is due to understanding the rules-of-the-road beforehand. Specific objectives are assigned to each lesson, and the overlying emphasis is to maintain control of the car and keep it on the road—not to get better at fixing mistakes and recovering after it has gone out of control!

Similarly, the R/C pilot who emphasizes planning (anticipates) and control (telling the airplane what to do) limits his or her mistakes and is therefore far more successful than those who attempt to learn through trial-and-error and merely reacting to what the plane does. Consider that when you apply your control inputs correctly in the first place, the need for additional corrections will be less, and thus the more time you will have to think about what you want to do next and learning new skills.





About the Manual

Since there are already a number of good sources for information on electric motors, batteries, etc., Park Flying 1-2-3D is primarily a “how to” manual on the essentials of flying. To make the information easier to locate during your training, each page is designed to stand on its own and features a summary Key Point To Remember (KPTR) at the bottom to aid retention.

Section 1 (Ground School & Learning to Fly) covers terminology and describes the flying techniques required to perform the three major phases of solo flight: Takeoff, turning and maneuvering, and landing—concluding with a few mild aerobatic maneuvers suitable for simple electric airplanes.

Section 2 (Basic Aerobatics) describes the essential control techniques required to perform various loops and rolls. Refinements are added, and then components of the loop and roll are assembled and rearranged to accomplish several exciting new aerobatic maneuvers.

Section 3D details the control setup methodologies required for 3D “stunt” flying, along with the intricate flying techniques required to perform a variety of 3D maneuvers, while bringing to the forefront the critical solutions to overcome the trickiest aspects of 3D flying in half the time.

Note: Section 1 introduces important terminology that sets the stage for later aerobatic references. Therefore, even those using this book for aerobatic training should start with Section 1.

For glow and gas power enthusiasts and those who wish to fly in wind, the “complete” flight training programs developed during 1st U.S. R/C Flight School’s weekly courses take a more detailed look at the refined flying techniques and thought processes used by the top 10% of R/C pilots who make flying look easy. (See back of the book for details)



Other R/C information sources:

www.horizonhobby.com

www.rcuniverse.com

www.flyinggiants.com

Academy of Model Aeronautics (www.modelaircraft.org)

Local R/C Flying Clubs

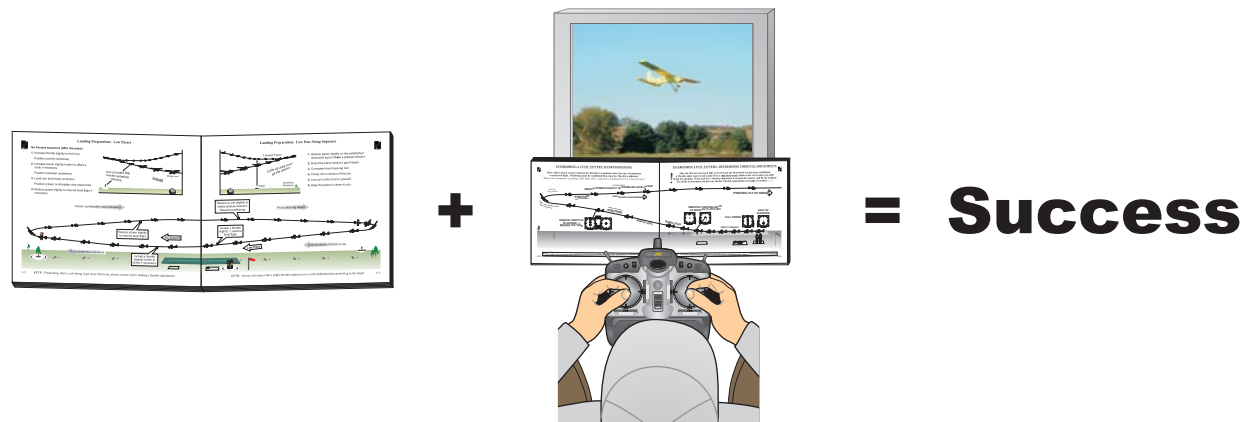
Product Manuals

Simulator Practice

It is vitally important before practicing any new maneuver that you acquire the correct understanding of the technique for flying it. Otherwise, incorrect practice may develop bad habits that can become difficult to change. As many pilots discover when their skills plateau after only a few short years, just because a person can fly, it does not mean that he or she is flying correctly.

Combining study of this manual with simulator practice is an excellent way to reinforce good control skills and build confidence leading up to actual flying. Therefore, **simulator practice is strongly encouraged**. But remember, to avoid developing bad-habits, your simulator practice needs to be structured. In case anyone thinks that will take the fun out of it, flyers who are flying well and making progress ALWAYS have more fun than those who are merely burning time!

(Side note: The most common bad-habits developed during random simulator practice are taking fingers off of the control sticks and making jerky-sloppy inputs. For example, a person might accidentally apply a little down elevator with right aileron when he meant to only apply right aileron, or apply a little right aileron with up elevator when he meant to only pull up elevator—and not give it much thought because it’s just a simulation.)

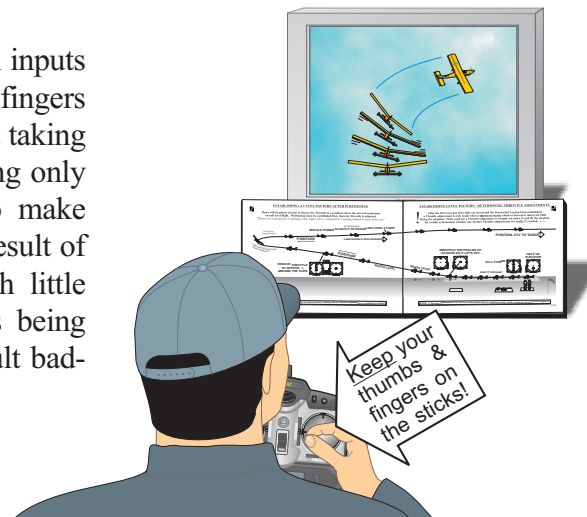
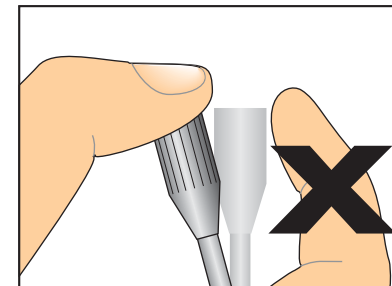
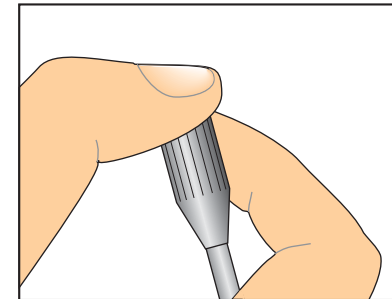
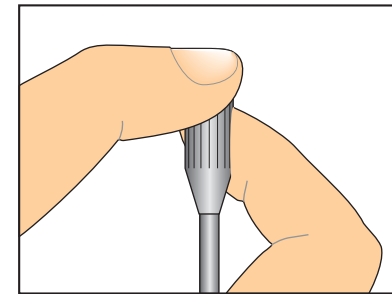
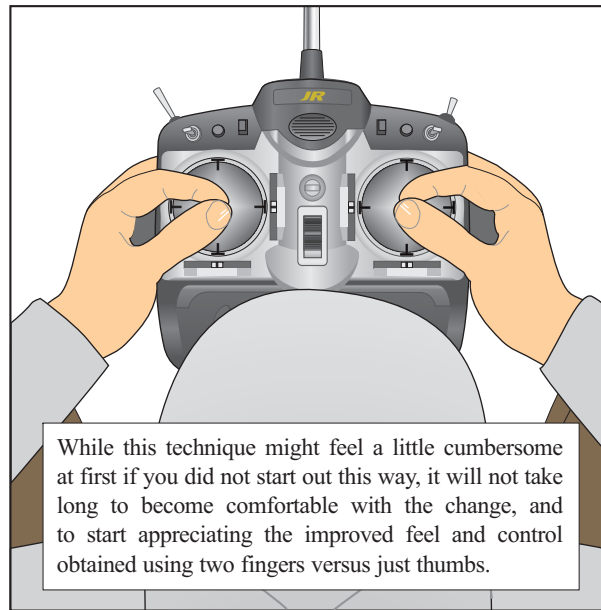


Applying Control Inputs with Precision and Control

To help you make smoother and more consistent control inputs and limit over-controlling, place your thumbs on top of the control sticks and the tips of your index fingers on the side of the sticks near your thumbs for added support.

When it's an option, it is also recommended that you increase the stick tension in your transmitter as high as possible to improve your *feel* (feedback) for the kinds of control inputs you make and the neutral stick position, and to reduce over-controlling.

Note: Smooth and consistent control inputs are only possible if you keep your fingers on the control sticks! Guard against taking your fingers off of the sticks or using only your unsupported jerky thumbs to make inputs. This bad habit is often the result of casual practice on a simulator with little concern for how the transmitter is being handled, and is an especially difficult bad-habit to break once developed!



Note: The mind interprets letting go of the sticks completely as “pausing” the action to buy more time to think, but the jerky inputs that follow actually end up requiring a pilot to work harder to overcome! Therefore, one has to be conscious of not succumbing to letting go of the control sticks, especially early when habits are being formed!

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Utilize the Check boxes to keep track of your progress and current areas of practice.



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