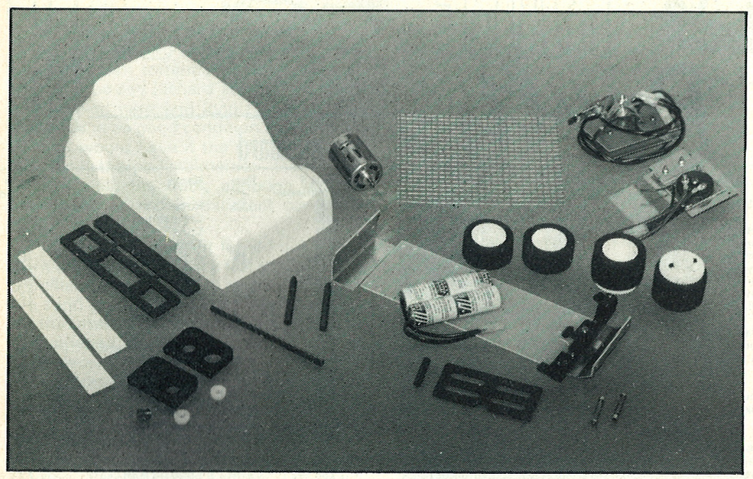
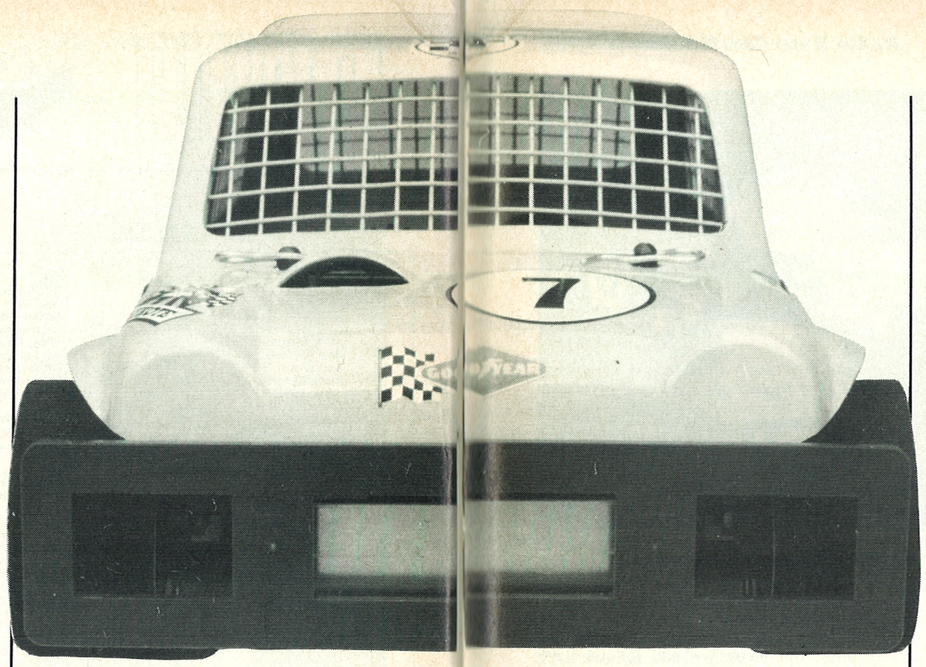




MARDAVE MINI STOCK CAR

The latest Mardave Mini Stock Car reviewed by GREG HALLIDAY.

Mardave have always been known for their rugged, no-nonsense designs and they probably produce the best value for money range of products available today. Whilst not bristling with the latest technology or constructed from 'hi-tech' space age materials, they are nevertheless tough, rugged, well thought out and simple to construct. They also perform very well. It's probably true to say more of the older 1/12 racers started their careers with Mardave products than any other make. In fact, the latest mini stock kit owes its very heritage to those original Mardave 1/12 designs.

The Kit

So what do you get for your money? The answer is, incredibly, absolutely everything except radio gear. Inside the brightly coloured box you get a complete rolling chassis kit, an A.B.S. bodyshell, a speed controller, Mabuchi RS540 motor, nicad pack and even a fast charge lead, and all for just £39.95 RRP. How do they do it?

Also included is a three page instruction leaflet and this advises that any modern two channel proportional radio control equipment will fit; there is ample room for all the sizes of radio gear I am aware of. A nice touch is the inclusion of comprehensive spare parts list with prices, and what prices! Would you believe you can buy a pair of front tyres for only 80p, and you can even purchase just one if you want to. A new front bumper costs 35p; the same price as for a front wheel. The cheapest component is a wheel nut at a mere 8p and a replacement RS540 motor costs only £3.95. Maintaining this car on the track isn't going to hurt your bank balance one little bit!

Down To Work

The chassis is a simple epoxy glass flat plate type and is accurately pre-drilled to accept the rear bearing blocks and other components. It comes already fitted with the front axle beam, steering arms, servo-saver, and front bumper support. Only a screwdriver and small spanner are required for assembly work and it is an easy matter to secure the right and left hand rear axle bearing blocks to the chassis with just four self tapping screws. The rear bearings supplied are of a plain white nylon type, but I would recommend the fitting of ball bearing races for improved performance and simpler maintenance. I had a little difficulty obtaining the correct size, but discovered Colchester Model Cars had them in stock at £4.95 a pair. At this point the motor is soldered to the two wires of the speed controller (even these are already pre-soldered) which is a simple job provided your soldering iron is hot enough. The motor is then fixed to one of the bearing blocks. An important point here is to ensure careful alignment of the blocks to prevent binding of the axle; a little extra time spent on this will pay dividends in speed and running time. The speed controller is then secured in position on top of the blocks with two self tap screws. You won't have any problems trying to decide which screws to use as only one size is used throughout the kit!

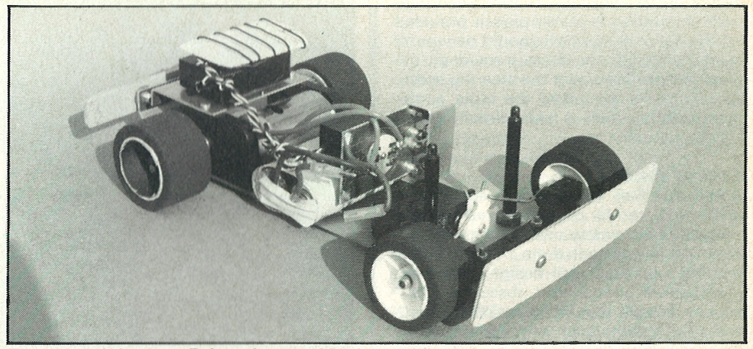
The speed controller deserves a special mention as this is the major difference between the old and new mini stock car. The original consisted of a P.C. board, with attached wire speed resistors, fitting directly on top of the servo. The wipers were fitted onto the servo output discs. To be honest, I have run one for a year without any problems, but they are difficult to set up and I have seen a number of drivers have difficulty with them. The new controller is much more sturdy and is a development of the Mardave Meteor version. Some drivers report the new type is giving a little more top speed due to the larger wiper contact areas, and it certainly appears to be more reliable. A supply wire for your radio gear is fitted, and as the nicad pack supplied with the car is 4.8 volt, dropping diodes or battery eliminators are not required. Don't worry if you already have a B.E.C. radio set though, it will still operate perfectly on 4.8 volts.

Now for the front. As alrady explained, most of the front end is already fitted to the chassis and it is a simple matter to push the stub axles into the steering arms and secure them with the nuts provided. (I always think it is a good idea to use thread locking compound such as Loctite on all metal to metal joints to stop them falling apart in the middle of a race). Next in line is the fitting of the wire track rod links which are held in place by neat model aircraft 'swing in keepers'. Finally screw the rear bumper onto its metal support, bolt that to the chassis and screw the front bumper to the pre-fitted support. To reach this point has probably taken less than an hour and the brain hasn't had to cope with anything mind bending whatsoever.

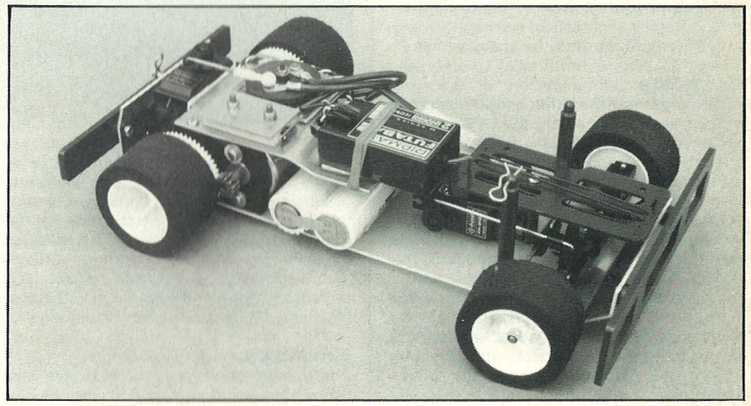
Let's Get Gluing

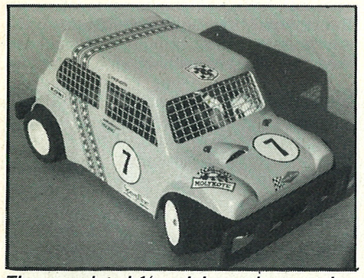
Unlike off-roaders, 1/12 car tyres have to be glued to the wheels to prevent them sliding off the hubs when cornering hard. This is quite a simple job when you've done it a few times, but is almost always a bit messy.

My technique is to apply a reasonably generous coating of impact adhesive to the hub, which I lay flat on the bench, and then working quickly I slide the tyre down onto it. As this tends to push the glue down the hub, I then apply a further smear of glue between the hub and tyre at the top. Again working quickly, I then roll the tyre/hub combination back and forth on the bench to even the tyre onto the hub. Finally when the glue is set, I use a solvent cleaner to remove the excess. I have tried both Evo-stik and Thixofix and find that the former appears to bond the tyre a little more firmly, and the latter enables better positioning on the hub. "You takes your pick"!



The old and the new. Below the new Mardave mini stock, the changes in design are quite noticable.





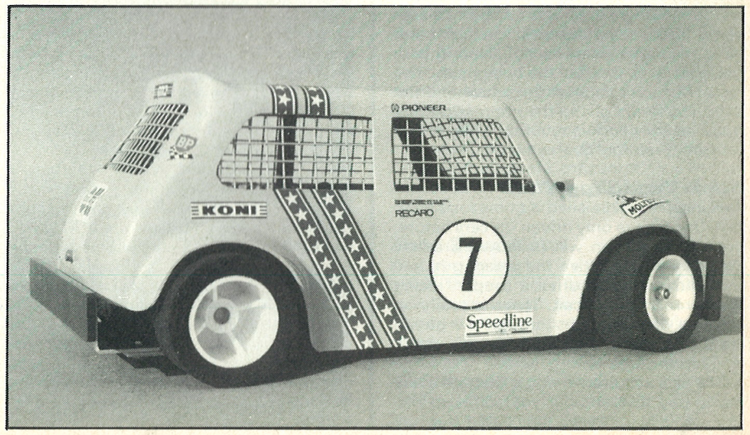
The completed 1/12 mini a real eyecatcher and what a great way to improve your driving during the closed season.

Before fitting the wheels to the car they should be 'trued up'. This will give you the maximum track to tyre contact area and obviously the best grip. For more information on the subject refer to Mike Smith's article in Stock and Oval, RRC November 1987.

Now you can fit the wheels and you will then have a completed mini rolling chassis. Both rear hubs have an attached 50T gear wheel moulded on them which enables a quick swop round if you are unfortunate enough to damage one — a bit like having a spare wheel! Watch that you have some sideways 'float' on the axle before locking up the rear wheels to ensure free running. A nice touch is the supply of the correct size Allen keys for both these and the motor pinion.

Radio Installation

The two servos required to operate the speed control and steering are secured in position with double sided adhesive tape, and the reeceiver is neatly fitted over the



nicads on an extension of the speed controller mounting. A plastic plate is provided for the aerial wire which should be wound neatly through the holes provided; the plate is then fitted over the steering servo. As previously explained the radio equipment battery supply is taken directly off the speed controller.

Power Pack

A four cell 'Saft' nicad pack is supplied — during the premier days of 1/12 racing these were the batteries to use but with the advent of high current drain motors, which require a different cell design, they have disappeared almost into obscurity. I personally believe that with low current consumption motors such as the Mabuchi the type of cell makes little or no difference. Double sided tape is utilised for fixing and the recommended method is to cut two thin strips for each pair of cells and simply press them down onto the chassis plate

Body Bits

Time to get out the other tools needed to make your mini, namely the scissors and knife. The new design body shell is moulded in white ABS plastic and this has a finish that needn't even be painted if you don't want to — just stick on a few decals. A certain amount of trimming and cutting is required and perhaps the most tedious part of the whole project is cutting out the window openings together with the cutting and sticking in the wire mesh. If you don't fancy doing this you can simply paint in the windows where marked, but there is little doubt that the mesh infilled windows look "the goods and their appearance repays the effort.

Any cellulose paint can be used for finishing, so look through your garage and see what's around or alternatively slip down to your local car D.I.Y. shop and choose from any of the hundreds of colours available. Just wipe over the shell with methylated spirits before painting and spray away! The ABS is surprisingly easy to spray on and allows a very good finish to be obtained; just remember to spray several light thin coats. Some coloured decals finish off the job and our car was finished with some of the excellent new range produced by 'Peelers' plus some old 1/12 transfers I had lying around.

Race Tuning

As supplied my mini had too much toe-in, but this was easily reduced by slightly bending each of the track rods in their centre. Another very important point discovered from racing these cars is that if you have an excessive amount of steering lock, the front tyres can foul the body posts. The result of this is to slow the wheel and the car understeers giving the impression that more steering lock is required when in fact less will probably overcome the problem.

Stick Twiddling Time

Well, now it's all finished it's time for a track test. If you have only driven 1/10 cars before, your first reaction will be how incredibly sensitive and positive the steering is and this allows you to drive a proper 'racing line' around the circuit. There is really no need to drive straight through the guy in front, just wait 'til he goes wide on a corner and nip through on the inside!

The skill acquired in doing this will eventually pay dividends in your off-road racing, as it is certainly noticeable that the best drivers in my area all practice "on the carpet".

But back to the track test — the new speed controller works well and it even has freewheel and deadstick braking areas on it. The car handles nicely and is real fun to drive. Surprisingly, the performance with the four cell nicads does not seem that different to its six cell cousins. The mini can be driven on most fairly smooth surfaces including tarmac, paving and concrete. It is incredibly tough and capable of withstanding really bad crashes without damage.

Conclusion

There is no doubt that the Mardave Mini Stock is tremendous value for money — it is possible to purchase a package deal complete of car and radio equipment for under £85! Spare parts are incredibly cheap (a new body shell costs a mere £2.25) and because the whole thing is so tough you will hardly ever need buy any. With the cost of all forms of competitive radio controlled model racing becoming more and more expensive, anything to keep costs down must be considered good news — here the mini has no equal.

Where Do We Go From Here?

The Mardave Mini Stock car was designed for nudging and nerfing in oval racing, but now there is an alternative use; try 1/12 mini circuit racing. (The Mardave Mini Stock Car is available from your nearest stockist price £39.95).

A look through the November issue of Radio Race Car proved to me that competitive radio control model car racing can be very expensive. For example, you can now spend £120 on an electronic speed controller, £130 on the 'ultimate' charger, and £39 on a set of nicads (remember, the top racers are using a set for each heat). I am sure these products are quite superb and wouldn't we all just love to have them! There is no doubt that if you want to compete at top national or international level it will certainly help to use the best available equipment, but to win, driving skill is what is required. How can this skill be acquired? By practicing in actual racing.

So what about the guy, be he young or old, who has limited funds and is just itching to get into competitive racing? Is there any alternative other than to spend a lot of money? Yes, there now is — take up 1/12 mini circuit racing.

Why A New Formula?

Cardiff Red Dragons Radio Car Club had been around since 1/12 racing started on polished floors when all the cars used tyres coated with stippled finish silicone sealant. Through the years we had followed the latest trends in car design and ended up with a carpeted circuit. Unfortunately, as the cars developed and their design became more innovative, so the cost went up. And as the cost rose, we lost more and more members, finally ending up with half a dozen die hard 'win at all cost' racers.

In an attempte to revitalise the club and with the second and third generations of off-road cars appearing on the market, we decided to change to 1/10 indoor racing. For a short period the membership increased, but within a year we ended up with the same half dozen racers, only now they had R.C. 10's with lowering kits, graphite chassis and all the 'right' goodies!

Well you can't run a club if you're unable to pay the hall hire charge, therefore we decided we had two alternatives, either (a) close the club down or (b) change the racing format yet again. None of us wanted to see the club fold (where would we go on those bleak winter nights) so we chose to consider changing the format yet again. But to what? How could we bring those elusive members back, bring in new faces and keep the die hard six happy?

Searching the pages of my favourite mag., (Radio Race Car naturally), for ideas, I came across a Mardave advert for their 1/12 mini stock car. I had never owned a Mardave product before, but had always admired their rugged simplicity. Their prices were quite amazing too!

For those of you who don't already know the mini-stock is designed for oval racing, which is a 'contact' sport. To overcome damage they are fitted with large bumpers front and rear and are extremely tough so that repair costs are minimal. Certainly the car seemed to fit the bill, but would it handle on a circuit with sweeping fast corners, tight hairpin bends and chicanes? Would it be slow and boring with its four cell 4.8 nicad pack?

The Great Debate

We managed to get a few of the long standing members to a special meeting where I put forward the proposal to change to mini racing and read out a set of draft rules which had been prepared with Steve Jones (better known by his nickname as 'Jones the