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FEBRUARY 2018 NEWSLETTER

NEWS NEWS NEWS NEWS NEWS NEWS

sideways SLOT CARS by Racer

We are pleased to announce that we have resumed the distribution of Sideways brand slotcars, parts and accessories in New Zealand. The first order includes some back catalogue of cars, and a number of new offerings including their first GT3 model, the Lamborghini Huracan that has received great reviews in magazines and on forums. We also have their very good oil and grease back in stock, and assorted parts for the GT3 and Group 5 models.

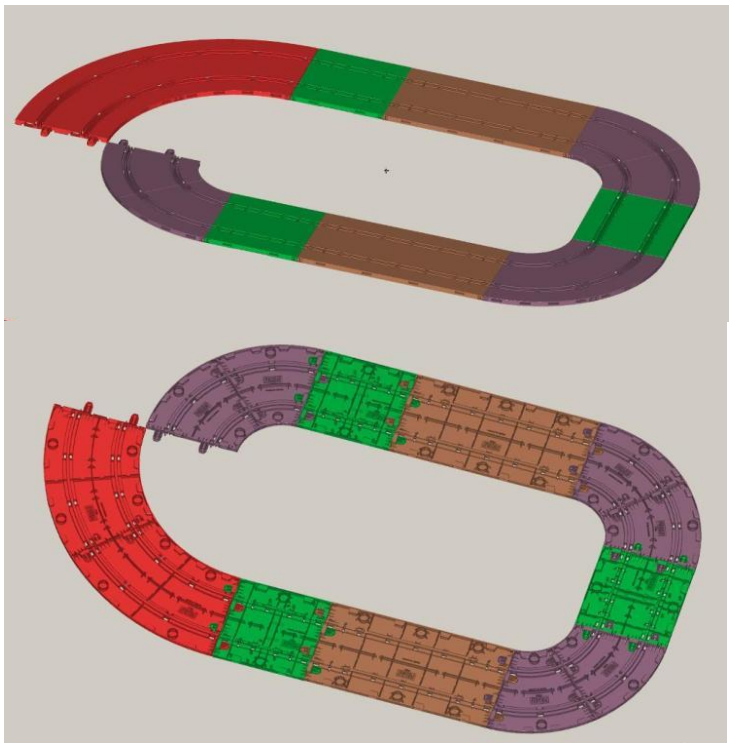
POLICAR

Those on the slot forums, and those getting overseas newsletters may already be aware, but many won't. The big news from Policar at the end of 2017, was that they are to begin making their own track system. I saw prototypes last May at their offices in Italy. They have taken a lot of time to work through the good, the bad and the ugly of other systems; keep the best, and have added extra features Here's a summary.

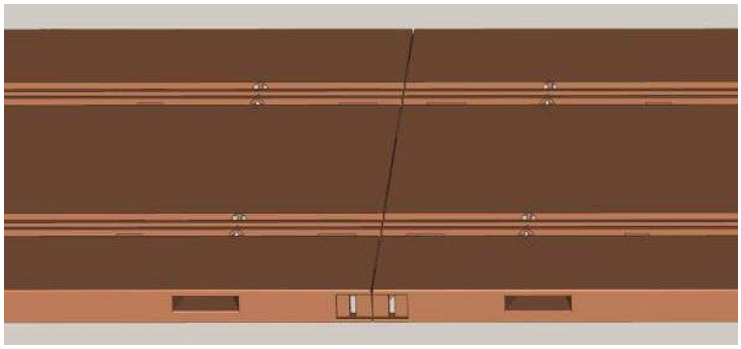
Key ingredients are:
90mm lane spacing - wider than Scalextric, for non-mag racing
Adapters available to Ninco track used in European clubs
Four radii of curves for up to 8 lane racing, and corner variety
A rigid plastic for a very flat surface
Box section rail connectors for best electrical connection
Connectors that are easy to use, but lock and won't move or pull apart in use
Additional side-lock tags to connect multi-lane tracks & borders
A wide 60mm border for non mag racing
Borders and side fences have a secure clipping system
A channel under the track for additional power tap wires
Digital track pieces are being designed - watch this space as Slot.it are a compatibility leader in the digital field

From the pen of Maurizio Ferrari of Slot.it and Policar

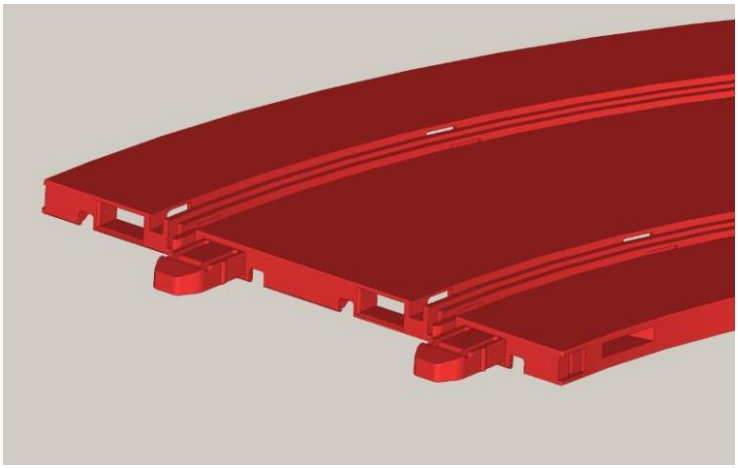
For Policar we must distinguish between the old Policar 60s ones, and what later became known as 'Polistil'



From the 'old' Policar ', which had a distance between the lanes of about 7 cm, we took example from small clips that allow you to lock the side pieces, and roughness, which is more similar to that of the Ninco track. Here you can see the side of the clip area.

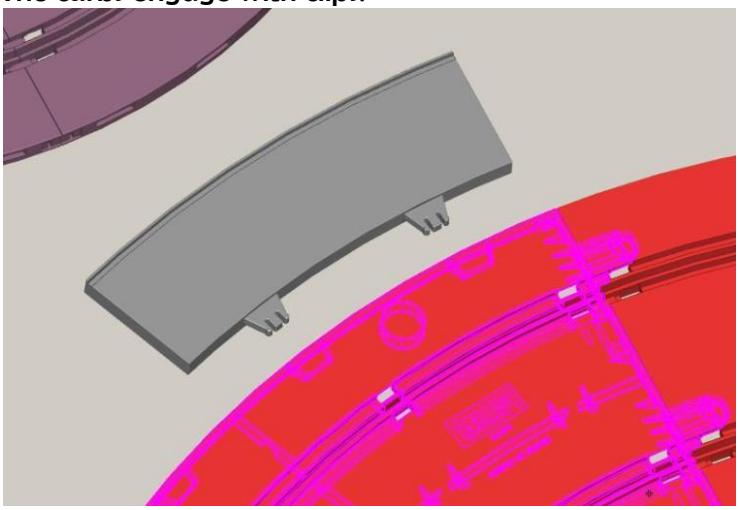


The track is similar to the original Polistil (90mm) made of rigid material, and with frontal plastic connectors.



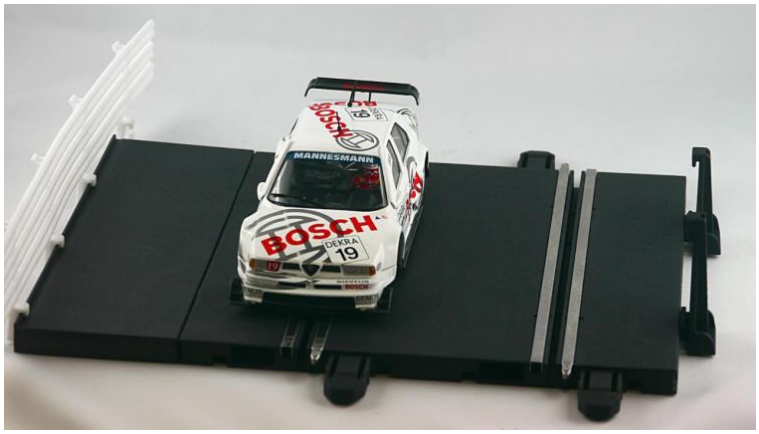
Beside the connectors you will see four channels where you can pass additional wires to carry extra power cables under the whole track. Of course we have studied the contacts in order to have a good connection, but the current never enough, especially on large club tracks with the digital systems.

The curbs engage with clips:



The same joints are used to hold together, if desired, multiple lanes.

Notice in particular:
1 - the coupling to the base of the guardrail, which gives an excellent impact resistance. Even the coupling system between the ends of adjacent guardrail works very well.
2 - the width of the curb 60mm



Maurizio continues - We have made many tests before opting for the textured track. The smooth track is very good, as long as there is a little dust - but at that point it becomes a skating rink. We hope to have made the right choice, it was a difficult decision
First video has just been unveiled at the Nurenberg World Toy Fair.

Also unveiled at Nurenberg yesterday were three new moulds to come in 2018
A Masarati GranTurismo GT3 from Slot.it

A Ferrari 330P4 from Policar

A Toyota GT86, and a generic modern F1

Events we know of in 2018

A quick overview of what we know of coming in 2018 Do let us know if you are hosting race events, open days, and anything else that you would like promoted

ATCC/Bathurst Proxy Series
Constructor series, for Australian Touring Cars, entries closed as field is full Organiser Dave Carter Follow the Forum thread on Auslot as the cars progress through the rounds

NSR Challenge
The annual premier event in Nelson
Build and run your NSR classic, for individual drivers
11th to 13th May
at NSR club Nelson
Contact Tony Cook hotslots1@outlook.com

RTR Nationals
Class racing Nationals individual championship for GT1, NSR Classics, Muscle car and Group C classes
27th to 29th July
at Pitlane Club Dunedin
Rules **here**
Contact Tony Cook hotslots1@outlook.com

Group 5 Proxy Series
Our second half of the year constructor series, for modified Group 5 cars. Entries open May
Contact Dave Carter mini70clubman@gmail.com


Slot.it Shootout – The DTM Classic

A weekend event in Hawkes Bay, build, bring and run Slot.it DTM inline saloon cars, for individual drivers
Date to be finalised next few weeks but either:
31st August to 2nd Sept. or 7th to 9th Sept
at Thunder Road Raceway, Hawkes Bay
Contact Mark Burgess sales@slotraceshop.nz

Thunderslot RTR Enduro
A very special event which will include overseas drivers and the owner of Thunderslot
12th to 14th October
at NSR club Nelson
Contact Tony Cook hotslots1@outlook.com

New Cars & Other Stuff

The second **March 701 by Policar** arrived in the last few days. Absolutely gorgeous is all I can say.

Motor: Slot.it PMX01 FF-030 24,500rpm mounted as inline
Axle & Gears – 2.38mm (3/32nd)
Gearing: Robust Hewland style 3 gear-box to provide torque & braking unique to Policar F1 cars

We now have all available Policar F1 models in stock

Group 5 cars by Sideways

Just a selection, go to Sideways cars to see the range

Lancia Beta Montecarlo Martini 1981 Le Mans SW54

Porsche 935 K2 Marlboro Cup – Zolder 1978 SW55

BMW 320 Warsteiner SW50

These all have the same mechanical specification

Motor: Slot.it Flat-6 20,500rpm 200 g/cm torque 10.25 watt, mounted a/winder with adaptors for 0.5mm and 1.0mm offset

Axle & Gears – 2.38mm (3/32nd)

Gearing: Crown 28t (GA1628-pl) – Pinion 11t brass

Has adjustable height front axle – requires optional M2.0 Hex screws, not supplied with car

Sideways Lamborghini Huracan

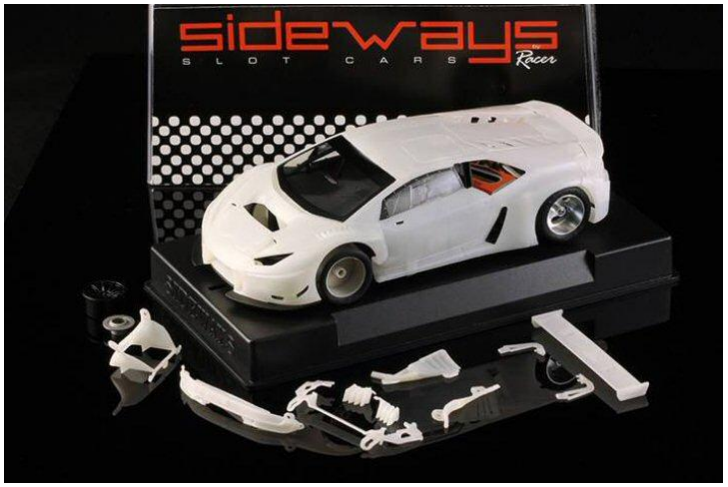
As pictured above, the Huracan comes with a new chassis, pod & motor system, developed by Sideways

Motor: Baby Raptor 17,000rpm 245gcm for 10.4 watts @12vdc, angle-winder with offset adaptors

Axle & Gears – 2.38mm (3/32nd)

Gearing: Crown 28t (GA1628-pl) – Pinion 11t brass

The White kit is also available



In all we have a dozen new car offerings from Sideways, so check them out in the cars section

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We also have in stock the hotter Raptor motor at 21.500rpm and 350 g/cm torque for 18.8 watts. – You would only ever want this on large tracks.

Sideways lubricants are back in stock as well

We now have NSR cars and some parts in stock, and will be carrying Thunderslot as well as new models come available as resellers for the New Zealand distributors of both brands, Tony Cook of Nelson Where we can, we are offering both angle-winder and sidewinder versions.

An Event - The Slot.it Shootout

This will be a weekend racing event in September for individual competitors. We want to it be something anyone can come to, feeling they have a chance, if not to win, at least to enjoy competing at; and feel comfortable in the environment.

It will be held in Hawkes Bay at Thunder Road Raceway, using the new Slot.it DTM Saloon cars
More details next month

Tech Article - Glue and True Tyres Pt. 1

There are many ways to skin this possum, so if you are just learning, use this as a quick-start guide, not a Bible.

The reason we glue and true tyres - especially for wood racing, is not just to make them as perfectly round as we can, but also to eliminate deformation that occurs when the centrifugal force created by rotation. - Well some of it anyway.
Apart from Silicon tyres which aren't used much in NZ, all the urethane, Ultragrips Supergrips, Slot.it N22 and F series, ScaleAuto "soft" - are all some form of rubber for our purposes.

But there is certainly a wide range in formulation, as some tyres need more care in glue used, especially the NSR tyres.

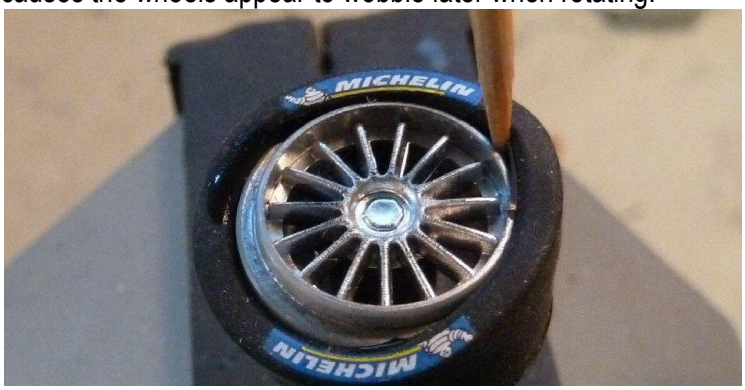
If you use a highly reactive quick set glue, tyres sometimes split; very often at the mold seam which is the most vulnerable point. Often people say the tyre was faulty, often, it is a glue that is not really suited to the formulation.
Cheap superglues from the $2 shop should be avoided, as should better quality runny superglues which give instant bond. There tend to be the ones which cause splitting - and they are harder to work with anyway.
I have used several **slow set "gel" superglues** and as a starter list, found these suitable on all kinds of tyres.
Alteco Gel - Mitre 10
UHU SUPERglue - Warehouse Stationery and others
Loctite control - Shop around for best price
IC2000 rubberised - From a couple of USA suppliers
Some racers use a rubberised sealant for windscreens.

The key thing is to have a glue that is not runny, is easy to apply with a toothpick or pin, and slow setting to spread, reposition and wipe if needed. I like to mount the wheel to be glued onto an axle, so it is easier to handle, and if you have a vise, to mount the axle, so both hands are free.

If I have a glue with a really fine nozzle like the Loctite or IC2000, I can apply it with good control directly from the bottle, but for small tubes which have wider nozzles, I dot a small amount of glue onto a piece of cardboard, then pick a bit from there with a toothpick or pin and apply it to the wheel surface.

Front wheels - yes, I glue and true them too. As these are usually a stiffer rubber, I can often peel back the outside edge to be glued first, and peel it back to sit inside out on the centre of the hub, so the entire outer shoulder of the hub is exposed. That enables me to apply a smear of glue around the entire circumference of the hub, then simply flip the tyre edge back over. Flipping the first bit causes the rest to follow suit and the whole thing goes into place on the shoulder of the hub.

With a slow set glue I can sometimes rotate the tyre on the hub before the glue catches. This helps both to spread the glue, and to ensure the tyre is sitting evenly, not off-centred which causes the wheels appear to wobble later when rotating.



I then leave it to sit a few minutes and repeat the process on the other hub/tyre. Once the glue has set I repeat the process on the inside edges. I don't bother trying to glue the centre of the hub for fronts, as they are stiff enough not to deform at normal rotating speeds.

Rear Wheels - As the rear rubber is much softer, the invert/peel doesn't work, so I simply fit the tyre to the hub, and check that it the outside edge appears to sit evenly all around in relation to the outside edge of the hub. Note: Slot.it tyres have a narrow side and a wide side. The side with the identification letter has a wider shoulder. I always put this **wider shoulder to the INSIDE** so that the outer edge overlaps the edge of hub little, or not at all, as this is the real load bearing edge, and we want this outer tyre edge fully supported by the outer edge of the hub. See the comparison below

Left - wide shoulder inside **Right** - Wide shoulder overhanging

I then use the same glue application method as for fronts from a **fine nozzle, or with a pin,** lifting the tyre from the hub edge at one point, smearing the glue, and working my way around in several bites. I **always glue the outside edge first**. That makes it much quicker and easier to work around the less critical inside edge, so that if I spill a little on the side of the inside edge, it doesn't matter too much.
As soon as I have been all the way around, I try to **rotate the tyre on the hub** before the glue takes - sometimes I can, sometimes I can't I then **roll the hub** on the bench to help ensure the glue is spread evenly and there are no high spots.
Sometimes, despite every care, a tyre will split when glued. If this is just along the sides, I have had good success in repairing the damage, just by pushing a little glue inside the split with a pin, and holding it closed under pressure until the glue has taken. Then I can true them as normal, perhaps with a little light sand to the outer surface and the edge profile.

Next month in part two

- Types of lathe, ways to use for one or two tyres at a time, speeds and heat
- What to do if a tyre starts to "ball up"
- Treating if allowed under your club rules – what to use and how

Tune and Track Test ScaleAuto Porsche "Racing" Version

Last month I took this *Home Series* ScaleAuto Porsche 911 GT

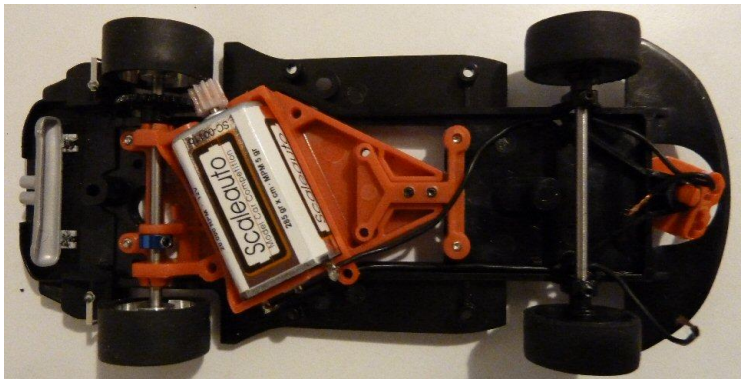
And gave it the bench tune treatment.

This month I open up the "Racing" version of the same car.

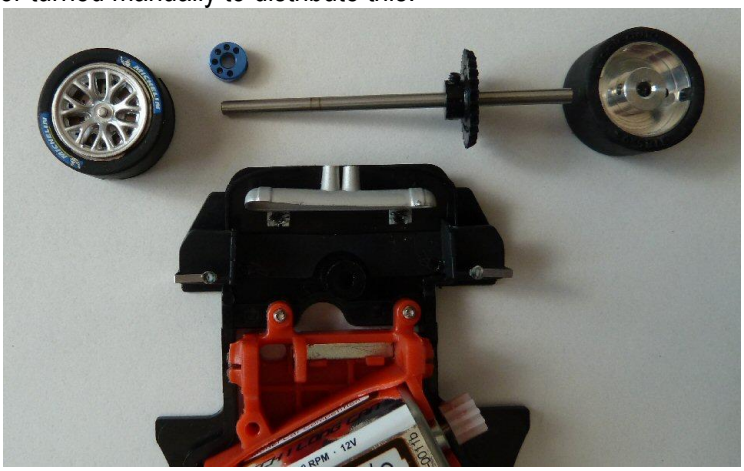
So what is the difference, what do you get extra for that $20?

The front hubs are press-on plastic as before, but the rears are alloy with M2 grubs. Both pairs of hubs measure 17.2 x 8 mm at centre, and with original tyres fitted, measure 19.65mm O.D.

This is a podded angle-winder powered by ScaleAuto's 20k standard FK-180 motor that has 285g/cm of torque - which equates to about 14 watts power. - As comparison the Slot.it yellow can Flat-6 fitted to their GT and LMP cars is 21k with 200 g/cm, torque for 10.5 watts; the standard NSR King is 14.4 watts, - (21k but slightly less torque), and the Slot.it Boxer-2 is 21.5k with 340 g/cm torque for 18.3 watts. So it sits mid range among GT cars for overall power, and should be legal in most clubs GT classes - do check your rules.



I would describe the chassis as "medium", the pod is rigid. The chassis exhibited a bit of end-to end bow ex the injection molding process; so I did the usual, giving it a hot water bath on the magnet plate. This only needed one pour of boiling water, as it came out pancake flat once the water cooled. Gearing is 11:27, In similar fashion to the Home Series car, red grease had been applied to the gears, and the motor either run, or turned manually to distribute this.



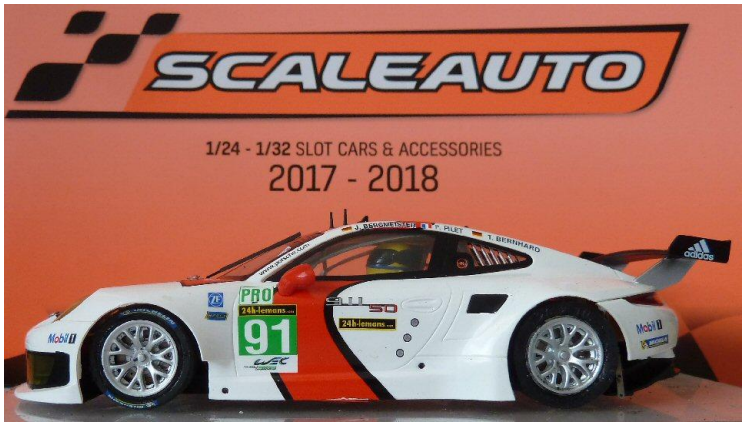
There is a fair bit of substance in the pod design where the corner of the motor mount section flows into the drive side axle bearing holder, and the motor is fixed into the pod with screws both sides. I am hopeful this will work well on high grip tracks without additional bracing. I have removed the small magnet that sits at rear of pod below the axle, as it is adding more weight at the back of the car, and angle-winders are already more tail heavy than is optimal on most tracks for wood racing.

On plastic, you probably want to retain the magnet, as the motor is closed-can with almost nil down-force (5 g/cm)
A light-weight stopper near right rear wheel the prevents lateral movement and ensures the gear mesh doesn't alter once set. When unboxed, there was about 0.5mm lateral movement. When I saw Europeans setting up cars for plastic track I was told this is normal; preventing anything locking up, and helps with the cornering. - I don't like this arrangement for wood racing, I adjusted it to just free spinning, ie no movement at all.

The guide is "stock" similar size to those fitted to most other good hobby brand cars as standard. Unlike the *Home Series* car, this had no axle height inserts. Instead, it came with grub screws already fitted as per our more common tuning conventions. The braid was that hard stuff for plastic track, so I replaced that with soft 0.5mm braid. This left almost a mm of naked guide out of the slot with the car viewed side on, so I was able to raise the axle and drop the nose by adjusting the grub screws so the guide sits full depth in the slot.
Getting your guide as deep in the slot as possible helps both with cornering stability, and to counter the "nose lift" which occurs when these more powerful motors accelerate out of corners.
I have replaced the rear tyres with ScaleAuto SC-4728 "20 x 10" soft; which measure 20.2mm O.D. when fitted, but after truing this dropped back to about 20.0mm even. I need to knock this diameter back, as I want to retain as much gap as possible between the tyres and inside of the wheel arch. They are not edge-profiled on the outside edge. I will also do this while on the tyre lathe, to enable more body float.

I will probably need 8 or more grams of weight near the guide to counter "lift" and to adjust the front to rear balance closer to that magic 40:60 front/rear balance that is always a good start point when tuning a car for your track. That weight can be added during track testing.

Note that these tyres are very low shore - less than A-shore 20 according to ScaleAuto, and the compound is similar to Slot.it F15 or NSR "Extreme". That means if you overheat them by applying too much force resistance doing truing, they WILL ball up, and turn to a sticky mess, proceed carefully. The fronts themselves are reduced to about 19.4mm diameter after the glue and true process. The splitter has only 0.5mm clearance.

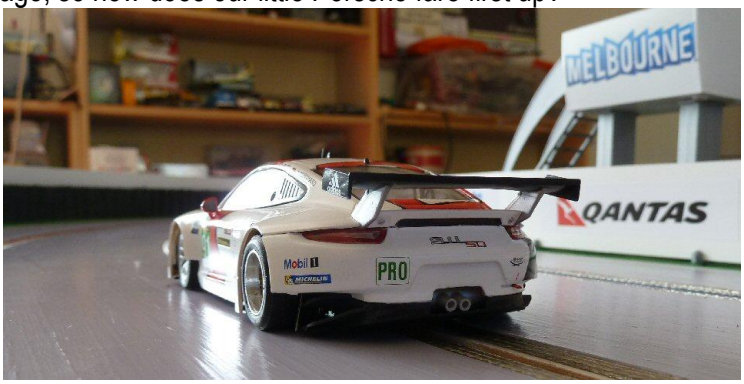


Setting up one of these podded cars to go well without magnets is initially less work than a Home Series car, but with the much higher powered motor, they need to be done well, as higher motor power exposes tuning faults very quickly. Below is *Circuito Bahia Vista*; the same technical 20 metre layout as used in last month's article for testing the ScaleAuto *Home Series* Porsche which achieved a respectable 6.8.

The all-comers lap record on this track is a 6.1, so keep that in mind as you read on.

I was keen to see how this "R" series car performed. But first I ran some Group 5 cars from my own racing stable, which I know to be well set up and fast on all tracks.

With the lower powered Group 5 (Slot.it orange bell), I eventually knocked over a high 6.5, and for the other two, which both have easy handling sidewinder setups with Slot.it "red-Bell" 29k motors, I managed 6.4s and 6.3s One of these cars placed 2nd overall in the New Zealand Group 5 proxy series two or three years back. It has since been further "improved" and was dominant in club racing just three weeks ago, so how does our little Porsche fare first up?



I came away from home without any lead for weight tuning, so I had to improvise with just 2 grams of blu-tak I found in my mobile "kit".

Well it was pretty quiet, and seemed stable, so I gave it some curry. Within five laps I laid down a low 6.3 WOW ! I didn't expect that.

In the end, despite my belief it had a 6.2 in it, I never went below this 6.32 time, but I managed quite a lot of 6.3s and 6.4s That is better than 3 metres per second average lap speed, for a very technical circuit; and surprised me; having done no live tuning. I could easily run this in our GT3 class at club without any further development. With that bit more weight in the nose, I think a 6.2 would have been easily achieved.

So my verdict is: These ScaleAuto "R" series cars can foot it against any of the other top makers with just the usual tuning. Most pleasing was that it showed no signs at all of shudder under heavy load coming out of all the tight turns with a torquey FK-180 boxer type motor in angle-winder setup. ScaleAuto have done a very good job developing their new chassis and pods. Thank you Ivan.
As one customer put it after tuning his first ScaleAuto GT, with the same pod and running gear as this Porsche 911

" Very pleased with Viper. Performance on par with NSR C6 Corvette."

In Closing

And just because I had nowhere else to put it.
Slot.it still have some stocks of their original 18mm 36 tooth Sidewinder spur gear. It is a solid gear, not flash and lightened, but they are on special from Slot.it – read "Cheap"

Code is GS06 under Slot.it Sidewinder gears

Some guys like these as an economical solution for upgrading older cars, so I bought a bucket load of them for anyone wanting to fatten up their war-chest.

There are lots of great cars coming through the pipeline at present, and a number of racing events planned for both islands this year by Tony Cook of NSR and myself. What a great year to do something new, travel and meet slot racers from other areas. I think this might just be the most exciting year we've had since I got back into slot racing 12 years ago.
