

Skywriter

official digital newsletter of

AMA Charter Club #970

www.skymasters.org

24 year Gold Leader Club



Skymasters Radio Control Club of Michigan

it's another beautiful day at Skymasters...

April, 2021



In this issue

3D Printing Experience	2
Some Assembly Required . . .	3
Time to spare, part 4 . . .	12
Indoor photos	16
Flyers	17, 18
News	19
Calendar	20



Happy April!

Hope you are having a great spring. I have been able to sneak away to both indoor flying and the field a few times last month. Don't you love spring cross winds from the south! My least favorite wind direction for hand launching. Although I prefer straight down wind to cross wind on launch.

I'm happy to report, the EOC has decided to host 4 events this summer including:

- 6/6 Night Fly (Pete Foss CD)
- 7/17 Control Line Fly (Jim Satawa and Steve Kretchmer ED)
- 8/15 Warbirds and Scale (Phil Saunders CD)
- 9/9-12 Mid West Regional Float Fly (David Wendt CD)

In addition, while we need to work out some details, we plan to host our formal Student Nights every Wednesday evening all summer long. Hopefully we will start them up in May depending on the weather.

On a personal note, I was very happy when Michigan opened up vaccination to 50 and older. Carolynn and I were able to get into Beaumont within a few days of the expansion to younger people. We look forward to everyone getting vaccinated soon.

Stay Safe,
Pete Foss, President, Skymasters RC

3D Printing Experience

Hi all, as I posted last month in the President's letter, I was seduced over to the dark side by Rob Kallok's presentation to the club on 3D printing. (He triggered the purchase of 3 printers in the club that I know of!) In the last month, I have printed lots of scale detail parts for my D-VII machine guns. In addition, I took advantage of some free test files from www.3daeroventures.com to evaluate 3D printing of airplane structures. Specifically, files for a Super Chipmunk the same size as my Goldberg and Hyperion 60 size birds (64" wingspan).

As you can see in the picture of the assembled wing section and wing tip, the fit was "OK". I was dealing a bit with what is known as "elephant's foot" where the first mm or so of the print flares out a bit. To work on this I used about an inch wide section of the wing and tip parts to test. I was able to tune most of the problem away and get a nice fit between the parts. The gray parts I have printed are PLA+ from Inland available at Microcenter for about \$20/kg (\$9/lb). The white parts are a new material that's been on the market about a year or so from Color-Fabb called LW-PLA. It contains a blowing agent so when you print, the material foams up about 2.5 times. So while it's more expensive per pound at \$30/lb, you use less material so it works out to be about 30% more expensive.

Given the excellent presales support from Eric at 3daeroventures, I decided to reward his efforts by purchasing the files for his Micro SportCam design shown below. It's a 27.4" wingspan 4 channel plane designed for an 18 mm outrunner. For \$15 plus \$10 in PLA+ and LW-PLA filament, it seemed like a great place to start printing a full plane. More to follow next month, but here's a teaser picture of the center section of the fuselage.

Fly Safe!
Pete



Front Cover

Greg Brausa holding down the fort at the indoor flying registration table. Thanks Greg for shouldering the load!

Paul Goelz photo



Control Line Fierce Arrow Finishing

Over the last two articles I showed the construction of the wing and fuselage of a 1950's era flying wing precision aerobatics model called Fierce Arrow. Flying wing stunters have never been favored for various reasons but the Fierce Arrow proved its detractors wrong by winning several major contests. Anyway, I remember the model from those days and thought it was really cool but didn't have the skills at the time to build one. That was then and this is now and I'm fulfilling a dream from long ago. To remind you of what a Fierce Arrow looks like, here is a picture of one finished like the original "Wild Bill" Netzeband model.



Covering tools.

- Heat gun
- Covering iron set to 250 degrees
- Covering iron set to 300 degrees
- A covering iron sock
- A laser temperature probe
- A trim iron
- SHARP scissors
- Xacto knife with NEW #11 blade
- Marking pen
- Tack cloth
- A 24" ruler
- A pair of cotton gloves (not shown)



Fierce Arrow.

In this article I'll go through the film covering process and then the painting of my model in a derivative of the Netzeband scheme. Lets get started.

I'm not going to spend a lot of time on the covering process as I've gone through this many times in prior articles. So Here's the highlights and a couple of special considerations. The tools I used are depicted in the following photo.

As in the past I used the covering material sold by Hobby King. This stuff is by far the best covering material I've ever used. It is a low temperature film, it shrinks and stretches easily and it is inexpensive (about \$10 per 15+ ft roll).

Also, as in the past I chose to leave the final assembly of the wing and fuselage until after the covering is finished. Starting with the wing, using the long ruler. Marking pen and scissors. I cut film pieces for the top, bottom, left and right. I gave myself a 1" margin at the leading and trailing edges and 3" at the wing tip to allow for getting a good hold of the material with a gloved hand to stretch the film over the wing tip.

(Continued on page 4)

(Continued from page 3)

The first step in covering is to do a final sanding with 320 grit paper and then use compressed air and a tack cloth to eliminate any contaminants from the surfaces.



Using a tack cloth to clean the surfaces.

Now, following the usual process of tacking the covering in the 4 corners, adhering along the edges and stretching and attaching at the wing tip I installed a lower surface piece of covering. Normally the next step would be to use a heat gun to shrink the film to eliminate wrinkles. However, the fierce arrow airfoil won't allow that practice. Why? The Fierce arrow uses a so called "pollywog" airfoil for a theoretical drag reduction. A pollywog airfoil differs from most other airfoils in that the top and bottom surfaces are concave from the high point to the trailing edge.



Concave pollywog airfoil shape

The issue here is adhering the film to the concave ribs if the film has already been shrunk. So, the process I used was to use the trim iron with the flat tip installed and the temperature set to about 300 degrees to adhere the film to the rib cap strips. Once that was done, I used the 250 degree iron to shrink the film between the ribs being careful to not heat the film attached to the ribs. If you shrink the film first you will have a difficult time getting the tight film to adhere to the ribs.

You may recall from the wing build article that I'll be using Robart Hinge Points on this model. During the wing

construction I created a semi-circular relief on the wing and flap at each hinge location to clear the knuckle of the hinge. To deal with the covering in those spots I used my trim iron with the conical tip to fuse the film into the recesses.



Fusing the covering film into the hinge recesses.

I complete the hinge location preparation by using my soldering iron with the tapered round tip to melt the film where the hinge hole is.



Melting the film blocking the hinge hole.

Covering the fuselage was done using 4 pieces of film: a left side piece, a right side piece, a bottom piece and a hatch piece.



Fuselage side covering piece is cut about an inch oversized.

(Continued on page 5)

(Continued from page 4)



Side covering ready to be shrunk.

In the above picture, note the size of the wrinkles. The hobby King film handles this easily. The final step is to use the Xacto knife to trim the excess film.



Trimming the film.

The cowl was the final part to be covered. Foolishly I thought I might be able to cover it with one piece by taking advantage of the shrink properties of the film. I couldn't do it. The part is small and has extreme concave and convex contours next to one another. I think it could have been done with an extra pair of hands which I didn't have so I did it in 3 pieces instead. Oh well....



Cowl ready for covering.

In the above picture you can see the motor cooling inlet holes and a dummy cylinder head. After covering I wanted to put screen material in the cooling holes to conceal the fact that there isn't a glow engine inside of the cowl. I wanted the screen material even with the outer surface of the cowl. To do that I made tools to form the screen material into an elongated cup that would be inserted from the inside of the cowl. The tools consist of an MDF cavity mold and punch sized to match the cowl opening. Small pieces of the aluminum screen there forced into the cavity with an undersized punch to form the screen insert.



Inlet screen forming tools.



A finished aluminum screen insert.



Covered cowl with screen inserts installed.

(Continued on page 6)

(Continued from page 5)

The next thing is to mate the wing to the fuselage. To do this, I slid the wing into the opening in the fuselage. I used a long ruler to align the wing with the fuselage center-line. After double and triple checking the alignment. I used a pen to mark the outline of the fuselage on the wing covering. I then removed the fuselage and used my Xacto knife to cut the covering along the marked line in preparation for the next step.



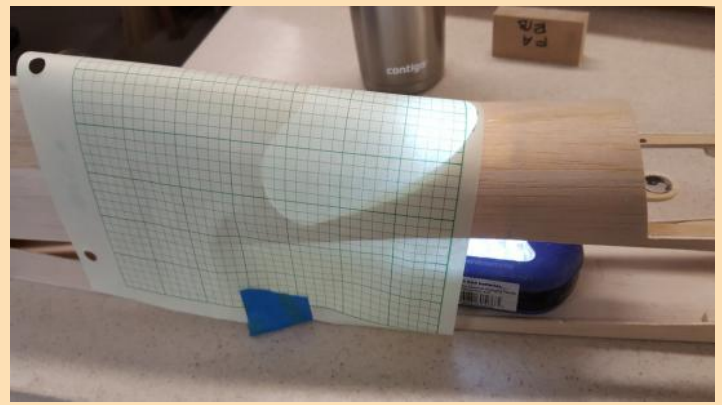
Cutting the covering at the marked line.

The wing was installed for the final time and the alignment checked one last time. I put a couple of dots of thick CA between the fuselage and wing to hold the alignment while I taped off the glue joint. I applied tape on both sides of the joint about 1/16" away from the edges. I then mixed 30 minute epoxy with some micro balloons to create a paste which I pushed into the joint with a wood coffee stirrer. Finally, I used a paper towel soaked in alcohol to remove the excess epoxy before it started to cure. To finish the joint after the epoxy cured, I cut a strip of covering 1/2" wide and used the trim iron to adhere the strip to cover the joint.



Applying epoxy into the fuselage to wing joint.

I had previously made a template for the windscreen by shining a light through the opening and tracing the outline of the shadow in a piece of paper.



Shadow tracing of the windscreen template.

I then drew an offset line about 1/8" outside of the previously traced line to allow for a glue joint. I applied masking tape to a piece of X-ray film and traced the pattern to make a cut line.



Marking the cut line for the windscreen.

I then glued the windscreen in place with RC-56 canopy glue. The next day I started the painting of the trim colors.

I decided to make an adaptation of the Netzeband trim design Using more curved shapes and adding some special paint effects and some bling.

Before I applied any paint to the model I did a great deal of experimenting with colors and paint compatibility since my design would call for a variety of paint types and brands. I have an old Quickie 500 wing covered with the Hobby King material that I use for paint testing and to develop painting techniques. **I cannot emphasize this enough... do not put paint on your model without testing the materials and techniques first!**

On my last few builds I have used a color shift paint in a variety of colors. The material I use is a Folkart brand craft paint I purchase at the Michaels craft store. The color shift effect results in the paint color changing from purple to green for example based on the angle of viewing and the direction of the light. I selected a pur-

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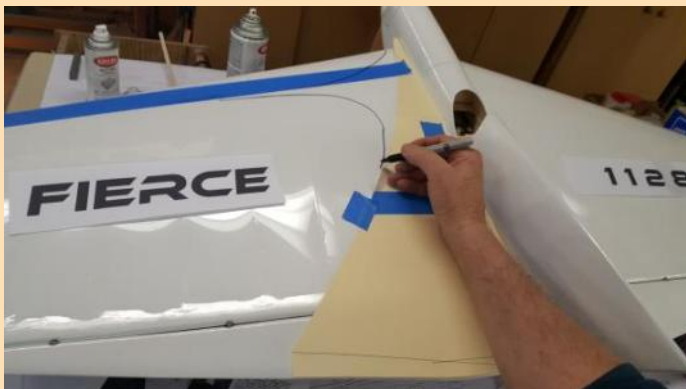
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ple paint that shifts to green and a lime green that shifts to a gold. I also selected a plain black paint that would be used as an under coat for a special effect I'll talk about shortly. Earlier, I mentioned that I wanted to add some bling to the paint. To do that I selected a Krylon brand clear paint called "Shimmer". This paint contains glitter designed to reflect light in various colors. I applied this glitter clear coat over the two color shift paints as well as the plain black paint to create the desired bling. In addition, as I mentioned earlier I wanted to create a special effect. The special effect will be a "ghost" checkerboard effect on the black paint. The ghost checkerboard pattern was applied over the glitter coated black paint. I used a Folkart brand clear glitter paint called Dragonfly. This paint is a multi color glitter that changes from silver to purple depending on viewing angle.

To do all of this requires a lot of masking to do the color separations and then apply the two glitter finishes over the 3 colors. The paint design will be similar the the original fierce arrow except there will be curved edges and there will be a 1/4" unpainted strip of the white film covering separating the colors. The first step was to lay out the design on the film surface. I used a cardboard template, a french curve, a 24" ruler and an ultra fine Sharpie pen.



French curve for drawing the curves.



Cardboard template.

Before we go on, lets talk a little about masking tape. First, most tapes are marked with a rating on how aggressively they stick to the surface. For taping directly on the film surface I use the 3M blue painters tape but this tape is risky to use on your painted surface. If you have not allowed enough dry time for a paint for example, the tape might lift the paint. For those situations, I use tape labeled as "for use on delicate surfaces". 3M makes such a tape. To mask curves I like to use black vinyl electricians tape. In this case I cut the tape into 1/4" wide strips on a piece of glass.



Cutting electricians tape into narrow strips.

I also like to use this tape for most edge masking because it leaves a sharp edge with little chance of paint bleeding under. So in this project I used the electricians tape for all edges and other materials for covering the unpainted field areas. In this case I used a pre-taped clear film that comes on a roll. I get it from my automotive paint materials supplier. In this case I used it by applying the tape on the black electricians tape and then pulling the clear film out to cover the field.

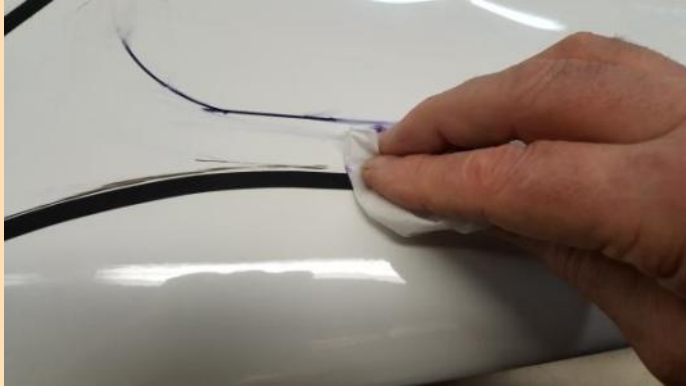


Pre-taped masking film.

So I first applied the narrow electricians tape along the marked lines, I try to keep from covering the lines with the tape so that the ink lines can be removed before painting to prevent the possibility of the paint bleeding through the paint. To remove the ink lines I use a paper towel and alcohol.

(Continued on page 8)

(Continued from page 7)



Removing ink lines

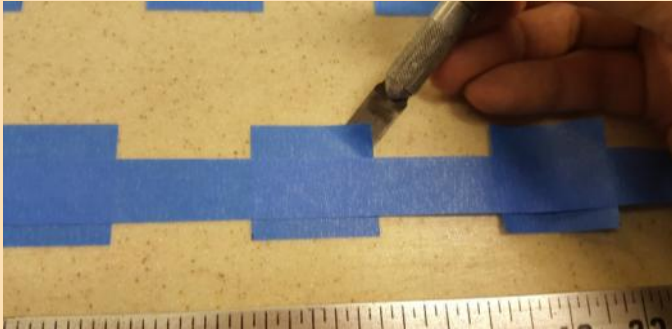
The following pictures show various stages of masking for this project. The sequence of masking is entirely dependant on the design and the number of colors being used.



For the checkerboard pattern the big issue is masking off all of the squares to get the right size and spacing. To accomplish this I laid down strips of 1-1/2" wide delicate surface tape on my Corian work table. I then used a straight edge, a ruler and a drafting triangle to measure out 1-1/2" spaces. I then cut the tape with my Xacto knife. I then removed every other cut square leaving 1-1/2 " squares with 11/2-" spacing.

(Continued on page 9)

(Continued from page 8)



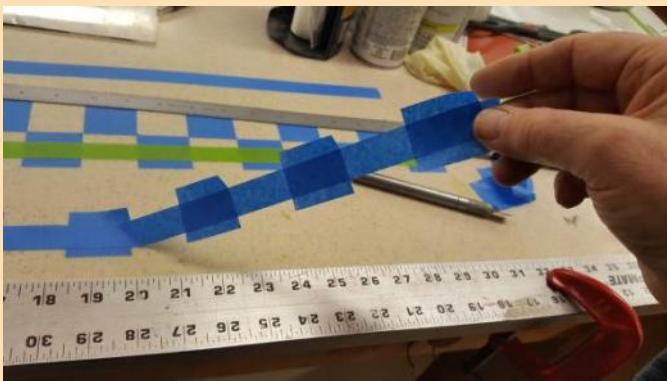
Uniformly spaced squares.

Next I cut a narrower strip of tape and placed it over a row of squares to join them while maintaining the spacing.



Adding a carrier strip of tape.

The next step is to lift the carrier and squares off of the bench surface.



Lifting the squares off of the bench.

I then applied the strip to the model. Next I lift the carrier tape away from the squares. I repeated this process until the checkerboard pattern is complete.



Checkerboard masking is complete.

The ghost effect is now sprayed over the masked area using the Folkart Dragonfly paint.



Dragonfly paint.



Removing the checkerboard masking.

The final step here is to mask the painted area again and apply several coats of clear. I used Krylon brand Crystal Clear acrylic in a rattle can.

The last step is to create a mask for the Fierce Arrow name that will be done in a hand applied gold and copper leaf mix.

To make the mask I printed out the Fierce Arrow name

(Continued on page 10)

(Continued from page 9)

in the font and size I wanted using an ordinary ink jet printer. On these masking projects I use Contact brand clear vinyl shelf paper. You can see through the release paper backing. I give the printed name with a coat of 3M #77 spray adhesive on the face of the name. I then put a piece of the clear shelf paper on top of the pattern. I then free hand cut through the shelf paper and pattern on a cutting mat.



Stencil mask ready to cut.



The mask is fully cut.

The clear vinyl is now peeled from its backing paper and applied to the model.



The mask is in place.

The leaf material will be bonded to the wing surface with the 3M #77 spray adhesive. I mask around the stencil to keep the glue off of everything.



Masking around the mask.

I then sprinkle some of the leaf material over the stencil and use a stiff artists brush to distribute it and make sure it is stuck down and smooth



Applying the leaf material.

The stencil now gets 2 coats of the Krylon Crystal Clear rattle can paint.

So here is the final result of this project



Fierce Arrow name in gold and copper leaf.

The colorshift and bling doesn't photograph well in room lighting but this is what it looks like.

(Continued on page 11)

(Continued from page 10)



The finished paint scheme. Hope you like it.

So that's it for this month. Next month I'll be returning to the NATS Authentic Scale FW 190F8 R1 model. I'm done with the tiny tiny details and I'll be painting it.

***Finally, if you read my articles please drop me an email just to let me know.
slkret123@gmail.com Just copy and paste the email address in your email system and say
"Hey, I read your stuff".***

Thanks, Steve Kretschmer

Time (and Money) To Spare, Go By Air

Part 4—The Real Dollar Costs of Flying

By Ken Gutelius

If you've been reading my articles for the last couple of months, you have followed my journey from sailor to RC pilot to full-size pilot to aircraft owner. If you haven't, well, you've missed out on all the fun. In the course of writing this series, it was suggested to me that there might be a great deal of interest in the economics of flying. There is no one-size-fits-all answer but I will try to give you some idea of what it takes. There is lots of room to go up and some room to go down in cost depending on what you want to do.

The first step in the spending journey is training for and acquiring a pilot certificate. For many decades, the Private Pilot certificate has been the standard for someone who wanted to fly for their own purposes and not get paid for it. It is still the certificate that the majority of non-professional pilots in the US hold. The next step lower in cost and privileges is the Recreational Pilot certificate. This allows you to fly many of the same planes as a Private Pilot but with additional limitations (e.g., only one passenger can be carried and you must stay within 50 miles of your point of departure). The Sport Pilot certificate allows for flying only Light Sport Aircraft (LSA) and also has limitations on where and when you can fly. Neither Recreational nor Sport Pilots can be instrument rated. Thus, they have more limits on the weather conditions in which they can fly as compared to an instrument rated Private Pilot.

The good news for RC pilots is that some skills and knowledge will carry over. The better your RC skills, the easier you will find it to fly a full-size aircraft. If you are a "right stick" RC pilot, I would suggest you work on using the throttle and rudder throughout each flight as flying at full throttle all the time and not using the rudder is a no-go in the full-size world. Actually, I would suggest developing those skills even if you don't plan to move up to full-size. But that's a topic for another day. Regardless, having some aeronautical knowledge from RC flying may help you to acquire your pilot certificate more quickly and save money in the training phase.

If you are in the middle class, flying is probably going to look expensive. As hobbies go, it's not cheap but there are some things you can do to control your costs. Here are some suggestions in no particular order:

- Use a flight simulator. If you use the most difficult settings this is actually harder than the real plane. With simulator practice you will be better prepared to master maneuvers in actual flight during your training.
- Train as quickly and consistently as you can. Taking breaks or not flying enough allows your skills to backslide and will require more flying hours and money in the long run.
- Keep track of your progress at filling the various requirements. It's good (and fun) just to go out and exercise the skills you already have but if you are not completing the cross country, instrument or night hours efficiently, it will take more hours to finish. Talk to your instructor and make a plan.
- Make sure your instructor is a good fit for your learning style. If it seems like you aren't able to make connections or are frustrated or uncomfortable during lessons, you should probably seek another instructor. If the school has different instructors, try another one. If you don't have other options within the school, try another school. A bad fit will slow the learning process and cost more money.
- If you decide to get instrument rated, find a safety pilot(s) who want to build hours. They will be your copilot for free while you are "under the hood." Not all of your hood hours need to be with an instructor. Using safety pilots saves \$40-\$50 per hour. You can use a safety pilot for up to 25 hours of your instrument time for an easy \$1000+ savings.
- Be diligent and work ahead on developing your flying knowledge. Less ground school time is required if you have a good knowledge base and you will be closer to being prepared for your written test. There are lots of online resources including practice tests.
- Try to score well on your written test and be well prepared for your checkride. If you show up with a good test score in hand and display good competence and knowledge to the examiner from the start, your checkride is likely to be shorter and more pleasant. You are also more likely to pass on the first try. Repeating checkrides in order to pass costs money.

(Continued on page 13)



My flight simulator hardware

Based on my experience and some additional research, here is what you can expect to pay to get your license. If you follow some or all of the tips above and perhaps have some natural ability, you may come out near or even below the low end. With a less disciplined approach you will probably be toward the higher end or you may end up being a perpetual student. There's actually nothing wrong with being a perpetual student as long as that meets your goals. But my assumption here is that you want to graduate to a full pilot certificate. The training costs shown assume typical flight school aircraft rental, instructor, miscellaneous materials and test fees.

Typical Training Costs

- Private Pilot certificate: \$8,000-\$12,000
- Instrument Rating: \$6,000-\$10,000 additional after Private Pilot
- Sport Pilot: \$4,000-\$6,000

(Continued on page 14)

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Recreational Pilot: Cost somewhere between Private and Sport; most people either do Sport or Private, Recreational is rare (127 out of over 600,000 pilots in the US in 2019).

To continue flying once you are certified, you will need to rent, join a club or buy a plane. Buying can include a partner or partners to help with the cost. Joining a club may cost roughly the same as renting if you fly a typical number of hours (~50-80 hours per year) but it may cost less. If you fly more, your fixed dues will be spread out over more hours for a lower hourly cost. Clubs typically have monthly dues plus an hourly charge. Likewise, an owner lowers his/her hourly cost by flying more as the fixed costs cover more hours.

Costs for the sport pilot are kind of a mixed bag. The Light Sport category is relatively new (~20 years) so there are no cheap 40-year-old purpose-built LSAs to choose from. Therefore, the initial investment will be higher, but operating costs should be lower due to better fuel efficiency and fewer maintenance issues with the newer equipment. Finding an old "legacy" plane (such as a Piper J-3) that fits within the Light Sport category is also possible but the selection is limited and you again have the maintenance issues of an older plane. Rental and club light sport planes are still relatively rare.



A purpose-built Flight Design LSA

Certain Er-

couples qualify as LSAs

As you can see, there are many ways to approach flying. If your interest is serious, there are many sources where you can do more detailed research. Below I am presenting the ongoing costs for the type of flying I do. The numbers are representative of a four seat, fixed gear, fixed pitch propeller plane of reasonable weight carrying and cross-country capability flown 80-100 hours per year. A Cessna 172, Piper Archer or my own Grumman Tiger are good representatives of this configuration. A two-seater may be a bit cheaper, a fast retractable would be more both in acquisition and ongoing fuel and maintenance costs. There are other possibilities such as gliders and ultralights but I can't claim any expertise on those.

Typical Flying Costs

Renting: \$150-\$170 per hour, everything included; "wet rate" means fuel is included.

Club (details vary greatly):

Initial buy in \$700-3500

Monthly dues \$50-150

\$80-120 per hour

Individual ownership:

Initial investment/one-time cost \$30,000-\$500,000 per below; older airplanes tend to be stable in value so you may be able to get much of your money back when selling.

\$130-180 per hour based on "ongoing costs" below

One Time Costs-Single Owner

1970-1985 airplane in airworthy condition: \$30,000-\$60,000 (the low end will show its age)

Attractive (repainted/reupholstered) 1970-1985 airplane, better equipped: \$60,000-\$100,000

Instrument panel upgrade (replace 70's/80's tech with modern avionics): \$10,000-\$50,000

Exterior paint: \$5000-15,000

New interior: \$2000-3000 owner installed, \$7000-8000 professionally installed

New airplane: \$300,000-\$500,000

(Continued on page 15)

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Ongoing Costs-Single Owner

Fuel: \$40 per hour (\$4-\$5 per gallon and 8-10 gallons per hour); higher at remote airports (\$6 per gallon at Beaver Island) or urban airports (\$8 at Chicago Midway)

Insurance: \$800-2000 per year; don't be cheap, \$800 may not look like a good deal after an incident

Maintenance/Repair/Inspection: \$1000-5000 per year, possibly more in a bad year

Hangar rental: \$250-350 per month; don't store outside, you will regret it

Engine overhaul, generally required about every 2000 hours: \$20,000-30,000

Niagara Falls from 9000 feet: Priceless (remember the MasterCard commercials?)



Planning the flight for a view of Niagara Falls en route

Ken Gutelius

Indoor Flying in March

Click anywhere in the collage to view the entire photo album on the Skymasters web site



Skymasters



Indoor Flying

**Join us Tuesday's from 10:AM-1:PM*
at Ultimate Soccer Arenas**

Where its always warm and dry!

Located on 867 South Blvd., Pontiac, MI 48341

Oct. 27th thru Apr. 13th*

Single session—\$10 pay at the door

No punch cards

No season passes

*** Dates & Times Subject to Change**

Schedule and Rules available on line at www.Skymasters.org

All Pilots/Drivers must have proof of current AMA Membership
A Special 3 Month Trial AMA Membership Application is Available

Trainer Planes On Site – Come Check It Out



“SKYMASTERS” INDOOR FLYING

At Ultimate Soccer Arenas

*For the 2020-2021 Winter Season**

OCTOBER:

Tues. 27th

Flying sessions start at 10 am and end at 1: PM *

Please Bring Proper Change For Payment.

NOVEMBER:

Tues. 3rd

Tues. 10th

Tues. 17st

Tues. 24th

FEBRUARY:

Tues. 2nd

Tues. 9th

Tues. 16th

Tues. 23th

DECEMBER:

Tues. 1st

Tues. 8th

Tues. 15th

Tues. 22nd **TBD

Tues. 29th **TBD

MARCH:

Tues. 2nd

Tues. 9th

Tues. 16th

Tues. 23th

Tues. 30th

JANUARY:

Tues. 5th

Tues. 12th

Mon. 18th MLK Day

Tues. 26th

APRIL

Tues. 6th

Tues. 13th

*** Dates & Times
Subject to Change or
Cancellation Without Notice**

For rules & additional information go to: www.Skymasters.org
You can contact the Event Director at: Indoorfly@Skymasters.org

ON THE WING



Indoor Flying

[\(AMA required - Click this link for more info\)](#)

Every Tuesday
10AM — 1PM

Ultimate Soccer Arenas

[867 S Blvd E, Pontiac, MI 48341](#)

[\(North off of Auburn, west of Opdyke. Click this link for a map\)](#)

Notice:

The Retirees and
Wannabes Breakfast
At Red Olive

Is cancelled until further
notice due to COVID-19

Notice:

The Skymasters Breakfast
At Iris Café

Is cancelled until further notice
due to COVID-19

Other local area indoor flying

Premiere Sports Center

[14901 23 mile, Shelby Twp, MI](#)

[\(northwest corner of 23 mile and Hayes\)](#)

Every Thursday, 9AM to 3PM

Electric planes and helis (separate heli space)

\$10/session, AMA required

Info: Steve Durecki 586-246-4203 (text or voice)

<http://www.stevesindoorflying.com/>

April 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 Indoor flying 9AM-3PM Premier Soccer	2	3
4	5	6 Indoor flying 10AM-1PM Ultimate Soccer	7	8 Indoor flying 9AM-3PM Premier Soccer	9 Toledo R/C Auction, swap and Fun Fly 9AM	10 Toledo R/C Auction, swap and Fun Fly 9AM
11	12	13 Indoor flying 10AM-1PM Ultimate Soccer	14	15 Indoor flying 9AM-3PM Premier Soccer	16	17
18	19	20 Indoor flying 10AM-1PM Ultimate Soccer	21	22 Indoor flying 9AM-3PM Premier Soccer	23	24
25	26	27 Indoor flying 10AM-1PM Ultimate Soccer	28	29 Indoor flying 9AM-3PM Premier Soccer	30	

Skymasters Information...

[The Skymasters field is located in Lake Orion, within the Bald Mountain Recreational Area](#) on Scripps Road, between M24 and Joslyn (see map). A recreation passport or sticker is required and can be obtained from the Park Headquarters located on Greenshield Road or you can check the box on your tab renewal for a "Recreational Passport".

Flying hours:

QUIET ELECTRICS ONLY from 8AM to 10AM and 8PM to 10PM. **The noise limit is 80dBa at ten feet.** Regular flying is permitted between 10 AM to 8 PM. **The noise limit is 94 dBa at 10 feet.** These noise limits are enforced.

Student Instruction & Pot Luck

Every Wednesday, May through September. Flying any time but we eat at 6:00 p.m. - rain or shine, literally! For those participating we ask that

you bring something for the grill - enough to feed (at least) you and your guests -OR- bring a dish to pass -OR- bring your own (non-alcoholic) beverage. **Something for the grill:** The obvious choices are burgers, sausages/brats and hotdogs - but other alternatives are welcome. If you bring it we will cook it! We've cooked pork tenderloin and chops, salmon, venison burgers, steaks and more. Don't forget the buns.

We start cooking about 5:30 p.m. - having grill items by then helps us get everything ready on time.

Potluck dish to pass: Don't know what to bring, working late? Each week we'll let you know what is needed for the next week from plates to condiments, charcoal, etc. **Pick one of the needed items to bring instead!** Not one to cook? A quick stop at local supermarket deli

for a side salad, or bakery for dessert always works!

From June through August, club meetings are held at the field, on the second and fourth Wednesday of the month at 8 PM. A great chance to fly and socialize. **Winter meetings (September through May)** are held at the Orion Center, 1335 Joslyn, in Lake Orion. Bring a model for Show and Tell, enjoy coffee and donuts and listen to the speaker of the evening.

The Skywriter newsletter is available online at the Skymasters web site and is free to all. It may also be printed from the web site if desired. All contributions are welcome. Please send photos and articles to newsletter@skymasters.org If you know of anyone who may be interested in R/C Aviation, please give them a link to this newsletter or give them a copy of an AMA magazine. It may spark their interest!



2020 Club Officers & Appointees...

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Newsletter Submissions

Please send all articles, photos and announcements to the Skywriter editor at:
newsletter@skymasters.org
 Deadline is the 20th of each month.

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