

THE BUILD STARTS NOW





The  F110-13 is in stores now and three kits have made their way to my door. One is already on my work bench being built, for testing and to finish off the F-1 series here in Victoria, Australia. The following will detail the build as they appear in step form in the manual.

I have been waiting for over a year now, for the release of the F-110 but SERPENT held off the release to do extensive testing to make sure the F1 was as near perfect as could be. Below is a short wrap up of the past year for the F-110

SERPENT HERITAGE:

Serpent started developing and manufacturing RC cars in the Netherlands in 1980, and has expanded its RC car program ever since!

Serpent has won multiple World Championships, as well as European, American and Asian Championship titles. [Michael Salven](#) is head of design for all on road Serpent cars.

Michael has been racing all his life, and has won World and European Championship titles, as well as many German national titles. His experience and knowledge has also been used to design this new Serpent F110 car, as the Serpent entry into the growing 1/10 Formula one class. Michael has worked together with Nacho Lopez and a number of test-drivers like [Jan Asmer](#) and [Ludovic Leflon](#) and a number of Asian drivers with Team-driver [Yuya Sahahsi](#) heading the team.



Michael Salven

RACING:

Serpent team driver **Jan Asmer** from Germany has raced the Serpent F110 prototype since the 2nd round of the ETS championship, and has won the 2012-2013 ETS title. The F110 prototype was also used at the TITC in Thailand with great success, and Team-driver **Yuya Sahahsi** won a recent F1 race in Japan with the almost final production version of the F110 car.



The  F110-13 and all your SERPENT needs can be sourced from www.walterrchooby.com.au the AUSTRALIAN distributor for SERPENT.

“LET’S BUILD THIS WEAPON”



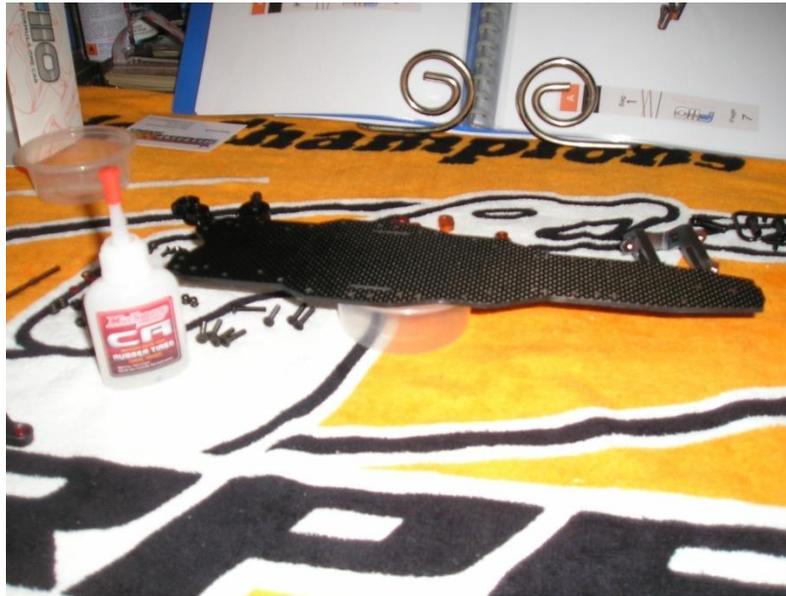


The SERPENT F110-13 Manual is to be downloaded from the SERPENT web page, easily read with full colour pictures of the processes you're undertaking.

I have built all the SERPENT Off Road Range 811T, 811B, 811Be and never have I come across any mishaps with installing or with any parts supplied in their kits, Top Quality___ that's it, and after opening the box that's exactly what I got - QUALITY!!!!



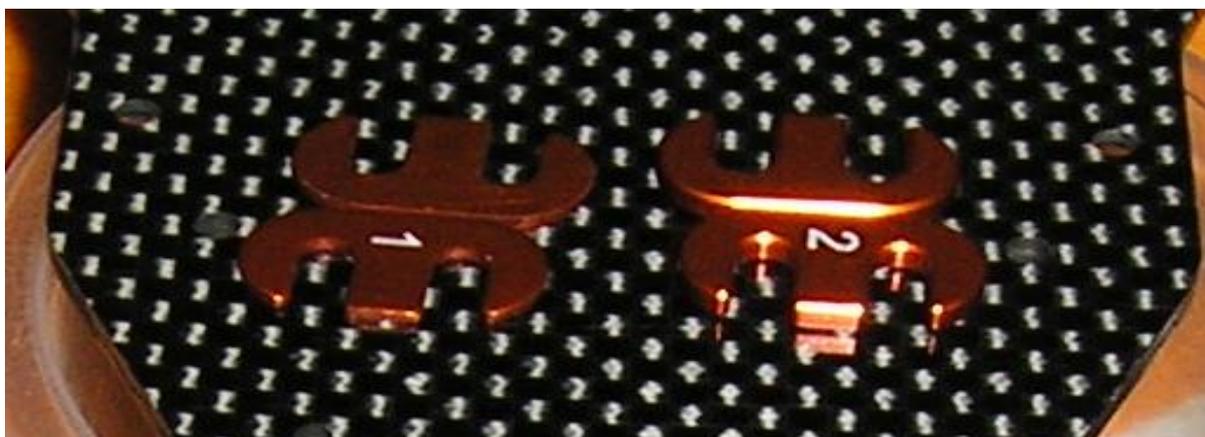
The first process was to CA glue around all the edges of the CF (carbon fibre) to prevent it from possibly splitting I found the best way was to pour a dab of the CA glue on to a piece of plastic cut off the parts frame, using the round end and run along the side of the CF, I coated it twice.



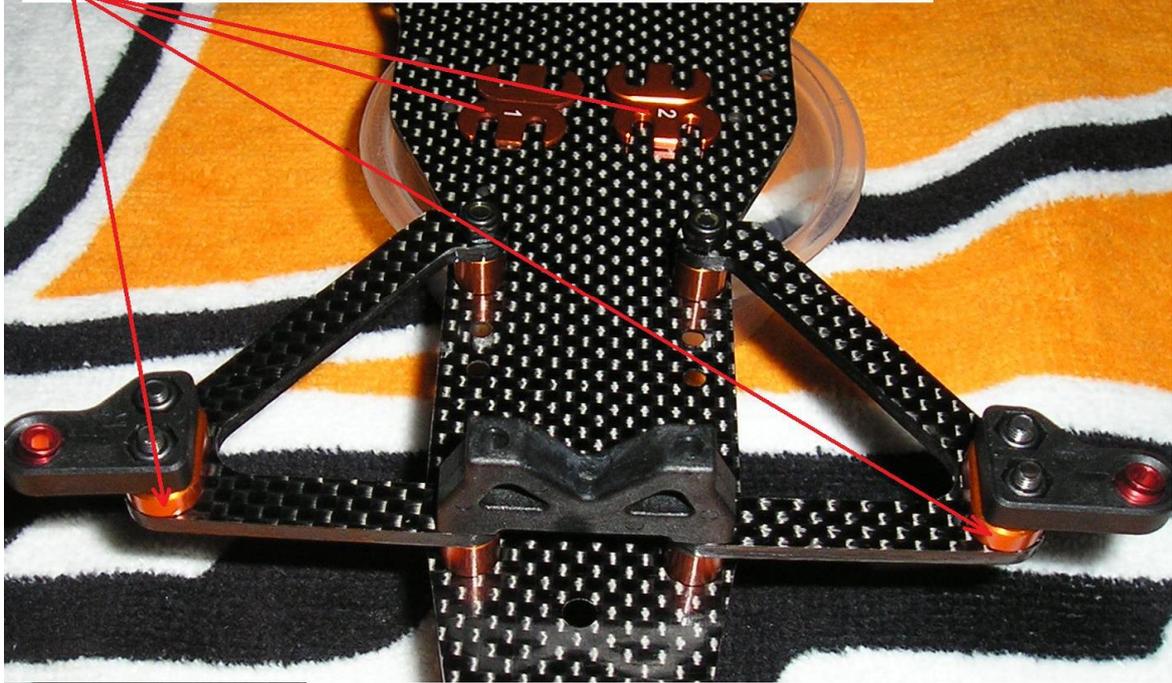
After letting it dry completely it was time to start putting it together.
The next step was to start with the front suspension components.



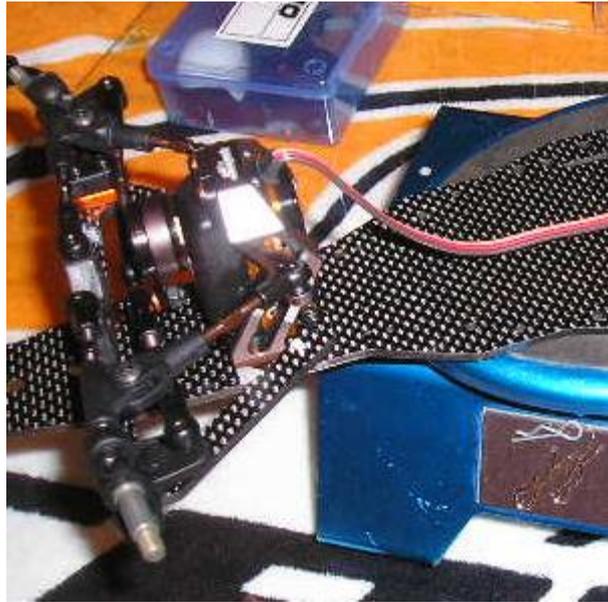
There are 3 different height spacers 1, 2 and 4mm this will give you a various range of ride heights, easy to adjust simply by loosening the two holding screws removing or adding spacers then re-tighten



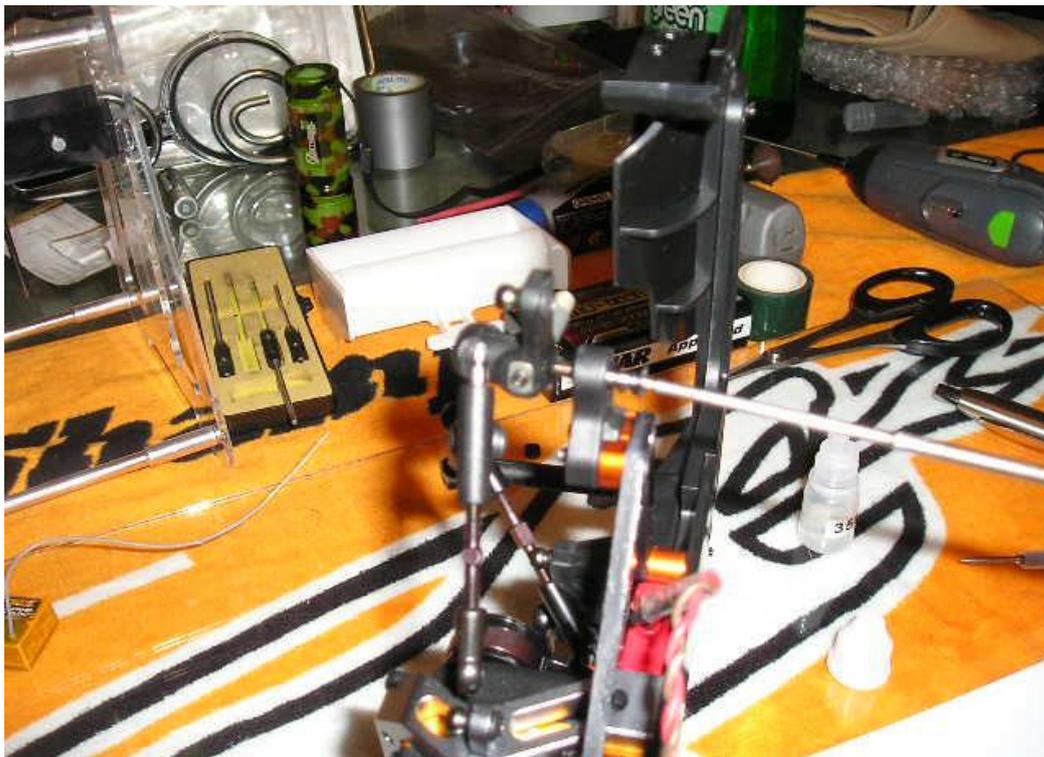
RIDE HEIGHT ADJUSTERS



Servo brace - the two bottom servo tabs of your servo need to be removed I cut them off with a hack saw then smoothed it off with the dremal.



When fitting the king pin use a 1.5mm tool in the end of the king pin and screw into the steering block, the manual doesn't mention this, don't want you using pliers or similar as this will damage the pin and bind the spring movement.



#HINT: I FOUND THAT TRYING TO FIT THE SPRING AND E-CLIP NEAR IMPOSSIBLE. FOLLOW STEPS IN MANUAL WHEN YOU GET TO THE STEP FOR FITTING THE FRONT SPRING: REMOVE THE KING PIN FIT THE E-CLIP THEN SPRING, FEED THE KING PIN THROUGH THE LOWER ARM BALL AND

SCREW BACK INTO THE STEERING BLOCK ELIMINATES A LOT OF PAINFUL FAILURES, NO LOST E-CLIPS OR SPRINGS.

Next is the rear pod and wing, I attached the factory wing for the build but I'll use the 3 Racing FGX wings as they were laying around may as well put them to use as they fit, just need to place an extra 3mm spacer so the wing mount clears the rear wing CF mounting brace





Above: Rear pod and factory wing ready to fit to chassis.

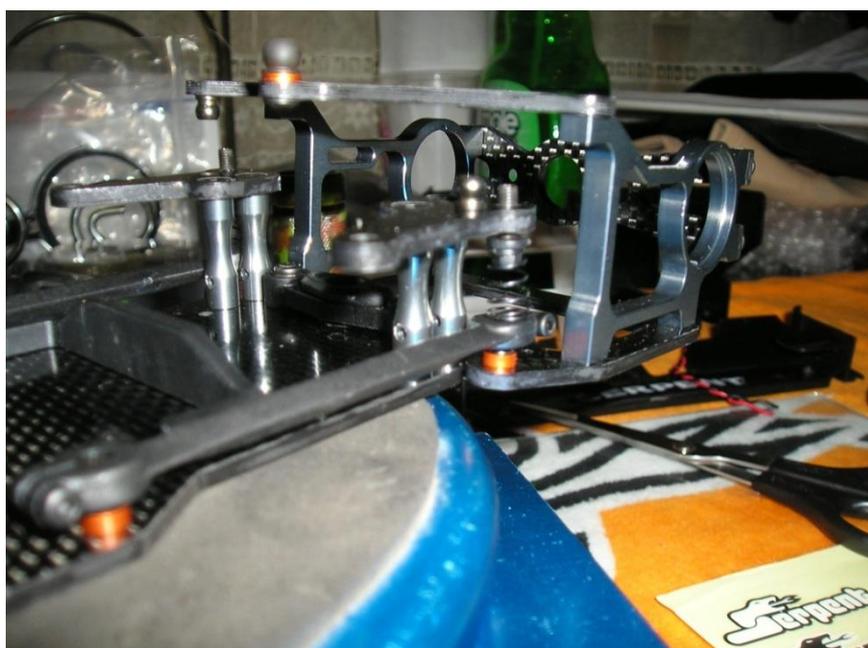
Below: fitted with the now standard pivot ball system.





The rear axle supports for the top deck and side spring installations were next on the agenda. The side springs are to be set at approximately 3mm down as that is where mine worked well. The manual has them tight against the top plate.

HINT: TURN THE CHASSIS OVER AND LOOK FLAT ALONG THE CHASSIS BASE IF THE POD ISN'T LEVEL ADJUST SCREWS SO THEY LEVEL THE POD





Centre spring mount, Mono shock spring, body posts and aerial are next and the rolling chassis of the SERPENT F-110 is nearly done. **With the spring piston I went with the two hole, the factory one is the 1 hole.**

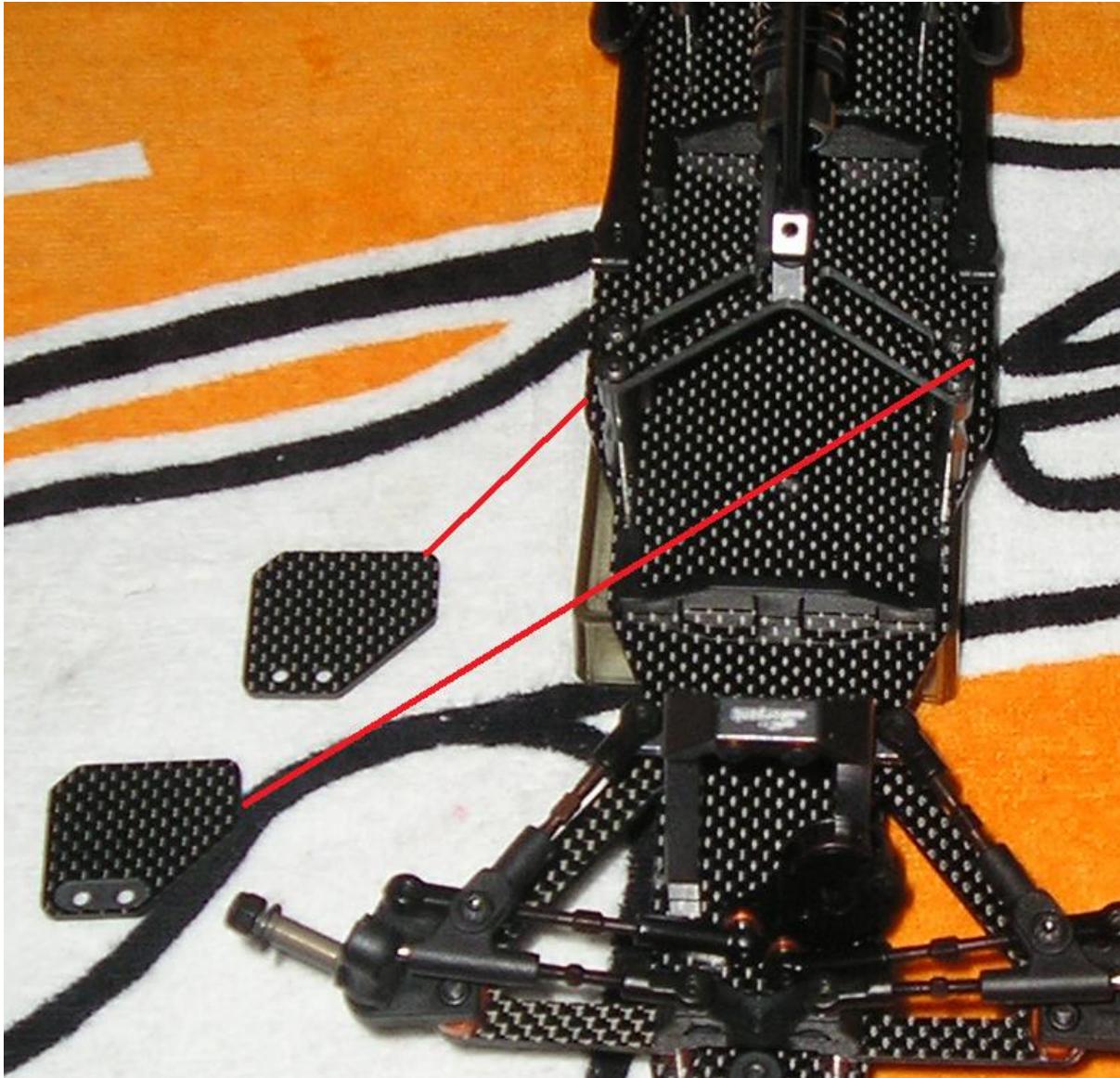


Front wing is next. The one shown fitted is the low down force type.

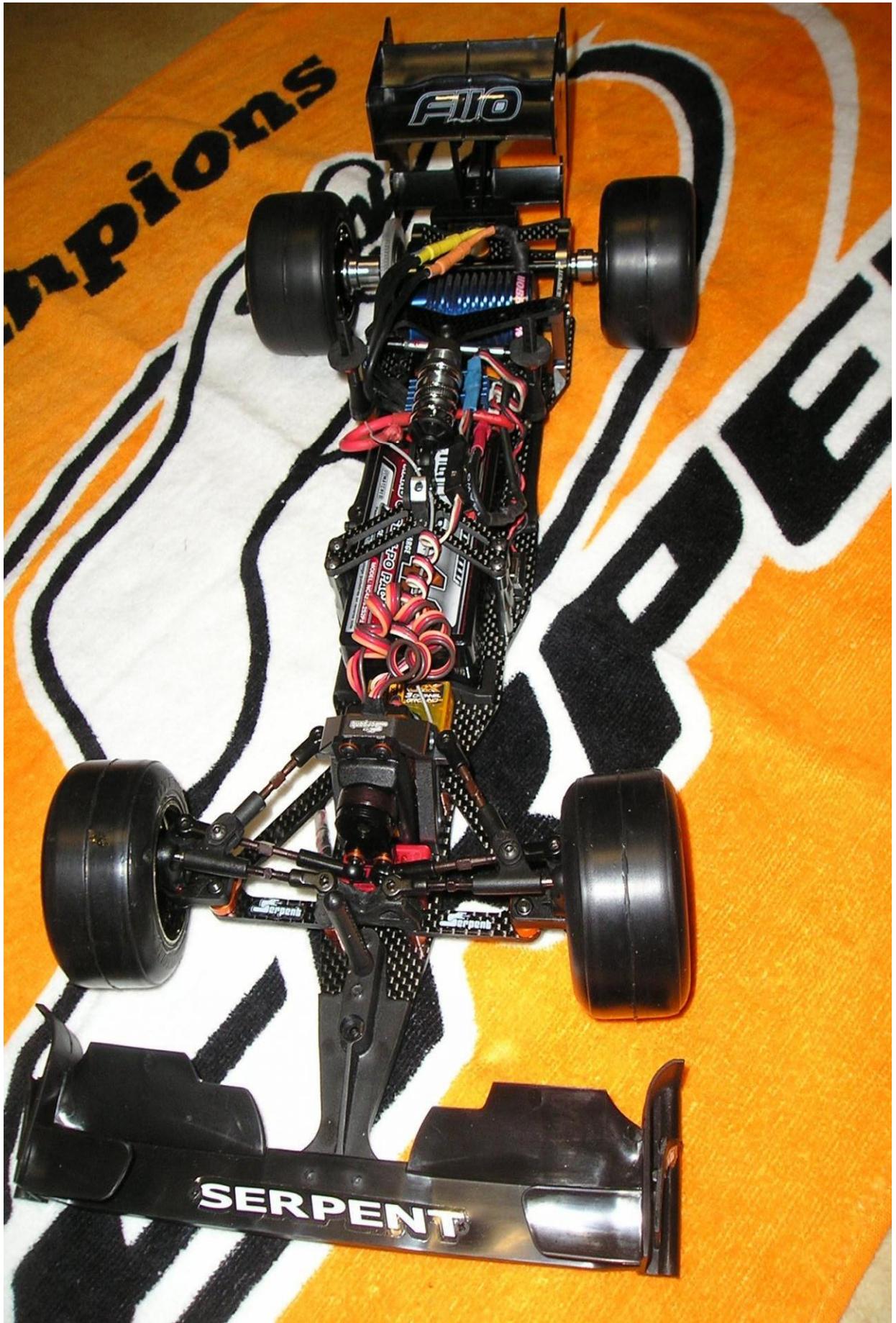


(THERE ARE 2 FRONT WINGS SUPPLIED BY SERPENT IN THE KIT, LOW AND HIGH DOWNFORCE MADE OF LEXAN SO THEY NEED TO BE CUT OUT CAREFULLY AND PAINTED WITH YOUR PERSONAL TOUCH)

The following picture shows the CF ESC and receiver plates that attach to the side, I chose not to use them as I'll be using the Shorty battery and there is no need for them with plenty of room to put electrics on the chassis



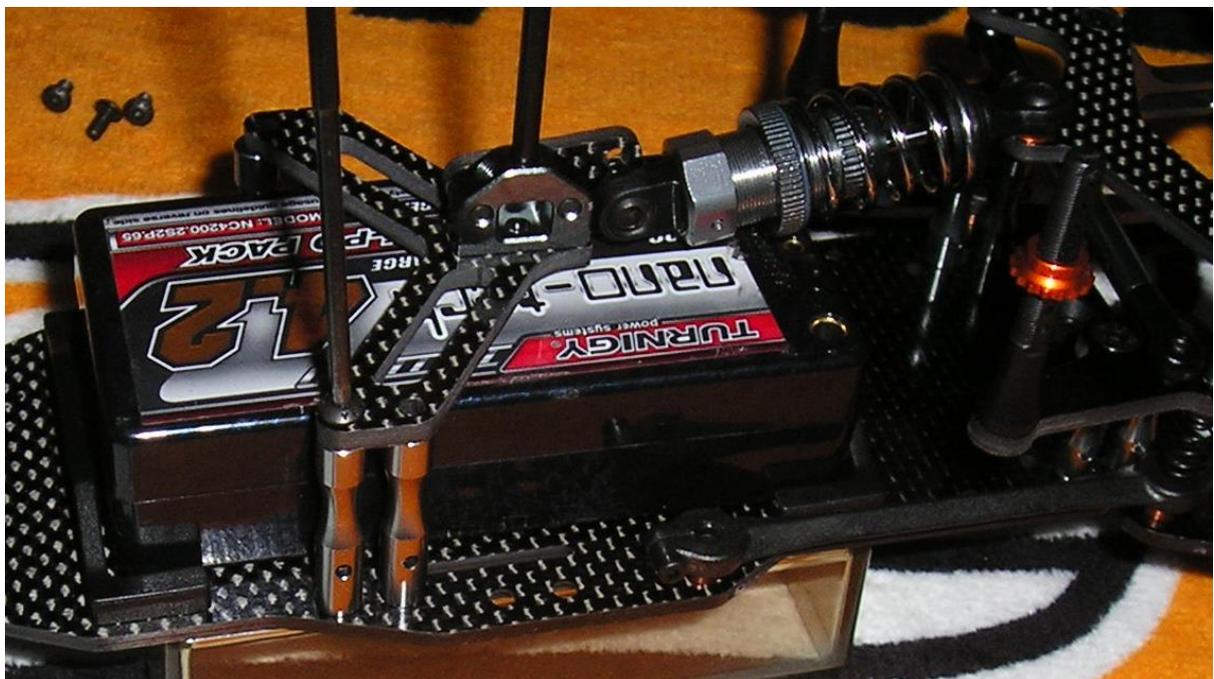
After all the Electrics, motor and Wheels are on the F-110 is ready for the next meeting which happens to be the VIC CUP F1 SERIES Round 3.



Now looking at the top deck it seems too much to remove the battery, when the spring and wiring are in place, this question has been asked on forums a few times since its release.

In the previous picture you can sort of see why the questions were asked. It does seem to be locked away and a headache to change, but looks can be deceiving. There would be 2 or 3 ways to change the battery but I'd say the easiest would be the following pictures, they will show the simplicity of the process.

Disconnect the battery and with a 2mm driver take out the 4 screws



Rotate the CF plate (with the spring attached) to one side then simply remove the battery.



Reverse process to refit battery



Now, to give you all a small rundown of what bodies will fit the SERPENT F110.

- All Tamiya F104 body kits fit but may need some slight alterations in the rear pod area
- TRG bodies and wings fit (in Australia these can be sourced through <http://topracing.net.au/shop/index.p...ewCat&catId=33>)
- 3 RACINGS FGX body (with the Shorty battery set up) and also the F113 sourced in Australia through either <http://www.nbhc.com.au/fgx-f-1-body-bdy-fgx/> or through www.feralbatteries.com/thumbnail.asp?file=assets/images/bdyf113_thumbnail.jpg&maxx=150

- Tamiya F103 bodies may be too bulky in the rear but that's just a visual preference I have.

As for any other bodies on the market try and see is all I can say.

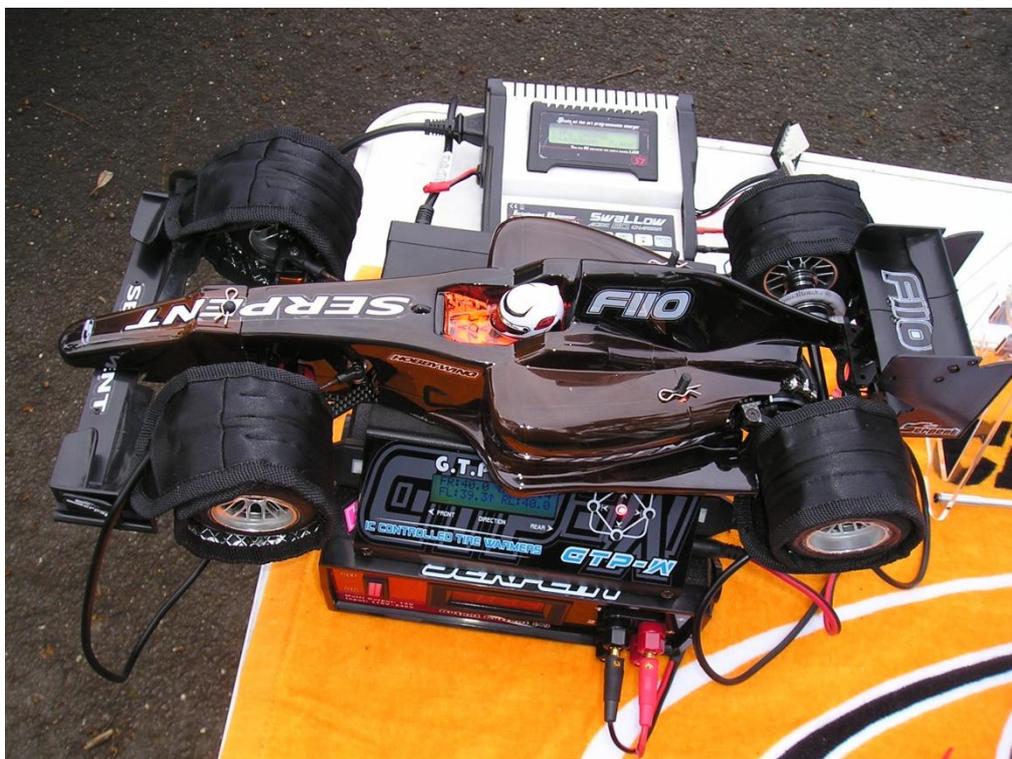
#HINT: I MOVED THE FRONT BODY POST TO GET MORE CLEARANCE OVER THE SERVO AREA.



Simple process drill a 2.5 mm hole in-between the bumper mounting screws, place a 3m x 10mm set screw half way in the drilled hole then fit the body post to the set screw.

I have used the SPEED PASSION F-68 body made for the F104 line from TAMIYA, it fits really well and you cut out the lines for the front suspension as they are marked out on the body for the F104.

The body posts are cut where the body sits when all squared up. There are also four different types of nose cones and 2 different rear air dam wings, not shown. I like the look it gives to the SERPENT F1.



Tyres: Now all RIDES on RIDE rims will fit, to use the Pit Shumizu grooved tyres you use the RIDE rim, but any other Pit F104 tyre is to be put on the f104 foam rims silver or black which are pictured below

Tamiya 51378 F104 Spare Wheel Set



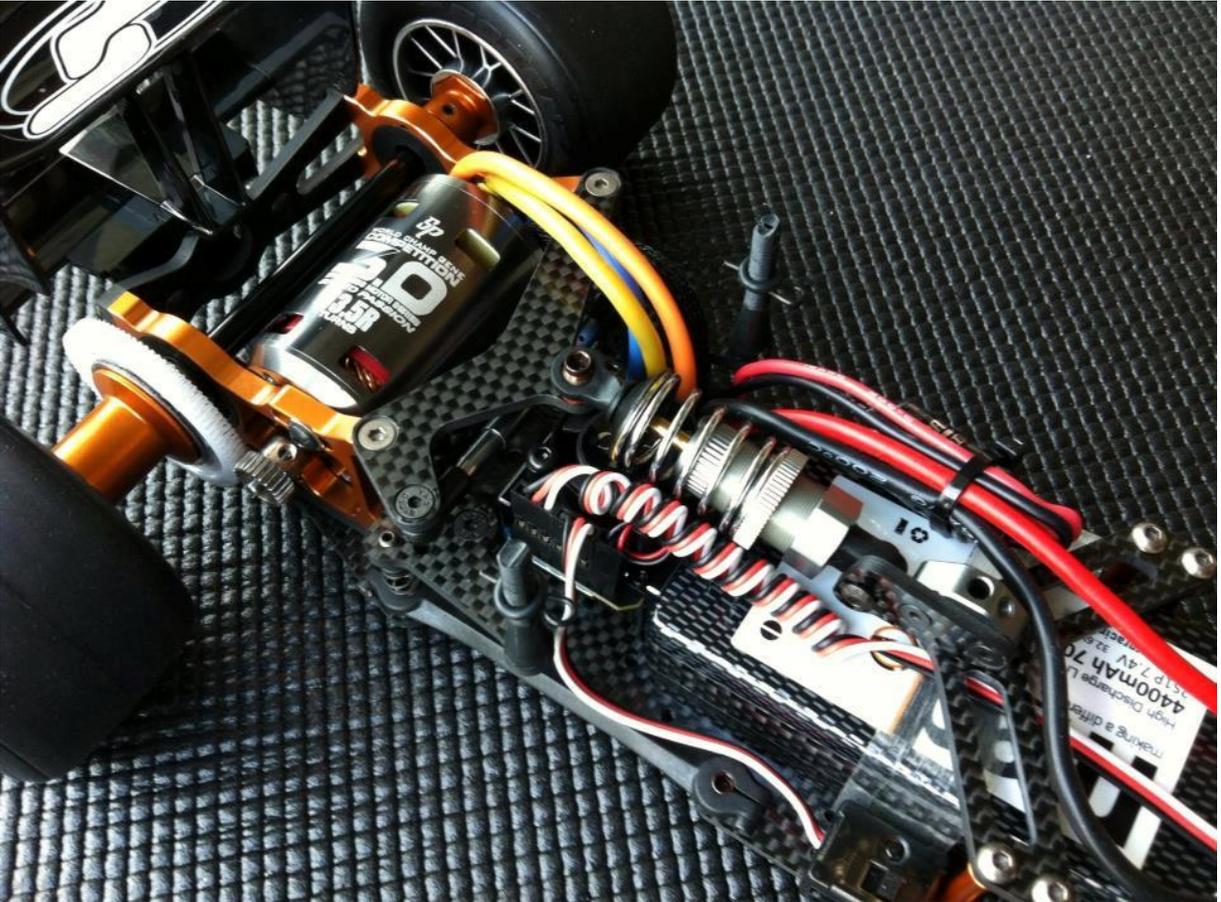
Fitting of the foam rim and a rubber tyres can be found here in pictorial or video format,

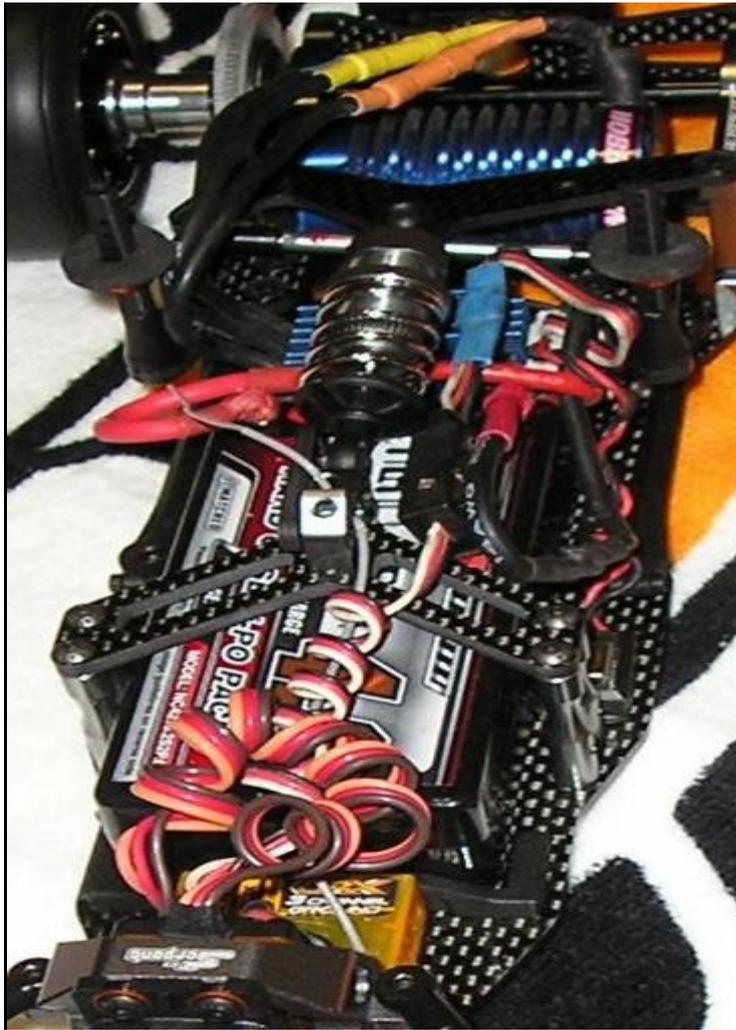
www.rcformula1.com.au/index.php/tech-tips/tyres

... as well as tips on choosing tyres for temperatures of hot and cold weather.



Well that is all for the build. Wiring up your F1 is up to you, remembering to lessen weight with minimal wiring allowing movement between chassis and rear pod and not to interfere with the rear mono shock. Photos of a few different wiring jobs follow to give you an idea. Total weight for my race F110 is 1093gr great race weight.





Enjoy your build and as usual

-DON'T RUSH TIME IS ON YOUR SIDE

- HAVE EVERYTHING YOU NEED BEFORE YOU START. NOTHING IS WORSE THAN WAITING FOR SOMETHING HALF WAY THROUGH A BUILD

- READ AND STUDY EACH STEP CAREFULLY

- THINGS TO HAVE FOR SPARES IN YOUR PIT BAG

* Front arm components lower and upper

* Spring sets

* Bearings

* Spare screws

* Spare rod ends (Being honest here, they do seem on the brittle side, excessive force could crack them, and they may wear quicker due to the hard feel of them, time will tell)

* Front lexan wings if you're going to use them, lexan wings can be torn up or off in race conditions

The build has been finished AND it was a mission. Receiving the kit on the Wednesday 31/07/13 while away with work, beginning most of it on Friday 02/08/13 and completing Saturday 03/08/13 at about 10.30pm, including paint, which turned out surprisingly good for a 10min job, more detailed photo's of the paint here <http://rcformula1.com.au/index.php/australian-news/cup-series/386-2013-vic-cup-series-round-3-results> on race day the 04/08/13

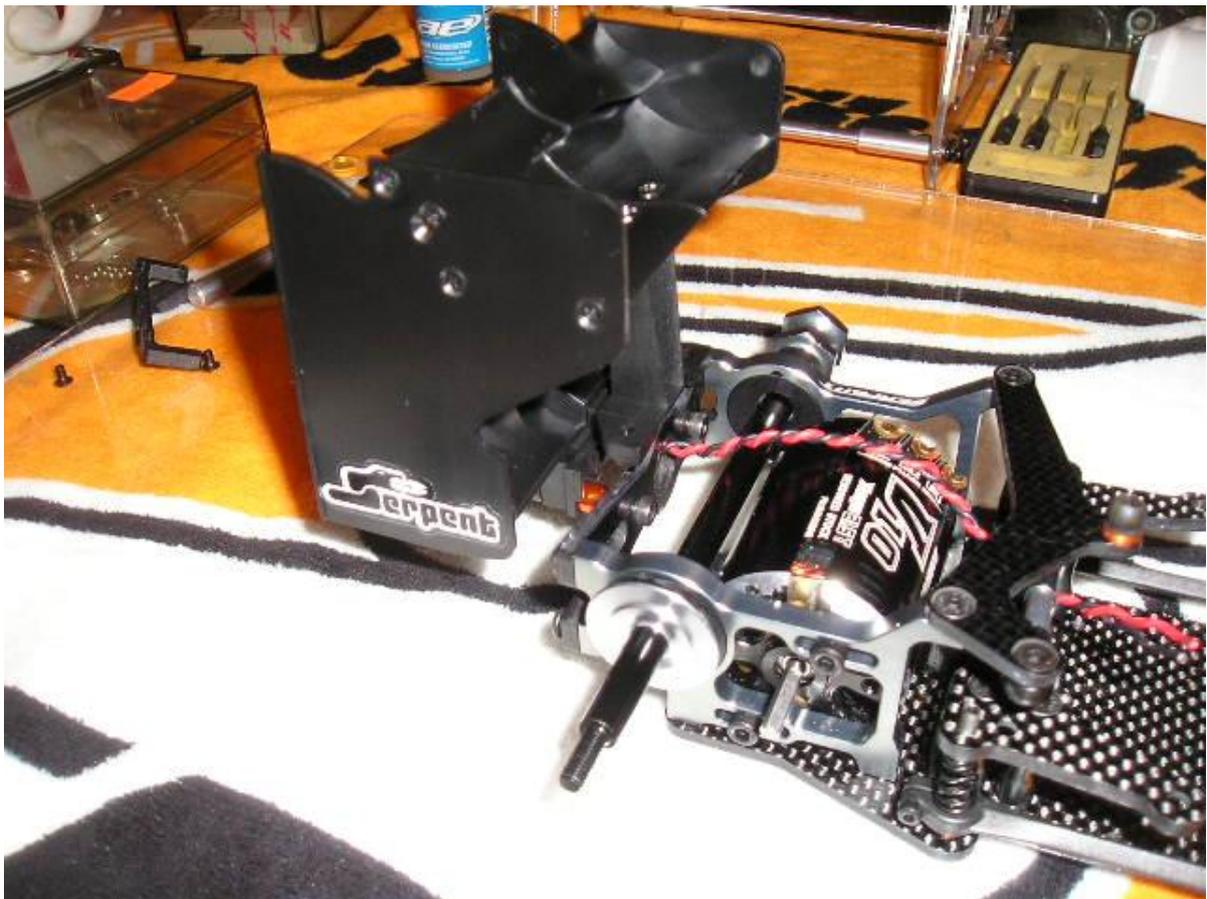
The only test run the car had was on the kitchen floor, so as far as testing went that was it. Tomorrow will be full of unknowns, new car, new track, new surfaces, new motor, I couldn't be any more behind the eight ball if I tried.



Let's go racing and find out what hidden secrets she holds.

RACE DAY

The first race was on Sunday 04/08/13 and finishing the night before had left me with the 13t as the motor as I was too tired the night before to put in the new HOBBYWING, picture in while building below.

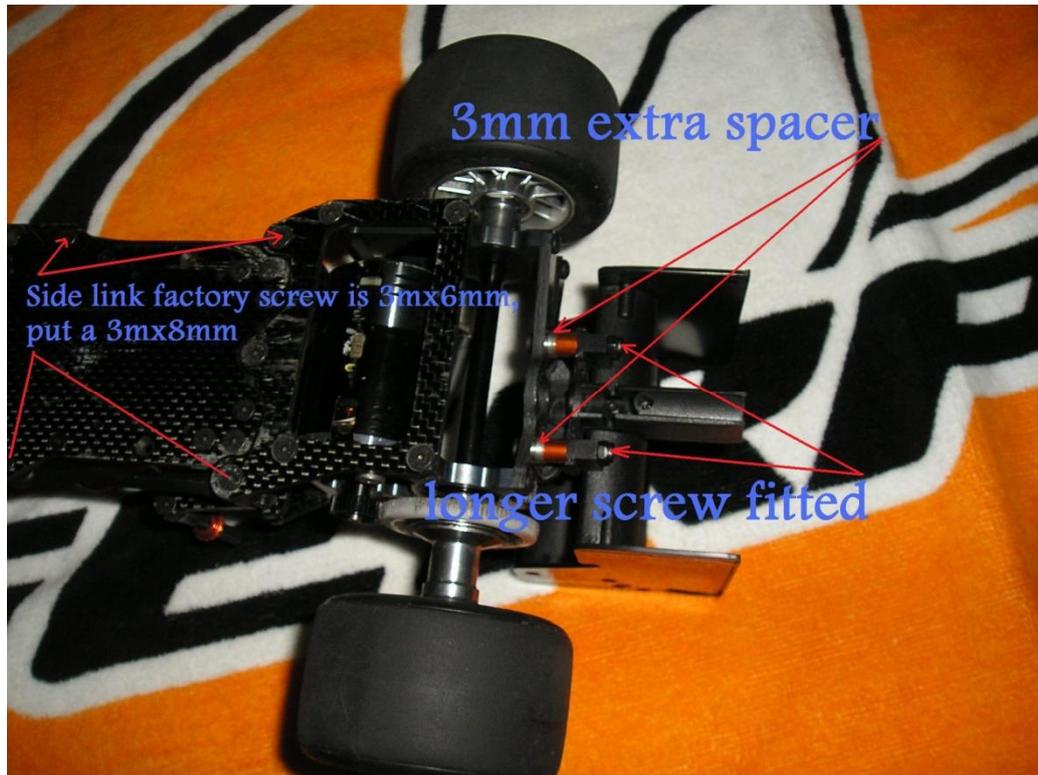


Last year motors were open using a handicap system and my 13t motor would have simply given me a 2 point penalty.

In the back of my mind all the way to the track in the morning was the thought of the 13t in the F1, it's not legal and I'll be disqualified I thought, it's not the same as last year (in 2013 the Vic Cup Series is run to the National F1 Rules with 21.5t blinky motors), so getting to the track I had to change to the 21.5t and finished 10mins before race start, so still no track time. OH WELL time to jump in completely blindfolded!

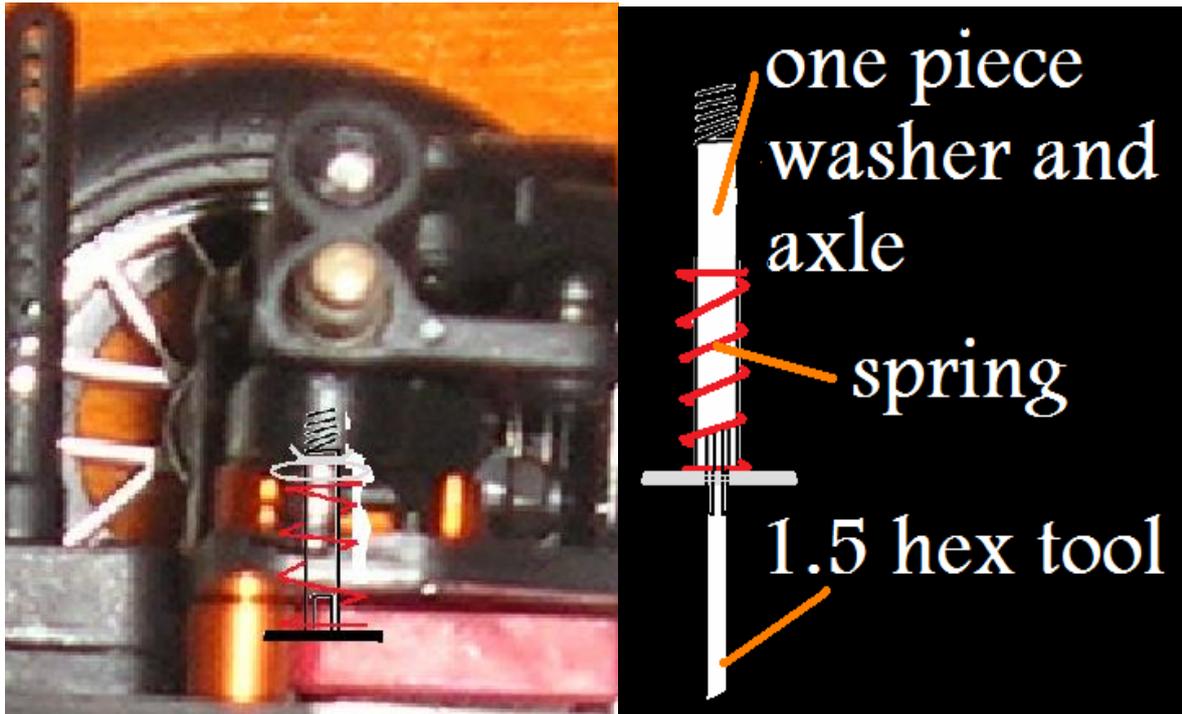
The SERPENT held its own on a damp cold track; I was very impressed with its performance especially coming straight off the work bench onto the track.

There were some screws that worked themselves loose and I had a wayward e-clip release the front spring, BUT THAT'S RACING NOT THE PRODUCT.



The side screw for the links came loose I have now fitted 3m x 8mm screws, there is still enough room in the ball to tighten with your 2.5mm tool, other screws that came loose were the top arm screws where they attach to the servo brace.

As mentioned the e-clip went walk about. I was never a fan of the e-clip it would have been better to have a king pin with a flat end, and to change would be to do as I have hinted in the build, kind of like this quick diagram:



You get the idea I hope.

Other things changed were to lift the ride height 1mm to 5mm in the front and 5.5mm in the rear, this will change again as my local track is smoother than the weekends meet, so I'll drop it back to factory settings at 4mm front 4.5mm rear..

Rear mono shock oils will more than likely come down from the factory oils of 800wt to maybe as low as 650wt, Jan from the factory team in Europe went to 550wt so there is plenty to play with at this stage.

The steering on the F1 was amazing to say the least, you could go to the point of too much at times, I have the toe out at -1.5 degrees. I may try only -1 next meet and maybe slow the radio's steering exponential down a touch as well. All in all I was very pleased with the first run and look forward to next weekend at TFTR

I'll update any changes I make or things I come across; you can also follow the SERPENT F1 forums and general F1 information on these sites below,

<http://www.rctech.net/forum/australian-racing/748956-serpents-new-f-110-a.html>

<http://www.rctech.net/forum/electric-road/519505-serpent-1-10-f1.html>

and of course <http://www.rcformula1.com.au>

Information on this rapidly growing class is becoming more common and easy to source worldwide.

Enjoy your F1 and let's keep it as ONE class with real close hard fought racing, in a fun friendly atmosphere.

CHEERS WILL



THANKS MUST GO TO WALTER AND JAY FOR SUPPLYING ME THE F110

www.walterrchobby.com.au