

TRI POD



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IGNORE THE STEERING WHEEL — THIS THING IS A THREE-WHEELED CORNER MONSTER.

Words & Photos: Mark Hinchliffe

There's a tingle going right through my spine while my backside skates inches off the tarmac and my eyes are as wide as saucer plates.

This, a visceral thrill as spine-tingling as anything I've ever felt on two wheels and all at legal speeds.

Welcome to the world of trike riding.

Only this one is a bit different with a steering wheel instead of handlebars and two wheels up front like the Can-Am Spyder.

The Tri Pod Car is legally a trike, so you have to wear a helmet like a bike or trike but you also need a seatbelt like a car.

It's the invention of self-confessed bike nut Andrew Hutchison, 42, of the Sunshine Coast.

This is no topsy-turvy Reliant Robin set to topple over in 10km/h corners.

With its ultra-low centre of gravity and torque-heavy Honda VTR1000 Firestorm engine and swingarm, it's a lean, mean thrill machine.

"I always wondered about three wheelers as it seemed simple if it was low enough and wide enough," he says.

"I'd never ridden a three-wheeler until I made one."

Hutchison was aptly born on Phillip Island and although he hasn't raced there, he's been to several MotoGPs.

He owns a Honda VFR800 road bike and a "crazy" 2004 Kawasaki ZX-10R that he uses as a track bike.

The hi-fi electrical technician by trade designed, engineered and mostly built his prototype three-wheeler with some help from friends. "I have a genetic disposition to being handy at most things as my

father and grandfather were tradesmen, but my welding is shit," he says.

"I do 99 per cent of the design, engineering and build but I have input from other people and get the welding and painting professionally done."

The project started in 2006 when Hutchison was having some time off work but the first road test wasn't until Christmas Eve 2007, when he did "a bit of hooning" around his industrial estate.

Hutchison studied the Australian Design Rules and worked with an engineer from the start so that the project would comply with Queensland Transport regulations.

Each vehicle is individually constructed and has to comply with ADRs for low-volume build.

Hutchison says the advantages of three wheelers over conventional four-wheel kits are that there are no emission restrictions as it is classed as a trike and the chassis design does not have to undergo any crash testing.

That makes it cheaper.

You can build a Tri Pod trike for \$15,000 to \$20,000 (depending on engine), which is

Notes – Helmet not required in Qld and Vic. I'm actually 48 (sigh...). Been to one GP (sigh...). My welding is at least one notch better than 'shit'. It actually has to comply with the NCOP on LEP2 category vehicles and is built as an ICV (individually constructed vehicle), not a low volume vehicle. Crash testing irrelevant in either low volume or ICV. Perhaps Mark means Torsion and Beaming chassis testing?



about half the price of a Clubman kit car. Registration costs will be about the same as a four-cylinder car.

A Tri Pod trike can be bolted together just like a Caterham kit with no drilling, cutting or bending required.

However, if you feel lazy and want Hutchison to do all the work, it will cost about \$45,000.

At the heart of the Tri Pod is the VTR engine for "many good reasons".

"It's available at sensible prices, has a strong swingarm, good mid-range performance, it looks cool and simple with carbys and it has a great sound," Hutchison says.

The Tri Pod also uses the Honda's transmission, chain drive and swingarm, so it's important that the donor vehicle doesn't have any damage in these areas.

He's built three chassis that can be

modified for a variety of engines and he has so far had inquiries about using a Harley donk, GSX-R, Bandit 1200, VL1500, VFR750 and, of course, a Hayabusa four-pot.

Much of the adjustable suspension comes from the donor bike, although he plans to replace the Showa shocks with Protech units made in the UK.

The bike brakes are also employed here with the twin fronts being split to service each wheel. Hutchison says that using a lot of bike parts makes the vehicle light, strong and cheap.

One of the big problems with using bike engines in kit cars or trikes is the oil surge in corners — bikes lean and the G forces push the engine oil straight down in the sump, not sideways as it does in a car.

However, Hutchison says the VTR's sump is deep enough to avoid any such issues.

The biggest departure from the bike or any trike is the steering wheel, which is a "mongrel" set-up.

It includes an Escort quick steering rack and HiLux steering column that he bought on eBay for \$25.

Notes – Some drilling and cutting involved, no welding though for sure. Factory built is actually around \$30,000 (plus rego, engineering and stamps) as I have pinned down the real cost more accurately since Mark interviewed me.



Tri Pod

He admits that although the steering is "quite crisp", there is a dull spot in the centre that should be remedied by moving steering back a bit and giving it a bit more caster.

"It just needs a bit of tweaking," he says.

Hutchison has sold three and says the only thing that has gone wrong is when the mudguards on his prototype fell off coming down Putty Road.

"I'm pleasantly surprised that nothing else has fallen off," he says.

We took the Tri Pod for a scintillating spin through the hinterland hills of the Sunshine Coast.

You sit low in the seat, which is made of steel and is part of the chassis. There's a thin piece of foam as upholstery so it's hard, yet once you start having fun you forget any discomfort.

There are two keys to fire it up and there is an instant assault of V-twin throb and growl from the Firestorm engine that is right behind you rather than between your legs.

The sequential shifter is to the right and the positive Honda gearbox feels as precise as on the bike, despite the longer linkages.

Neutral is easy to find and it snicks neatly through the cogs, although downshifting will easily lock the back and it's difficult to heel-toe the clutch, brake and accelerator.

The pedals are adjustable but there's



just no space down there for fancy footwork with my size 11s.

Acceleration is almost as quick as on the VTR, while cornering obviously feels more like a car than a bike.

But the big thrill that neither bike nor car can give is the sensation of skating so close to the road surface and when you're sitting this low, even a slight hump in the road becomes a blind crest, so there are plenty of butt-clenching moments to be had, even at legal speeds.

Having two wheels up front gives great grip going into corners but with one wheel at the back it has a propensity to fishtail coming out.

That's not a criticism; in fact, that is one of the delights of this trike. You can

powerslide all day without feeling like you will tip or high-side.

The lack of grip on the back also means that if you floor the throttle, the grunty twin unloads the back wheel, which will spin with great abandon in a straight line up to highway speeds. Huge fun.

Would I give up my bike for a Tri Pod? No. But would I love to have one in my garage for occasional track days and short jaunts through the hills just for a lark? You betcha! **C&T**



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Steering feel and turn in have indeed been much improved with alterations to the bottom wishbones giving more caster and better Ackerman. Mudguards are still failing every 10,000kms, working on a completely new bracket! The seat is much more comfy these days with it being made from a fibreglass panel in the production kits. The back doesn't squirm, lock, spin or move around at all anymore (well almost, it can still

be provoked) due to selection of a superior tyre. Mark was a bit tall for the car as it was set up and indeed heel and toeing would have been difficult. Production kits have a slightly better steering wheel/pedal relationship and if you are really tall we are working on a slightly bigger all round, chassis. Pedal area room wise there is substantially more space than an open wheeler or clubman style car. Mark has been invited to test drive the latest spec. I thank him for an excellent article, although he may have written it sometime after the interview...?

Further info on Tri Pod Cars can be found -

www.tripodcars.com

Facebook – <https://www.facebook.com/TriPodCars>

Youtube – <http://www.youtube.com/user/Audiofixqld>

Or by emailing myself, Andrew Hutchison at - tripodcars@gmail.com

Thanks for reading.