

## Slot.It and Truspeed adjustable controllers

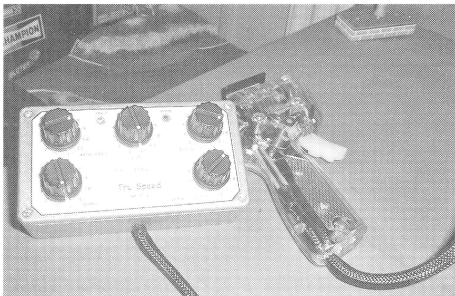
By Phil Insull

Many of us spend a fair bit of time tuning and sorting our slot cars in the search of a few extra fractions of a second and, as Dave Chang's recent articles show us, it is worth our while. However until recently I never gave much thought to how much difference a "tunable" controller makes to my on-track performance. I plodded along with a stock 35 ohm Parma throttle having tried out other peoples' with adjustable choke boxes on them and not found much difference. Then one of our members lent me his new Truspeed Pulse Width Modulation (PWM) controller to try and boy what a difference - even to an old duffer like me.

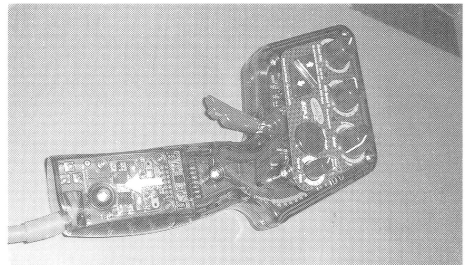
The Truspeed PWM has a standard looking Parma handle but it is completely reworked with an electronic sweep control replacing the old resistor and has a boost button for extra power on big circuits. The hand unit is connected via tough braided cable to an electronic box of trickery that gives adjustment for power, acceleration, braking, sensitivity and hold. All of these can be set into one of twelve different positions to fine tune the various functions. The sturdy metal box has a standard three pin arrangement as used by most clubs and has power and brake indicator lights to show when you are on throttle or brake and provide warning if the track has a dead short. Finally, as

the Truspeed is custom made to order, the box also has the owners name on it so you don't pick up the wrong one. Now all this cleverness doesn't come cheap and at £175 it is unlikely to interest many non-club racers but for club use it really does make a difference and many people at the Wolves club have now switched to Truspeed PWMs, me included. My reasoning was that the controller is something I use week in week out and should last me at least five years so on a weekly basis will cost me 67 pence per week over its expected life, not bad compared to what the cars cost me. For further details visit the Truspeed web site at [www.truspeed.co.uk/](http://www.truspeed.co.uk/)

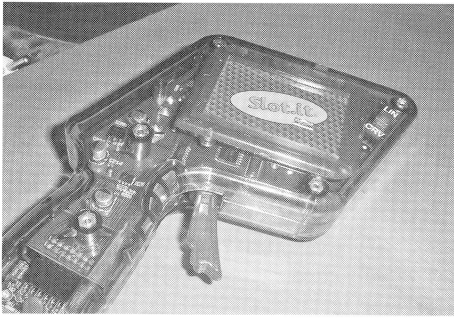
The problem with Slot Racing is that you wait for ages for something like the Truspeed PWM to come along and then someone else develops something along similar lines. You are probably familiar with Slot.It's excellent cars, well now they have also developed a brand new electronic controller. The Slot It SCP-1 has all its functions contained within the hand unit itself with four dials controlling power trim, minimum speed, brake and curve or maximum speed. There is also a button that acts as an overriding handbrake and two buttons that control single shot braking or, once it becomes available via an interchangeable module, lane changing for digital racers. While also using an electronic board rather than a resistor, the SCP-1 is



*Truspeed PWM Controller*



*Front view of Slot It SCP-1 Controller*



*Rear view of SCP-1 with linear or curve select switch*

contactless using a magnetic sweep arm to eliminate possible contact wear. The SCP-1 comes supplied with an analogue module but this can be interchanged for a digital one once it becomes available later in the year, allowing the controller to be used on both types of systems. The rubber flex comes with three removable jack plug pins as standard but these are simple to take off and wire up to a standard three pin socket for club use or can be wired for home pin tracks using the dip switch settings indicated in the instruction manual. The one function that intrigued me the most is a little switch on the reverse of the controller that offers either linear or curve power profiles. This is exactly what it says in that the one simply applies power in a straight linear fashion between the minimum and maximum points you have chosen, while the curve feature means you can set either a convex or concave power curve to either apply sharper power initially and then less sharply as you approach the maximum speed or vice-versa. Again this isn't the cheapest on the market, retailing at £72.50 from Pendle Slot Racing for the controller (the price of the additional digital module has not yet been announced) but it offers a lot of functionality for the money.

To see how these two performed I took them to Wolverhampton for testing on the Wolves wood track, using 13.8 volts fixed supply on the red middle lane. I ran a decent period with each controller in search of the best lap time using a Slot.It McLaren FIGTR. To begin I spent five

minutes with my old thirty five ohm resistive controller setting a base time and came up with 8.65 seconds. As I have been using the Truspeed for several months I switched to that next and after a quick tyre clean spent the next fifteen minutes making a few tweaks here and there and got down to 7.1 seconds, quite an improvement, although I know the quicker lads can get into the 6 second brackets with a similar car and controller combination. Finally I spent around half an hour playing with the SCP-1 and found that using the curve feature with gentler acceleration and more top end power was most suited to my driving style giving me a 7.5 second best lap time. With more practice and an increased knowledge of the SCP-1 it may well be possible for me to improve although I must say I prefer the feel of the Truspeed PWM. In keeping to a Parma casing the Truspeed feels like the controller I have been used to for so long and yet can be adjusted during racing by a quick flick of the five dials with the left hand without looking down.

I found with the SCP-1 I had to look at the dials while racing to make adjustments and that slows you down. I also found the SCP-1 a bit large and chunky and the trigger action while smooth doesn't seem to have much "feel" to it. Being a smallish club track I never use the "boost" button on the Truspeed and so can hold it in my right hand without needing to use the left on the controller. To utilise the hand brake or one shot braking buttons on the SCP-1, which do function very well, I was having to use two hands, which to me doesn't seem very natural. To sum up I can understand why many club racers are converting to the Truspeed PWM as it does improve performance and confidence in one's racing. The SCP-1 is also undoubtedly an excellent controller and considerably cheaper and will provide improved performance over standard resistive controllers but not as much as the Truspeed will. Where the Slot.It controller will come into its own is when the digital module is released as you won't need two controllers for each system, when it becomes available I'll be certain to test it out. ■