



# Wing Tips



## OCTOBER & NOVEMBER 2023

The Newsletter of the Mid-Hudson Modelmasters

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### 2023 Club Officers

President: Paul Ollivett

Secretary: Larry Kunz

Sgt. at Arms: Flavio Ambrosini

Vice President: Scott Fellin

Treasurer: Tom Eng

### Club Calendar

#### Coming Up:

- **CLUB MEETING:** Saturday, Nov. 11, at the flying field. Watch your email sent via Google Groups for any updates.
- **December 2023 Wing Tips articles & photo submissions due, Thurs., Dec. 7.** Earn Modelmaster dollars for club related items submitted. Send your submissions to [hvmodelmasters@gmail.com](mailto:hvmodelmasters@gmail.com) Due date is first Thursday of each month.
- **Club Dues:** \$40 if paid before January 31, 2024. \$50 after January 31.
- **MONTHLY MEETINGS:** Watch your email for

meeting announcements..

- **OUTDOOR FLYING SESSIONS AT REDL PARK (aka West Road Field)** – Every Saturday Morning, weather permitting. Generally there is someone there every Saturday. Most members are flying between 9am and 12pm. Exceptions are weather related (rain, snow, excessive wind). If driveway to field is covered in snow, meet behind West Road School. If temperatures are extremely cold (roughly below 20 degrees) people tend to leave earlier than 12pm

## Model Masters Meeting Minutes Oct. 28, 2023

+ **Field meeting** Called by President Paul Ollivett @ 10:05 AM

> Next meeting is Saturday Nov 11, at the field.

+ **Treasurer's report:** by Tom Eng

> \$1829.34 is the current treasury balance.

> 2023 Membership now at 40 including 2 lifetime members

+ **Old Business :**

> Our fall Picnic / party happened 8 days late due to uncooperative weather, but Sunday Oct 1 was a beautiful, sunny day !

- All went very well with 5 contests run by various volunteers.

- Pizza replaced chicken dinner due to Sunday event. Many members brought salads, cookies, etc. so we had quite a feast.

- Some fine flying gear was auctioned off.

- Thank you Bob Santoro for your usual great job of organizing !

> Brad mowed again on the 27<sup>th</sup> (19 times so far this year)

+ **New business :**

> Annual dues: \$40 (\$50 after Jan 31) Always \$40 for new members.

- Checks to Mid Hudson Model Masters

c/o Paul Ollivett

> Budget:

- We will discontinue the club mailbox due to increasing cost.

- We will keep our website.

> **2024 club officers :**

- Please submit nominations for new officers (or volunteer !)

- All 2023 officers are willing to serve again, but would be happy to to pass the office to new blood.

- If interested, please e-mail president Paul at [pollivett@gmail.com](mailto:pollivett@gmail.com)

- Olga Servan-Schreiber has volunteered to take over the newsletter from Domenick. (Please make her job easier by sending material to [hvmodelmasters@gmail.com](mailto:hvmodelmasters@gmail.com)

- Roman Servan-Schreiber has volunteered to be Junior VP

(Maybe Roman will find more young members!)

> CrashFree Saturdays:

- Bob Santoro volunteered

to run an occasional Saturday morning event with low risk contests, and chicken dinners ! Watch for Wednesday e-mail.

> Winter flying:

- Many members fly all winter at our field, or at the West road school.

- Largely due to covid, we seem to have lost touch with our old



indoor flying venue (Highland Middle School)

- Al Monteleone will investigate using the "Lady of Fatima" church gymnasium In Plattikill.

### + Show & Tell :

- > Flavio showed his modular parts bin in a "Lil Snappers" box.
- > Several members showed their newly built Coro-plastic 9' Cubs. (see photos)

## Nine Foot Coroplast Cub Build Instructions Chapters 4 by Brad Quick

### CHAPTER Four: Finishing Up

#### Struts:

Attach a 2" piece of threaded rod to each end of a 27-1/2" carbon fiber tube as follows: Hold the threaded rod against the tube such that 3/4" of rod stick out past the end of the tube. Wrap the pair with sewing thread then soak the thread with thin CA glue. Before applying the glue, align the pieces so that they are parallel. Put both threaded rods on the same side of each tube. The picture below shows one end before the glue was applied, but it doesn't look much different when soaked with glue.



Use the 24-1/2" long carbon fiber tubes to double up the spar. Lay this shorter tube along side the longer tube, on the same side of the longer tube as the threaded rod. Center the shorter tube between the threaded rods. Use a wrap or two of electrical tape near each end to hold the two tubes in contact with each other. To make sure they are parallel, lay the assembly on a flat surface and push both ends down onto the surface until the assembly no longer rocks corner to corner on the flat surface. Now put the assembly on some waxed paper (or



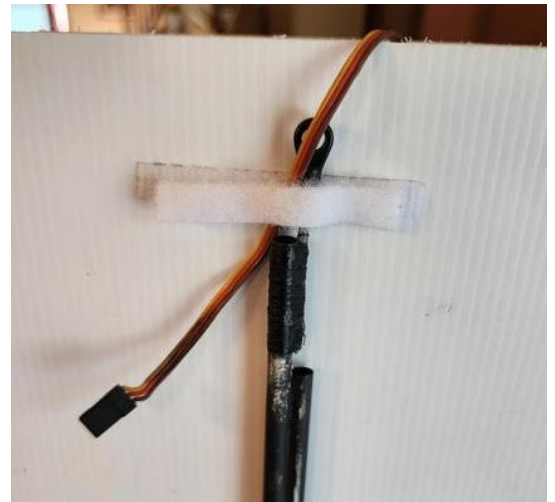
someplace else safe) and run a bead of thin CA down the joint between the two carbon fiber tubes, skipping the area where the tape is. Once cured, flip it over and CA the other side. Remove the tape and CA where the tape was.

Screw a rod end onto each end of the assembly.

At the inboard end of the wing, I recommend installing a strip of velcro to manage the loose end of the strut as well as the servo wire. This keeps you from stepping on the servo wire while carrying the wings out of the house (as me how I know).

I cut a narrow strip of the hard side of the velcro and attach it to the wing, then cut a similar length, but wider piece of the soft side of the velcro and fold it lengthwise on top of itself so that it's no longer sticky. Put the velcro near the end of the strut so that it is hidden inside of the fuselage when the wing is on the plane.

Use the socket head screws and lock nuts to attach the rod end to the wing. Do the same for the other end on the fuselage. I have been snapping the plastic rod end off off of the ball when I'm done flying and snapping it back on when I fly again. I don't yet know how long I can do this before the joint begins to loosen up.





Mount the wings onto the fuselage and adjust the rod ends until the desired amount of dihedral is achieved. On mine, if I stretch a string from wingtip to wingtip, I have a 1" gap between the string and the wing at the center of the plane. I think this is a good amount.

If you add dihedral, you should use your knife to shave a thin piece off of the top of the wings (or just one wing) where they meet so that the wings meet at the bottom. I cut a little too much so I have a small gap at the top. If the wings don't meet at the bottom, they will tend to rock on each other and won't necessarily remain straight as a pair.

Make sure that when you are finished, the wing looks even with respect to the horizontal stabilizer.

### Servos:



Mount the servos in the fuselage and the wings. Before doing so, add extensions to the wires. It's a good idea to use locking extensions or tie the connections to each other with a piece of thread so that they can't come apart during flight. Use a long stick with a piece of wire bent into a hook taped to the end to reach through the fuselage or wing and pull the extension out.

In the past, I have used the screws and grommets that come with the servo and screwed them right into the plastic, but the strength is marginal. The easiest method is to use hot melt glue as shown below.

Note the orientation of the servos shown below (and above for the aileron servos). These orientations allow the servo wire to head straight back to the receiver without having to loop back.



### Control Horns:



The slots for the control horns are not pre-cut. You will need to cut slots with your hobby knife. Cut through one layer and into the foam. If you cut into the other layer a little, that's OK, but you don't need to cut all the way through. Some of the control horns will interfere with carbon fiber tubes that are embedded in the control surface. When this is the case, cut some of the horn away to avoid the tube. The horn shown below is cut a little more than necessary because I salvaged it from my old cub.

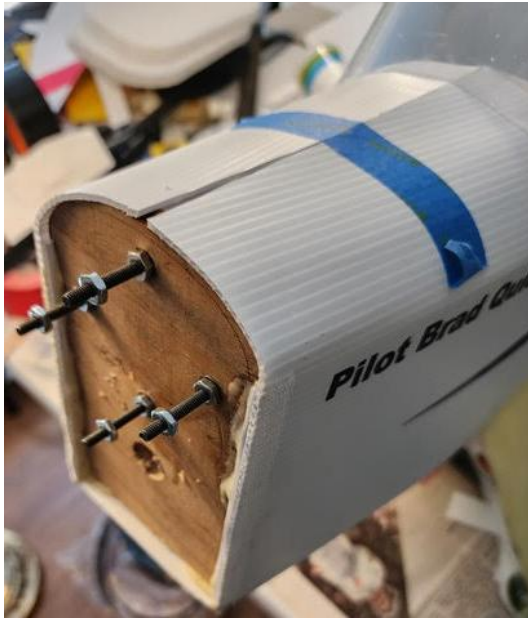
The control horns should be positioned so that the holes where the control rods attach are directly over the hinge of the surface being controlled.

Once the horn is where you want it, pull it out and apply some Gorilla glue mixed with water to the tab and slide it back into the slot.

Position the aileron horns so that the end up alongside a rib. Try to glue it to this rib as much as possible.

Once the glue has cured, add the control rods, rod ends, and servo arms.

Use the 8-32 x 1-1/2" screws to make the motor mount as shown. Use flat washers on the motor side of the firewall. If the screws don't line up perfectly with the holes



in the motor mount, bend the screws slightly. The nuts nearest the motor can be difficult to get on because they interfere with the wide part of the motor, but if you put the motor on the screws so that just a tiny amount of the screw sticks through the mount, you can get the nuts started, then tighten each nut just a little at a time in order to keep the nut away from the fat part of the motor.



If the rear shaft of the motor interferes with the firewall, either drill a clearance hole in the firewall or cut the rear shaft off of the motor. I cut the shaft off of the motor with a Dremel cutoff tool years ago.

You will want a fair amount of down thrust and a smaller amount of right thrust. Final adjustment will be done after a flight test.

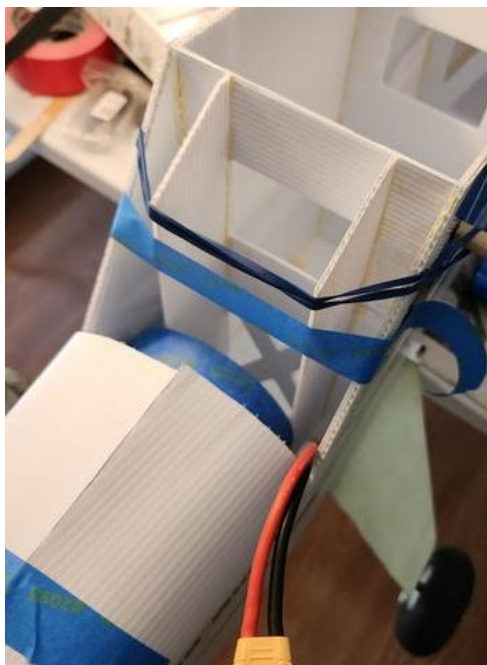
### Landing Gear:

The aluminum bars in the bottom of the fuselage are already tapped for the nylon bolts that will hold the landing gear on. Using a pointy bamboo skewer, poke down from inside the fuselage, through the center of each of the tapped holes, and out through the bottom of the plane. Flip the fuselage over and use these holes as guides to cut bigger holes that the aluminum landing gear spacers will fit into using your hobby knife.

Put the spacers in the holes and bolt the landing gear in place using the four nylon screws provided.

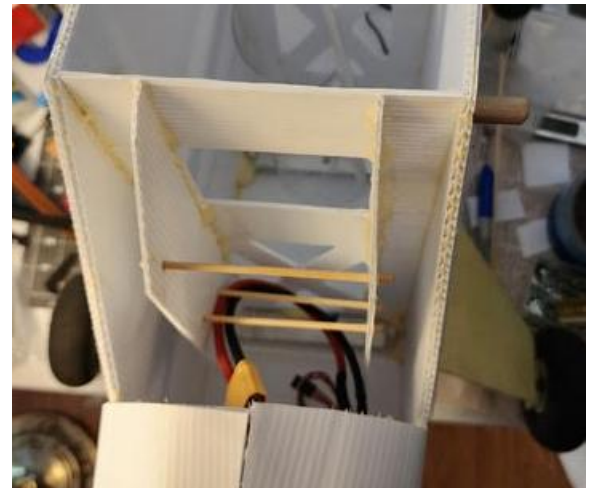
You may notice that there is an extra hole tapped in one of the aluminum bar. This was put there in case we wanted to use three mounting bolts instead of four.

### Battery Tray:



The original plan was for the battery to go longitudinally under the bottom of the wing, supported by the two large bulkheads. The rectangular piece of coroplast was the bottom of the tray and the angled ones were the sides. Because the tail is a little heavier on this model, the battery may need to be mounted a little further forward.

Put all of the parts in the plane and see where it balances. Move the battery around until it balances about 1/3 of the way back on the wing. You will probably find that it needs to be where my battery compartment is shown below. If so, then follow the directions below. If not, you will need to improvise.



Start by gluing the angled pieces to the bulkhead as shown. Adjust the width to match the width of your battery. Install a bamboo skewer to support the battery and two skewers to hold the battery against the bulkhead and dab some glue on the ends that stick through. The positioning will depend on the size of your battery(s). Keep the battery as high as possible. Keeping the weight close to the wing will make the plane roll more smoothly.

Use some self sticking velcro to make straps. Stick the velcro to the insides of the battery tray and leave some sticking out the top. Cover the stick side of the velcro that is sticking out with another piece of velcro of the same type. This will make it so that it doesn't matter which side of the strap goes on the top or bottom when you go to strap the battery in.

### **Graphics:**

The graphics come pre-cut on large sheets. Also provided are similarly sized sheets of clear contact paper. To transfer the graphics to the plane:

- Peel the backing off of a sheet of contact paper.
- Lay the full sheet of contact paper over top of the sheet of graphics so that the sticky side of the contact paper sticks to the vinyl side of the graphics sheet.
- Cut the individual graphics apart from each other using scissors, but leave anything that goes together as a single piece. The contact paper will hold the vinyl pieces in place.
- When you are ready to apply a section of graphics, peel the backing that was originally the vinyl backing.
- Stick the assembly to the plane, being careful to make as few air bubbles as possible.
- Rub the areas where there is vinyl using your finger nail, through the contact paper. This will make the vinyl adhere to the coroplast.
- Peel the contact paper off, leaving the vinyl on the plane. Peel slowly from one end to the other, making sure you don't peel up the vinyl. Once you get the contact paper to separate from the leading edge of a piece of vinyl, the rest should peel easily. To keep from peeling up this leading edge, rub it hard with your fingernail. If it still pull up, fold the contact paper back on itself right at the leading edge of the vinyl, then press hard on this edge as you pull the contact paper back on itself.
- Press the vinyl onto the coroplast and work out as many air bubbles as possible. If you have large air bubbles that you can't get out, prick them with your hobby knife then let the air out of the hole.

### **Windshield and Cowl:**

Cut some velcro lengthwise to make narrow strips. Use these strips to attach the windshield to the coroplast.

Also, use velcro on each side of the front of the fuselage for attaching the cowl.

### **Radio Setup:**

Because a piper cub has a long wing, it tends to suffer from adverse yaw. This means that when you use the ailerons to bank left, the drag on the left wingtip caused by the aileron moving up will make the plane yaw to the right, as if you had applied a little right rudder. To combat this, you can use separate channels for each of the ailerons and then program each of them with a differential output. This will make it so that the ailerons move up further than they move down. I think I have mine set to 60%. If you only have a four channel radio, it will still fly fine. You will just need to use a little more rudder when you turn.



## Nine Foot Coropast Cub Build by Members

### Paul Ollivett

Coro cub is coming along nicely. This was the first fitting of the wings, got the spars adjusted with a bit of dihedral. Now need to trim the top edges of the wings so the bottom fits with. No gap. Thanks again Brad for doing all of the work you have put in to these.



### Larry Kunz

Wing with all ribs and cross braces installed - prior to closing

The closing (better have your lawyer with you !)

Yes, the wing is under there ! (hope I got it straight)



Completed Coro Cub with Larry's signature orange color!



## Club Happenings from Over 40 Years Ago

**ADDITIONAL INFORMATION** provided by Bob Di Giacomo - People in Picture 40 Years ago , Well the little guy in the front of the group is my son Michael DiGiacomio . Who a lot of you should know! He is now president of Old Rhinebeck Aerodrome . He is at the Aerodrome on Sundays. Sometimes Marrying Trudey Trulove & Sir Perdie Goodfellow. He and 2 others own the cub that's in the Airshow .





- |                                     |                                |  |
|-------------------------------------|--------------------------------|--|
| ① David Aronstein<br>- Age about 15 | ⑪ Betty Baker                  | ⑲ Bob Aronstein                        |
| ② Steve Curran                      | ⑫ Frank Hilenbrandt            | ⑳ Unknown                              |
| ③ Bob? Farwel                       | ⑬ Frank Hilenbrandt's Son?     | ㉑ Unknown                              |
| ④ Bob DiGiacomo's Son ?             | ⑭ Unknown                      | ㉒ Unknown                              |
| ⑤ Bob DiGiacomo                     | ⑮ Unknown                      | ㉓ Unknown                              |
| ⑥ Tom DeGroot                       | ⑯ Unknown                      | ㉔ John Quimby                          |
| ⑦ Bob Beers                         | ⑰ Will Auen                    | ㉕ Unknown                              |
| ⑧ Bob Beers' Son                    | ⑱ Unknown                      | ㉖ Jack Arnouts Took<br>this Photograph |
| ⑨ Debbie Arnouts #28's wife         | ⑲ Bill Bolitho                 |  |
| ⑩ Jim "Crash" Baker                 | ㉗ Earl Van Gorder died in 1998 |  |

## Items from Members

**Rick Rizza** - I took some video and pictures at the recent Fun fly. Use this link to view them → <https://www.youtube.com/watch?v=JzbDN1KjKWw&authuser=0>

**Flavio Ambrosini** – Pictures of my DC-6. I had 2 successful flights with it that day after the rains cleared up.



**Larry Kunz** - If you don't own one of these, either buy one, or put it on your Christmas list ! This is NOT your typical Chinese break-off knife. I used it throughout my Coro-Cub build (anywhere that I didn't need the small size of the xacto knife) It is at least as sharp, and stays sharp much longer - then you break off a segment and keep going ! There is also a 9mm wide version – also a great knife. (Sorry I waited till most of you finished build to send this )

An image of an OLFA 18mm Heavy-Duty Utility Knife (L-1). The knife has a yellow handle with a black ergonomic grip and a silver blade. It is shown in a partially open position.

**OLFA 18mm Heavy-Duty Utility Knife (L-1) - Multi-Purpose Custom Cutting Depth Utility Knife w/ Ergonomic Grip Handle & Snap-Off Blade, Replacement Blades: Any OLFA 18mm Blade**

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Editor’s Note

After 8 year of publishing the newsletter, this is my last issue as the Wing Tips editor. I would like to thank the many members who have made contributions over the years. Without you there would not be a newsletter to publish each month. I’m not going far. I will still be flying. Beginning with the December issue Olga Servan-Schreiber will take over as the editor. Continue to send your input each month to the same email address. Olga will be taking over the email address as well. Thank you Olga for continuing to publish the new letter!