



# The FLYER

*Devoted to the Building and Flying of Radio Controlled Aircraft*

Vol. 2024, Issue 3

The Monthly Newsletter of the Livermore Flying Electrons RC Club

March 2024

## Everyone is Welcome to LFE Meetings!

LFE club meetings are held at 11am on the first Saturday of each month at the LFE field.

### 2024 LFE Board of Directors

#### Group A (2023/2024 term):

Lenny Farin (650)766-4864  
Julius Bertolucci (925)373-1687  
Jay Raimondi (510)459-5185  
Lou Rodriguez (925)640-3496  
Jeff Hollfelder (415)559-5156

#### Group B (2024/2025 term):

Tom Bilotti (510)207-6076  
Jerry Crans (510)504-0744  
Ed Becker (925)518-0674  
Billy Truelove (925)895-7554

## Newsletter Editor and Web Master: Edward Becker

Email: [Newsletter@lferc.com](mailto:Newsletter@lferc.com)

**Newsletter Deadline:** Any information to be included in The Flyer should be submitted to the email listed above no later than the 25<sup>th</sup> of the month for inclusion in the next newsletter. All submissions should be in plain text or Microsoft Word format in 12-point Arial. Permission is hereby granted to reproduce any part of "The Flyer" provided source credit is given.

## Club Information:

Real-time weather and field cameras – [www.lferc.com](http://www.lferc.com) and select "Weather & Cameras"

Board of Directors: [directors@lferc.com](mailto:directors@lferc.com)

### Mailing Address:

Livermore Flying Electrons RC Club, Inc.  
P.O. Box 2182  
Livermore, Ca. 94551

### 2024 LFE Club Officers & Flight Instructors

|                                 |                     |
|---------------------------------|---------------------|
| President                       | Lenny Farin         |
| Vice President                  | Julius Bertolucci   |
| Treasurer                       | Tom Bilotti         |
| Secretary                       | Gerry Crans         |
| Membership Chairman             | Lou Rodriguez       |
| Safety Officer                  | Brian Dethier       |
| Field Maintenance Chairman      | Tom Bennett         |
| Quartermaster                   | Jay Raimondi        |
| Flight Instruction Coordinator  | Jeff Hollfelder     |
| Flight Instructors (Fixed Wing) | Tom Bennett         |
|                                 | Chris Orsini        |
|                                 | Eric Schellenberger |

**From The Editor**  
*By Ed Becker*  
LFE Newsletter Editor



Greetings LFE club members! We've received a lot of rain recently and had to reschedule some meetings, so be on the lookout for emails for Lenny. You can also check the Website for meeting dates.

The club has started scheduling events for the year. The first event is a Spring Swap Meet on Saturday, April 13<sup>th</sup>. Come out and peruse the many items for sale, you might find something that you need! Here is a link to the flyer→<http://www.lferc.com/downloads/2024SwapMeet.pdf>

The club's annual warbird event is scheduled for Friday and Saturday, August 16<sup>th</sup> & 17<sup>th</sup>. The event has been expanded to two days to allow pilots to arrive, set up, and fly on Friday, and be ready for Saturday. We understand that Fridays are regular fly days for many members, so members will be allowed to fly any type of model up until around 1pm, and then we will switch over to warbird models. We will also be combining the warbird event with a Night Fly event on Friday night, so come out and join us, it should be a lot of fun! Here is a link to the flyer→<http://www.lferc.com/downloads/WOL2024.pdf>

The club is also working on other events, such as possibly a pilon racing event. If you would like the club to host a particular type of event,

please share your ideas at a club meeting or send an email to the Directors at [directors@lferc.com](mailto:directors@lferc.com)

See you at the field and at the next meeting!

-Ed Becker

**LFE Hot Items**

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**Bulletins and Reminders**

By: Lou Rodriguez

**Field Conditions**

Rainy weather makes for muddy conditions. There is one set of rubber boots in the shed just in case an off-runway excursion is needed.



Ground squirrels or gophers have taken advantage of the soft ground. Be careful where you step.

**Awareness**

Situational awareness is a critical element when flying. Take a look along the flight line to see who is flying before you taxi onto the runway. Pilots who have called "Landing" have the right of way.

Awareness also includes flying the prevailing traffic pattern with the rest of the group. Do not fly counter to the traffic pattern.

**Spotters**

A "Spotter" should act as your copilot. It is mandatory to have a spotter when flying FPV under the goggles. It is highly recommended that you utilize a spotter/copilot when:

- Others are flying FPV.
- Trimming a new airplane.
- Several pilots are flying at the same time.

A spotter can also help when your aircraft experiences an "off-field" landing. Determine

the direction and approximate distance before beginning the retrieval search.

**Rules and Regulations**

Applying common sense to your field activities should keep everyone safe and happy. Detailed information is available in the ***LFE Member Handbook*** within the "Club Info" tab of our website.

**Regulations** are placed upon us by **AMA, FAA, and FCC**. You are expected to comply without direct LFE oversight.

**LFE Activities 2024**

A variety of activities are on tap for this year. Check the LFERC.com website on a regular basis to see the Event schedule. All LFE members are invited to participate.

**FRIA**

The LFE flying field is an FAA-Recognized Identification Area (FRIA). RC aircraft can be flown without Remote ID equipment. The pilot and the drone (aircraft) must remain within the FRIA boundaries at all times.

**Have fun!** But do it safely.



## Learning to torque roll a mini-lesson

by Mike McConville

You've seen those super-low hovers and torque rolls in demonstrations and in model magazines and you've probably wondered just how they are done.

Super human flying ability? Hi-tech gyro gismos and big, expensive models? Certainly, you say, torque rolls can't be in the flight plan of a sport modeler who likes to fly normal sport models can they? Well, actually, they can.

It takes practice and an airplane

It'll take practice, of course, and plenty of it. But saying just practice is like saying if you want to paint like Picasso, just start painting. The major stumbling block for most pilots is knowing what to practice.

And then there's the airplane. What kind of model do you need? Maybe you're a sport modeler and don't want an expensive Tournament of Champions model—if that's what it takes.

How they are done

Relax, because besides lots of practice and a good airplane, learning to torque roll takes one more thing: a plan. And we've got it right here. So read on and I'll let you in on how the pros became pros. It's still going to take practice, but here's what to practice and what to practice with.

The right airplane

No, it doesn't take an expensive TOC model. It doesn't even take a scale aerobatic airplane. It does take a model with some specific qualities though, but you can find these qualities in some fun, economical sport models.

The aircraft has to have plenty of elevator and rudder authority. This is important since, while in a hover, you need to be able to maintain pitch and yaw control with the only airflow over the

tail coming from the propeller.

Great power-to-weight ratio is a big help, too. While learning—and even if you are a torque roll master—at times you will need to get out in a hurry. The safest direction to get out is naturally the opposite direction of our nemesis, the ground. To hang on the propeller and to blast out vertically, you need great, reliable power.

One of the best models I have seen for this task is the Hangar 9 Ultra Stick powered with the awesome Saito 1.80. The Ultra Stick is perfect. It was designed for all out fun aerobatics, so it has the elevator and rudder power needed to keep it under control while hanging on the propeller.

The Saito 1.80 is all the power the Ultra Stick will ever need, and then some. It'll get you out of trouble as fast as a rocket. Not to mention the all-out fun you'll have flying your Ultra Stick with all of its tricks and its punch.

For unbelievable vertical performance with your Saito 1.80 powered Ultra Stick, try using 30% high-performance helicopter fuel and an APC 16 x 8 propeller. Up to 30% nitro in your Saito is fine as long as the oil content is high enough. Helicopter fuel is recommended because it has the oil to keep the engine cool.

Learning torque rolls lower to the ground is much easier because you can see better and make corrections faster—but one mistake and it's that old nemesis again. CRUNCH! The Catch-22 of torque rolling is that practicing up high gives you the altitude you need to recover when you get crossed up, but it's a lot harder to do. So try to practice with as much altitude as you can.

Step 1:

Like learning to ski, you need to know how to fall down and get back up first. You will make mistakes, even when you have it mastered. So, don't worry about how to control the roll yet. Concentrate on learning to catch the model and

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fly out of mistakes without losing altitude, regardless of the attitude the model falls into. This is the key to the torque roll.

How to do it:

At a safe altitude, pull the model vertical at about one-fourth throttle and begin to hover. Use just enough throttle to pull vertical, but not enough to sustain a hover. Let the model begin to fall out; it may fall to the side, the top, bottom or any combination. Practice catching it with the correct elevator and/or rudder input, and get the throttle in it. Focus on flying out level. After you start to get the hang of it and react faster, fly out vertical.

Trickiest Part:

Don't get confused and give the wrong input. Be careful, especially when the model falls with the nose toward you. That's why we start at a safe altitude.

Step 2:

You've now crossed the biggest hurdle in learning the torque roll. You can recover no matter which way the model falls out. You have confidence that you can save the aircraft every time. Now you can concentrate on two new things. First, work on reacting with the correct rudder and elevator inputs to keep the model vertical. (The good news is Step 1 has already sharpened your orientation and reaction skills.) Second, learn to fly the throttle stick to maintain altitude in a hover.

How to do it:

Bring your airplane down to a lower altitude. Start at about 25-feet, low enough to see the model and still high enough to give you a little reaction time before terra firma. Again pull to vertical, only this time add a little more power so the model hangs motionless in the air. Once you've got the throttle figured out, concentrate on flying the rudder and elevator to keep the model vertical.

Don't worry about ailerons; they aren't going to do much while you're hovering. This is a simply a balancing act, like riding a unicycle. The

## The Flyer

model may hover or it may begin to roll to the left. Don't worry about rolling, this happens naturally.

The model will begin to roll once it is very close to dead vertical. The better you can hold the model vertical, the faster it will torque roll.

Hint:

Choose a calm day to practice. Wind makes torque rolls much harder. You will also need lots of control surface throw to maintain control use as much as you can get, similar to a 3-D set-up if possible. While you'll need this much control at times, it also makes it much easier to over control the model, so use some expo. I suggest 25% on rudder and 40% to 50% on elevator. Now you'll have the control power when you need it, but a soft feel around neutral so you won't over control when making little corrections.

Trickiest part:

Learning to keep up with the model's orientation as it rolls to give the correct elevator and rudder inputs is the hardest part. It takes time to get good. One wrong input and the model will fall out, but you know how to fly out of a mistake so set up and try again. Also don't over control. Even too much of the right correction will make you fall out. Flip back to low rates as the model falls out so you don't over control and stall the airplane. Use that expo feature in your radio. Once you've got the hang of it, try backing the throttle down a few clicks as you are torque rolling and slide the model down closer to the ground.

And that, in a nutshell, is just about it. So now you've got a plan and you know what kind of model, all that's left is practice, practice, practice . . .

from Airmailer  
Benton County Radio Control Club  
Jim Trump, editor  
Corvallis OR



## Rigging Advantages of elastic thread

by Allan Schanzle

There are several materials that I have used for rigging on models. Three that come to mind are monofilament fishing line, regular sewing thread, and elastic thread. Each of these has its advantages. Monofilament fishing line can be purchased in almost any thickness, which facilitates selecting the proper size for the specific model being built. It can also be colored as desired by simply using a wide-tip permanent felt marker. Cyanoacrylate glues work well to hold these in place.

Normal sewing thread also works well and is available in a wide variety of colors and diameters. These two materials are great for rigging between wings or on the tail surfaces. The only disadvantage is that they don't give when landing in a field that has prickly grass or weeds. That makes them less desirable for rigging that is likely to get caught on ground materials. This is exactly the situation with the Spartan C2-60, where there is an abundance of rigging below the wing and around the landing gear. This feature led me to choose elastic thread for the rigging.

I bought my elastic thread at Jo-Ann Fabrics (I think is a nationwide chain). I purchased both black and white spools.

They can be unbraided if necessary, but one strand will be rather kinky, while the second strand appears normal and is good for simulating smaller diameter rigging. I used the smaller size for the rigging on the tail surfaces.

Some elastic thread I've used in the past works well, but after six months or so, it may lose its elasticity and become saggy. It is this characteristic that led me to use Elmer's white glue to attach the end of the elastic rigging whenever possible. This particular glue has several advantages:

1. Even after drying, it can be dissolved with water, allowing you to repair saggy rigging.

Simply soften the glue at one end of the thread with water, remove the thread, cut, and replace. You have to be patient and let the water soften the joint.

2. The hazy film of glue around the joint can be removed with a Q-tip soaked in water. This is a distinct advantage over acetone-based glues, such as Ambroid, where softening the glue usually ruins the finished surface around the joint.

3. It dries clear, avoiding the visual appearance of a blob of junk holding the rigging in place. (An unrelated benefit to Elmer's is to use it as a means of tack-gluing tail surfaces for initial flight testing. If you're like me, you won't remember where you put the small spots of glue, so simply use a small paint brush to apply water all around the joining surfaces—such as the stabilizer to the fuselage—and wait a few moments. As the glue softens, the joint turns opaque, allowing you to see exactly where the glue has been applied.)

Here is the approach I developed for rigging the Spartan.

1. When building the framework, glue small sheets of balsa to the substructure where thread is to be anchored.

2. After covering the model, make holes through the covering and into the balsa structure where the ends of the rigging will be attached. Use a small drill or a typical pin, which I found to be the perfect size for the thread I used.

3. Pick two points where rigging will be attached and cut a piece of elastic thread about three-fourths of the distance between the two points.

4. Apply a light coating of cyanoacrylate glue over approximately ½-inch at each end of the thread. This will stiffen this portion of the thread and make it relatively easy to insert into the drilled holes.

5. To produce the illusion of turnbuckles on a very small scale, dip about 3/8-inch of the ends

of the thread in the appropriate color paint. It may take several coats to build up a little thickness, but the earlier use of cyanoacrylate makes the thread less porous and helps to minimize the coats of paint.

6. Now try inserting the thread into one of the holes. If the hole is too big, simply apply another coat or two of paint until you get a tight fit. I found that with a bit of work, I could get the thread inserted into the holes at both ends in the stretched position and it would hold itself in place without glue. This makes it easy to apply a small drop of Elmer's at each end of the thread using the point of a pin.

from Max Fax  
D.C. Maxecuters  
Allan Schanzel, editor  
Washington DC



## The Secretary's Report

*By Jerry Crans*  
LFE Secretary

Meeting of February 3rd at LFE Field

Meeting called to order by Farin 11:35

Introduction of Guest/New Members 1

Approval of minutes of last meeting.

Committee Reports

Membership: 151 members.

Treasurers Report reported by Bertolucci

Events Chair: . Billy working on events for 2024

Instructors Report: No training

Quartermaster Report OK Jay brought up food planning for winter months.

Safety Officer Report: OK.

Field Maintenance Mower needs repair.

Technology group report: Ok

New Business: None

Show and Tell: None

Adjournment 11:48

Next Meeting March 2nd