

BY STEVE MILLS stevem@flyrc.com

SIG MFG.

T-Clips

*A classic Taylorcraft
with a twist!*

The full-scale T-Clips with the SIG model in the foreground.



NEED TO KNOW

MFG/DISTRIBUTOR:
SIG Mfg.

TYPE: Sport-scale ARF

FOR: Intermediate sport pilots

MINIMUM FLYING AREA:
RC club field

PRICE: \$169.99

NEEDED TO COMPLETE:

Four or five channel radio system, brushless motor, 60-75 amp ESC, 4S 3000-5000 LiPo, four standard size servos and a 13x6.5 propeller



Author's Opinion

The T-Clips is a great everyday flier. It builds fast and does not require a huge budget to complete. All the hardware is included and it flies on an economical power system and standard servos. The T-Clips can be mild for a lazy day of flying with smooth, slow flight and easy touch-and-goes. Then drop another battery pack in and it can be wild with snap rolls, spins, knife-edge and inverted flight! Its two-piece wing makes it easy to transport in a smaller vehicle and store safely at the end of the day.

Key Features

- > The T-Clips is an easy build that can be done in a couple of evenings.
- > Its mixed flying styles make it a fun airplane for any day.
- > With a two-piece wing and a short fuse, it is very easy to transport and store.
- > The slide-in battery tray makes it easy to secure the battery and still provides easy access.
- > The genuine Oracover covering scheme looks great on the ground and in the air.

Pros

- > Full hardware set so there are no extra small items needed to complete the airplane
- > The slide-in battery tray sits right on the CG, making it easy to use different battery sizes
- > The plane can fly both mild and wild for a variety of flying styles

Cons

- > Ground handling is good but it can ground loop on pilots with little tail dragger experience
- > The included motor box is glued to the firewall which makes replacement difficult if swapping to a different length motor



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The Video!**

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SIG didn't have to look far to find the inspiration for their latest airplane. Tucked down on a family farm a few miles south from SIG's offices sits a wonderful clipped-wing Taylorcraft owned and operated by Erik Edgren. The full-scale "T-Clips" has been modified for aerobatics and SIG has done a great job reproducing the look and aerobatic capabilities of its full-scale namesake. Just like the full-scale version, it can be a gentle flyer with easy takeoffs, smooth cruising and soft landings. However, push the throttle forward and slam the sticks in the corners and hold on because you'll be "Twisting it Old School" with snap rolls, spins and more! Mike Gretz designed SIG's T-Clips, giving it both slow and stable characteristics but also the ability to wring out some exciting maneuvers.

ASSEMBLY TIPS

The overall assembly was straightforward and easy. All the larger components were bagged individually and secured inside the box with tape as necessary to ensure the model is not damaged before hitting your workbench. SIG made sure that all the necessary hardware is included and they included a step-by-step manual complete with photos to assist the builder. With all the parts in hand it only took me about six hours over two nights to assemble the airframe and install the radio gear and power system.

The T-Clips calls for standard size servos so we chose to use the Spektrum A6018 standard digital metal gear servos. The A6018 servos are a great value as they provide plenty of torque and speed to put the T-clips through its twisting maneuvers. The Spektrum servos were an easy drop-in fit to the pre-cut servo slots in the wings and fuselage. I needed a couple of six-inch servo extensions on the aileron servos to give me the proper distance for the servo leads to exit the wings





IN THE AIR

SIG took liberties to make the model fly and handle well while still capturing the look of the full-scale T-Clips. This was evident the day I took the T-Clips to the field. Once the standard ground checks and range checks are complete I always start out my test flights with a taxi test. The T-Clips handles both paved runways and grass runways well but I found flying from grass to be just a bit more forgiving. However, being a tail dragger you do have to be mindful of the motor torque and any crosswind on the runway. If you are not careful on the rudder you might find yourself chasing the tail right into a ground loop. So keep a soft touch on the tail but be ready for corrections until the tail is flying. Once the tail comes up, it's fun to advance the throttle to full and pull straight up for an extreme take off. With the E-flite Power 32 and an APC 13x6.5 prop the plane will go straight up and not want to stop. SIG got the power recommendation down right for this plane!

The T-Clips shares the same nice, thick, semi-symmetrical airfoil as the Four Star airplanes. This allows the plane to gently cruise around and slow down very well. Lazy figure eights along with touch-and-goes on the field can be quite fun with this plane. However, flip to high rates and punch the throttle and this plane is quite nimble. Rolls are quick and fairly axial for a high wing airframe. Loops from level flight can be in tight or huge with the right power system. My favorite was the flat spin. From upright, the T-clips will enter a very nice flat spin and with a little throttle and opposite aileron they can be nearly perfectly flat. Just don't forget to leave some time to recover, as you do need to fly out of the flat spin and not power out of it. Another fun maneuver with the T-Clips is the knife-edge pass. There is plenty of rudder on this plane to make knife edge passes the length of the field. The T-Clips is not a true 3D machine but you'll be able to push the aerobatic envelope pretty far.

The landing is another area where the plane shines. With the thick airfoil and a wide landing gear, the plane settles to the ground with ease and does not bounce around unless you really drop it in. In fact, if you keep a little speed and work the rudder and cross ailerons you can finish your mini airshow routine with a one-wheel landing just like Erik Edgren in the full scale T-Clips. Whether mild or wild, the T-Clips delivers an enjoyable flight experience.

and plug into a 'Y' harness. SIG also designed in a nice extension on the servo tray in the fuselage for mounting your receiver. The Spektrum 7010 receiver fit nicely and there were even slots cut for securing it with a Velcro strap. Once you get up into the nose of the fuse you need to take some time to route the wires around the battery tray area. The wires need to be taped to the sides of the fuse to keep them out of the slide area of the battery tray. I used some Blendederm hinge tape to secure the wires along the sides and away

from the tray. It gets a little tight but there is plenty of room if you keep things flat.

For the power system, I used the E-flite Power 32 brushless outrunner and a Castle Edge HV60 paired with a Castle 10 amp BEC. I preferred the separate BEC with a 10 amp burst rating when using the standard size digital servos. This made things a little tight behind the firewall but it all fit in the ESC tray area. The motor is mounted to a one-time adjustable motor box that is glued to the firewall with epoxy. While I like that they

Erik Edgren with the SIG model and the full-scale T-Clips



Erik Edgren and the full-scale T-Clips

I had the chance to see the full-scale T-Clips and meet Erik Edgren while visiting the SIG Mfg. annual fly-in. While at the fly-in Erik talked with us about the plane and his history in flying. Erik started flight training at the age of six by sitting on his father's lap and flying via the instruments as he could not see over the panel. By age eight, he was ready to solo and by the age of 10 he learned about spins which sparked his interest in aerobatics. He has flown over 150 different makes of aircraft as a private pilot, a flight instructor and as a corporate pilot.

The T-Clips was originally built by Taylorcraft in 1938 and wasn't modified into the clipped wing version until 1997. Erik has modified the T-Clips to include inverted fuel and oil and a smoke system. Unlike other clipped wing Taylorcrafts that are equipped with larger engines, Erik still flies his with the original-style Continental C-85.

Erik flies the T-Clips in airshows around the Midwest. His shows mix comedy with up-close and personal aerobatics. He even flies part of his routine inverted. His wife and son often travel with him and help out, making it a family affair.

At the SIG Mfg. fly-in, Erik got a chance to see the SIG model fly. He was quite impressed with all that it could do. He even commented a couple times that he wished the full-scale plane could do some of the more extreme maneuvers the smaller model could do. He also took some time to pose for some photos with both airplanes.

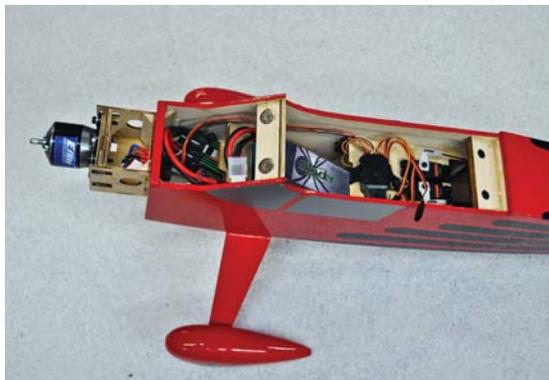
To find out more or to see where Erik and the T-Clips will be performing next, check out his website at erikedgrenairshows.com



include a motor mount that can be adjusted to your motor of choice it's a one shot deal. If you swap out to a longer motor this could cause trouble in your spacing. This is why I chose a quality motor with the E-flite Power 32 as I know I can easily find a replacement if something were to happen to the motor.

SIG decided to use a battery tray on the T-Clips to make it easier to secure the battery pack. This is a nice feature and since it sits practically on the CG it's easy to use different size batteries. The tray slides on a couple of rails and locks into place on a plywood tab. My only issue here was that I had to sand down the tab a bit to get the tray to slide without too much force. After sanding and with a few insertions, the tray is now working easily and the packs stay secure.

The fuse area looks full and tight but with proper wire control it all fits in there.



THE LAST WORD

The T-Clips is a nice mix of aerobatic fun with an everyday sport flyer. It would make an excellent aerobatic trainer for the pilot who has mastered the standard trainer but would still like a forgiving airframe. It builds fast and does not require top of the line servos and an expensive power system to have some fun aerobatic flights. Its size also makes it easy to have a built-up airframe that performs big without requiring an additional stall in your garage to store. SIG Mfg. is well known for great flying sport aircraft. The T-Clips shows that heritage well while pushing the aerobatic envelope and adding some scale looks as well. After a number of flights from a couple different fields I'm very happy with the T-Clips and I'm still finding out new things it can do. This is not just an everyday airplane but a plane that will keep surprising you with what else you will find out it can do. 🌀

CONTACTS

APC apcprop.com, (530) 661-0399

CASTLE CREATIONS castlecreations.com, (913) 390-6939

E-FLITE e-fliterc.com, (217) 352-1913

ERIK EDGREN AIRSHOWS erikedgrenairshows.com, (641) 660-5338

JR jramericas.com

SIG sigmfg.com, (641) 623-5154

SPEKTRUM spektrumrc.com, (123) 345-2345

SPYDER LIPO progressive.com, (443) 228-8379

For more information, please see our source guide on page XX.

SPECS

WINGSPAN: 60 in.

WING AREA: 630 sq. in.

FLYING WEIGHT: 4lb. 12oz.

WING LOADING: 17.37oz./sq. ft.

CUBE LOADING: 8.3

LENGTH: 43 in.

RADIO: Four channels required; Flown with a JR 9503 transmitter and Spektrum AR7010 receiver

SERVOs: (4) Spektrum A6180 standard servos

MOTOR: E-flite Power 32

ESC: Castle Creations Edge 60HV

DURATION: 8 min

BATTERY: Spyder 4S 4000mAh 30C LiPo

POWER CONSUMPTION: 47amps 685watts

We Used

RADIO

JR 9503, JRP2930



RECEIVER

Spektrum AR7010, SPMAR7010



SERVOs

Spektrum A6180, SPMSA6180



MOTOR

E-flite Power 32, EFLM4032A



ESC

Castle Creations Edge 60HV, CSE010010600



BEC

Castle Creations CC BEC, 010-0004-00



BATTERY

Spyder 30C 4000mAh 4S, 4S-4000-30C

