

RRCi RTR REVIEW AXIAL 'HONCHO' TRAIL READY 4X4 SCALE RIG

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QUICK SPEC

Manufacturer Axial Racing
Type Trail Ready 4x4 Scale Rig
Price £299.99 RRP
www.cmldistribution.co.uk

Scale 1/10th
Power Electric
Width 227 mm
Weight 2.8 kg (inc pack and weighted wheels)
Wheelbase 313 mm
Internal Gear Ratio 2.6:1
Shaft Driven 4WD
Top Speed Stock Jogging Pace

**"The following scale has here in the UK,
and in fact worldwide is far bigger than
you would think"**

TAKE ME TO YOUR HEADQUARTERS



Above: All the looks, features and performance of a scale project, but without the hours of build time

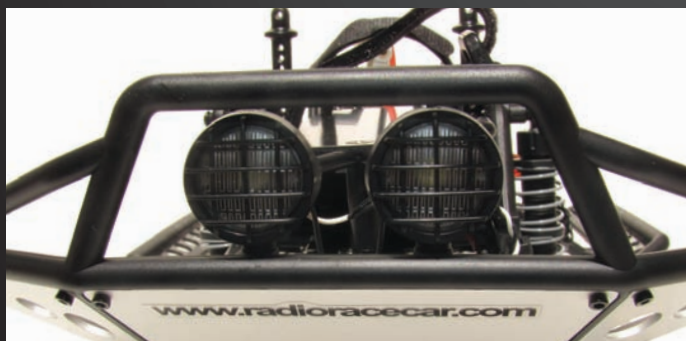
Over the last two years, I've spent many pleasant hours planning, then scratch building trail rigs as an alternative to running a race orientated car or true 2.2 crawler. If you've never seen or had a go with one, it can be hard to really appreciate the pleasure to be had just running on paths and trails, through woods and streams, it's R/C at a very different pace, but just as rewarding to drive. The art of the scale builder is also to create as photo-realistic a rig as possible, but still retain all the abilities of a purpose-built crawler/scale hybrid.

The following scale has here in the UK, and in fact worldwide is far bigger than you would think, with regular informal scale meets

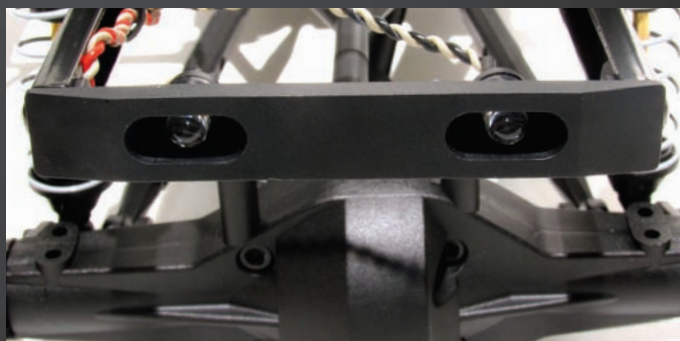
"The rig comes as standard with a pair of working front LED fog lights and red LED rear taillights"

and even competitions held on a regular basis. It's weird, because as I'm writing this Brad Dumont and other members of the Axial crew are competing with like-minded enthusiasts at the US Scale Nationals being held in Montana (and heading for a top 10 place judging by the Facebook posts!). I've been communicating with him loads lately about the release of their much-anticipated new XR-10 M.O.A (Motor On Axle) Crawler, and the subject of this review the SCX-10 'Honcho'.

The M.O.A will be the subject of a future and much anticipated review, but until that, I'm heading firmly into scale territory with what I consider to be the only true RTR scale rig out there at the moment.



Above: Front LED fog lamps come with a choice of protective grilles adding to the realism a scale appearance



Above: Rear tail lights are recessed to keep them from harm's way while out in the wilderness

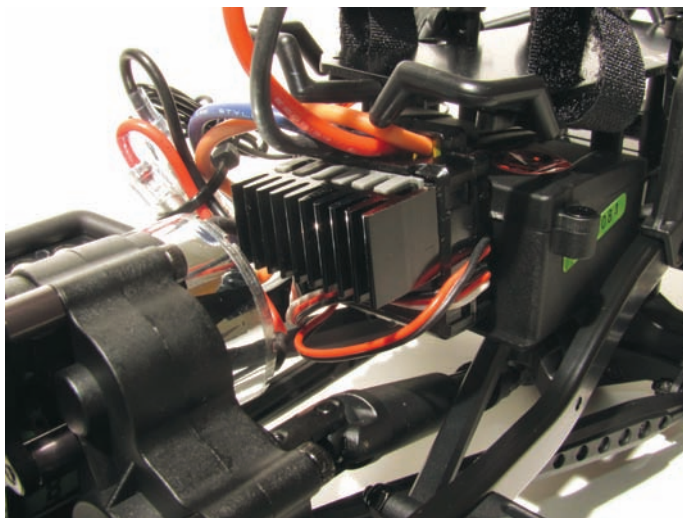
ALL THE PERFORMANCE, WITH NONE OF THE BUILD

The time invested by some into the actual build can be mind-boggling. Hand fabricating chassis and roll cages, modifying existing injection-moulded shells to create cabs and pickup beds from styrene sheet are all part of the process. When you combine this with the fact that they take a few knocks and get damaged while out on the trail, you can see why a good percentage end up firmly on shelves, the builders scared to even run them or let them see even a particle of dirt!

Well throw all that out of the window for starters! As the Honcho is a RTR or as Axial themselves call it: 'Trail-Ready' rig. It's designed to allow the owner to get up and running in literally minutes by adding 8 AA cells to the transmitter and a suitable charged stick pack with Tamiya style connector for the electrics. But don't worry scale fans, as Axial have also ensured that the rig can be personalised. By adding extra LED's to the optional light buckets (supplied as standard), any of the huge range of performance hop-ups that are AX10 compatible and with the addition of further scale accessories, you can still make the Honcho a very detailed and individual looking project if you wish!

The rig comes as standard with a pair of working front LED fog lights and red LED rear tail lights. This can be expanded to add further spots to the cage, flatbed and bumpers if that's in your master plan. The LED control board sits neatly inside a splash-proof box with the receiver, and Axial sell an optional LED expansion pack allowing you to go as far as you wish and have the ability to run your rig even when the sun goes down.

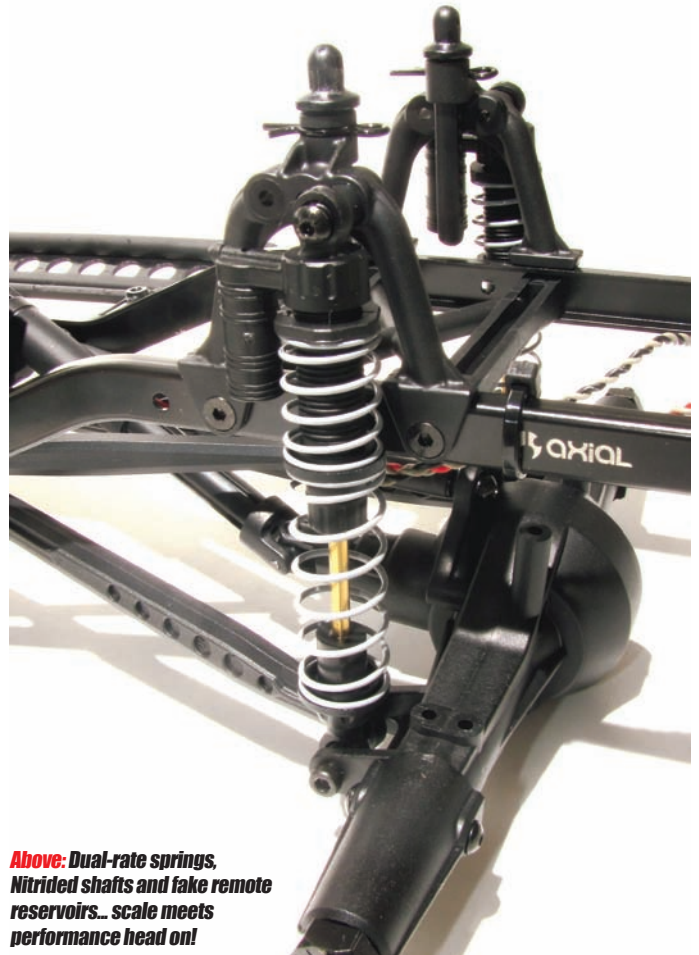
With the Honcho you can drive to places that most 4WD off road R/C cars can't even negotiate, and also crawl up and over the many obstacles the great outdoors can throw your way while out in the wilderness (or garden!). It's fully equipped with an extended 12.3" wheelbase, a steel 'C' section chassis, true bead-lock wheels, Pro-Line Flat Iron M3 compound tyres, solid axles (locked with alloy spools), and a competition proven transmission and driveline taken straight from the most successful shaft driven crawler ever, the AX10.



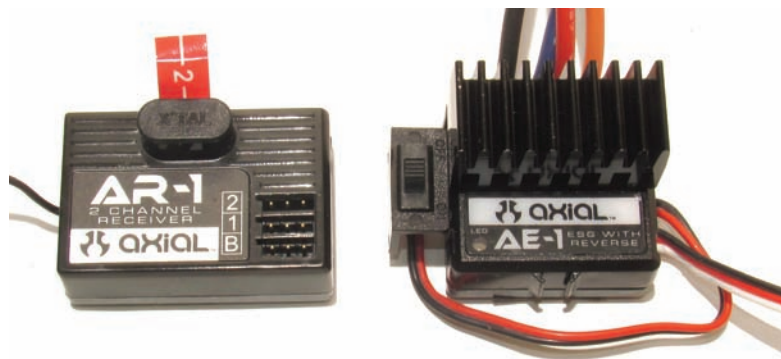
Above: The ESC sits as low on the chassis as possible, attached to the side of the splash-proof electrics box

STOCK DOESN'T SUCK

One thing that Brad Dumont made sure of is that his comp trail rig is as close to the 'Stock' rig as possible. This proves that performance isn't just about throwing money at your ride. Learning to drive it, seeing what it's capable of, and knowing its limits, are far more important factors. The Honcho comes as standard with a brushed 27T 540 motor and the driveline is protected with a twin plate slipper clutch. The slipper will ensure that, if set correctly it will slip first in the event of a bind in the driveline, and stop propshaft knuckles failing and 'popping off'. It may seem an odd choice at first for a rig designed to also crawl, but in testing the 27T had a good balance between trail ripping wheel-speed and when required, low speed torque. This was aided by the Honcho's 33.46 final gear ratio created by the 87t spur and 20t pinion. You can adjust the final ratio to control the balance between speed and torque. If you feel you need a higher top speed, use a small final ratio. If you need more torque go for a bigger final ratio, again versatility is the keyword here!



Above: Dual-rate springs, Nitrided shafts and fake remote reservoirs... scale meets performance head on!



Above: 27MHz radio gear and stock ESC are perfect for trail running, but possibly swap them out for more serious Rock Crawling

TRICK TIPS HONCHO'S FINAL RATIO EXPLAINED

$$\text{Final Ratio} = (\text{Spur Gear} \div \text{Motor Gear}) \times 7.692 \text{ (for Axial's AX10 transmission)}$$

The only criticism I have with the stock gearing is that it can feel 'jumpy' sometimes at low speeds when precision driving or crawling is required. My quick fix for this is to reduce the pinion to say a 17T, it will affect the top end speed, but control using the stock ESC is greatly improved. The supplied ESC is not a crawler specific item, and doesn't have drag/hill/decent brakes or instant reverse, but does offer a responsive throttle, something that's essential if you intend to run the trail and attempt 'milder crawling' with the rig.

To be honest the ESC is the only real issue I have with the whole rig. I would say that for just hitting the trails it would be fine, but if you want to go 'up and over' and test the ability of the Pro-Line Flat Irons to generate grip crawling, then swap out the stock ESC. Something like the Novak Rooster Crawler Spec would be perfect, as this offers programmable drag brakes and various parameters for throttle response.

The wheels and tyres supplied are the same combination seen on the previous two SCX-10 reviews RRCi has already undertaken. The 1.9 Axial wheels with their scale looking hub trims perfectly compliment the Honcho, and the fitted Pro-Line Flat Iron M3 compound tyres give a scale look, but have performance firmly in mind. I did the same mod as previous reviews by adding 5 oz of stick-on lead weight onto just the rims of the front wheels (making each weigh just over 9 oz). I then vented each rim with a 1.5 mm drill to allow the tyre carcass to deform and in turn, generate more grip when running over uneven surfaces. The reason the rears are left empty is that when climbing inclines weight transfer naturally weights the rears, but the heavier fronts still grip and pull the rig up. Descents can be a bit 'twitchy' though with a front biased rig, but always the best set-up for all-terrain and trail use. If you combine this with the front mounted stick pack configuration (as the Honcho is supplied) then you have a rig ready to take on most obstacles that stand in its way.

Another recommended hop-up (if you do intend to crawl) would be to go for a higher wind motor, say a 55t. This will give you far better low-end torque, and when teamed with a crawler specific ESC, offer you the best combination of control and climbing ability. As I've said before, this recommendation is only required if you intend to go off the beaten track, hit some serious inclines and crawl.

"Axial has also included in the spare parts tree the previously optional 4-link Truss"

CHASSIS RAILS AND RESERVOIRS

The backbone as ever of the SCX-10 Honcho is its pressed 'C' section ladder chassis. This not only gives a realistic look to the rig from various angles, but also offers the bumper assembly, rock sliders and skid plate a rigid structure to bolt onto. The skid itself triangulates the lower links allowing for a stable geometry with minimal axle steer (or the skateboarding effect that can affect crawlers). The top links are also triangulated, but are connected together at a single pivot point so in effect a 3-link set-up.

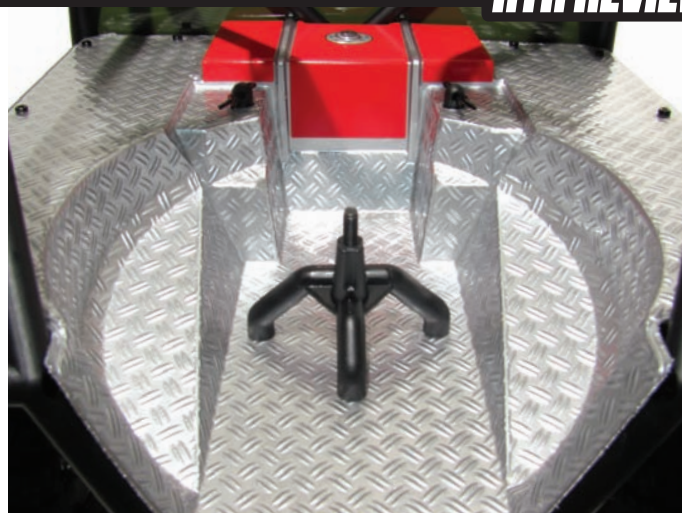
Axial has also included in the spare parts tree the previously optional 4-link Truss. This allows the owner to add this item at a later date to give the rig an even better scale look and offer the extra stability to the rear end that a true 4-link set-up brings. If you are planning this yourself, please note that if using the stock upper links then you will need to add spacers or better still, do as I'm planning and swap all the plastic links out for aluminium with the AX30550 aluminium link pack designed for the 12.3" wheelbase. It includes all the required hardware to convert to all metal links and allows you to fit the 4-link too!

The threaded plastic bodied shocks are fitted with dual rate springs, and offer a smooth action courtesy of Nitrided shock shafts. The 8 mm bore is quite minimal and the volume of oil used around half that in comparison to the shocks used on the AX10. Fake plastic remote reservoirs adorn the shocks and offer that extra scale touch. Rubber bump stops are fitted that restrict the maximum amount of the shock travel and in turn articulation. These also help stop the tyres hitting the arches and rear cage at full articulation, and will stop the possibility of the shocks bottoming out and leaking. On my past SCX builds I've omitted them to aid articulation and paid the price, so unless you are seriously hitting the rocks and don't mind scuffed arches and to have to regularly re-build the shocks, leave them right where they are!

"The Honcho shell sets a new benchmark in RTR scale realism"

THE TOP DOG

The Honcho shell sets a new benchmark in RTR scale realism, and the combination of the Lexan cab section, injection-moulded and perfectly painted rear flatbed and plastic moulded rear cage, just works perfectly together. It actually reminds me of a project Speedy Steve completed in 2009. He actually brazed together a rear metal



Above: Even the checkerplate rear bed and fuel cell look real, the spare tyre sitting perfectly protected

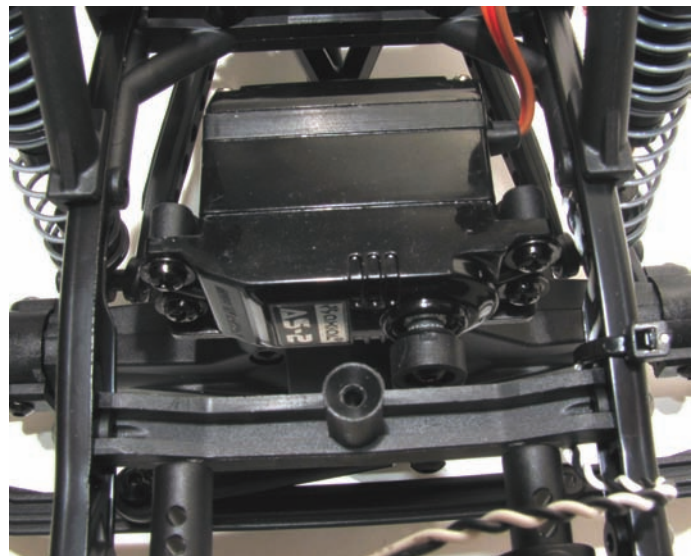


Above: The composite rear cage allows for extra lights to be fitted and adds to the rugged scale look
Below: 5 oz of stick-on weight and venting the rims to allow the tyre carcass to deform makes a real difference on inclines and rocks



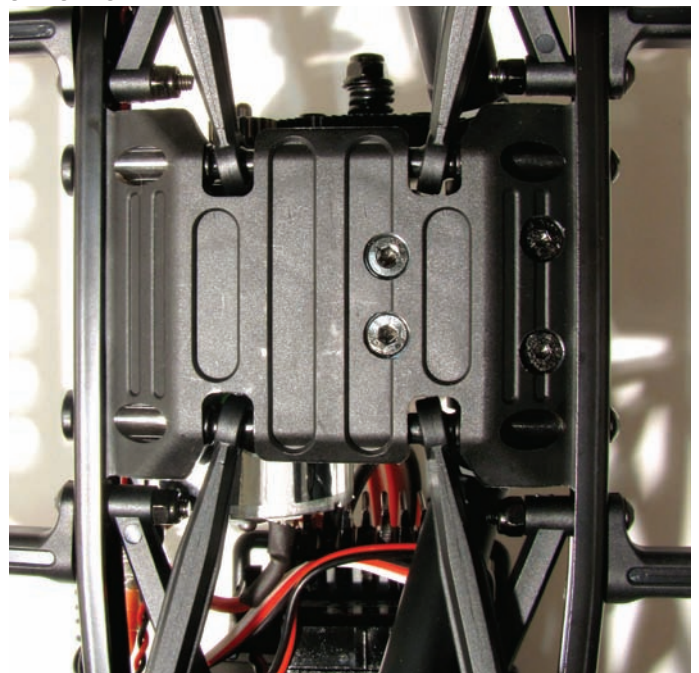


Above: Swapping out the plastic steering and drag links for alloy sharpened up the feel of the steering no end



Above: The AS-2 steering servo is a high torque metal geared item and perfectly suited to a trail rig

Below: The skid offers inboard lower links to aid triangulation and avoid them getting hung up in use



pointing in the right direction. There are rumours that it's an OEM Futaba unit equivalent to the 3010, but I can't confirm this without taking both servos to bits and comparing them!

One minor mod I did perform on the steering was to replace the front steering and drag links with the Axial metal equivalents. The items fitted to the stock rig are fine when you first venture out, but tend to flex a little too much for my liking. Metal links really sharpened up the steering response and when combined with the direct feel of a servo horn instead of a servo saver (as seen on previous RTR offerings) gave me the overall feel I was after.

Words of warning though, in testing the servo performed really well and took all the abuse I threw at it. I didn't go too extreme with the crawling aspect of the test and chose my lines so not to put too much strain on the gears. If you are intending on using the rig for more 'serious' climbs and crawls, then think about upgrading the servo to say a Savox 1256 or similar. This will ensure that whatever you attempt, there's 20 kg+ of power aiding your journey and keeping you travelling firmly in the direction you want to go! Better to over spec than eventually have a servo fail while 'out on the trail' (that rhymes!).

RANGE ISN'T AN ISSUE

The supplied 27 MHz radio is fine for the job in hand (excuse the pun!), range will never be a big problem with a trail rig as you tend to be right behind or near it at all times when running. That said the radio



Above: No wheel nuts in sight! The attention to detail is perfect, with chrome covers used to create a realistic looking hub on the wheels

cage, cut the cab section from a Toyota Hilux and spent many hours painting and detailing the results. It looked great, and even with severe 'rock rash' after its first few runs, it was a cool looking project. With the Honcho everything's done for you, perfectly painted and detailed. Even the fake aluminium checker-plate looks real on the flatbed, the red fuel tank is a good contrast, and the pièce de résistance has to be the functional spare wheel and tyre adorning the rear.

Axial has these elements spot on, and they add the theatre and realism that makes scale rigs such a joy to look at. My only minor criticisms are that you need to remove the spare wheel to take off the rear body clips to remove the shell. Not a major inconvenience, but a pain in the butt on a cold day when changing packs. Also that the body only comes in a military looking green. I guess it appeals to the 'off road' fans out there, but black or other colour options would have been nice, and offer the chance for prospective owners to look a little different if they want to run with friends with more than one rig at the same time.

ALL FRONT AND THEN SOME!

Where things get a little different from previous SCX-10 releases is the front end. The new bumper system with built-in angled metal skid plate really adds to the aggressive look of the Honcho and complements the shell and cage. The two LED front fog lamps sit protected behind an upper bumper section and wiring is neatly routed under the bonnet of the shell. The front skid assembly is constructed from three sections and does a great job hiding the metal-geared high torque steering servo.

On my last SCX-10 build I fitted a working 3-Racing winch controlled off a separate channel on my Tx. The Honcho's front bumper doesn't really have anywhere to do this and would require extra bracing to allow the weight of the rig to be lifted. My solution will be to fit a winch to the rear of the rig when time allows and I can pull myself up and over steep inclines and obstacles, and offer a helping hand (or winch) to other rigs that also may get stuck. This will be just one of the many modifications I will be doing to the Honcho in a future article, as well as announcing something rather special we have planned to attempt with the finished project.

At the time of going to press I couldn't get exact specs on the AS-2 servo, but for a RTR rig it does a good job of keeping the steering

did offer a fair amount of range before losing the signal. The downside is that a maximum of six Honcho's could only be run together, before interference becomes an issue. For 90% of the time this will be fine, but if you run somewhere busy with scale and crawling fans, you could have issues, so a move to 2.4 GHz in the future may be a wise one...

TRICK TIPS CLEAR SIGNALS

My advice is to always ask the frequencies of anyone you see running any R/C model nearby. If there's a conflict don't risk running your rig even if you think you are far enough away, as signals can travel further than you would expect at times and are affected by many factors, such as elevation and atmospheric. The sight of your Honcho falling off a ledge or worst case driving itself over the edge of a big drop isn't one I would wish on anyone! So... if in doubt, wait it out!

HOME, HOME ON THE TRAIL...

With the rig prepped and a supply of charged packs in my rucksack, I took the Honcho to a variety of different venues to test its abilities. At Burton Dassett the mixture of steep inclines, rocky sections and side-hilling really put the rig through its paces. I measured a grass and mud incline on my i-touch with sections of over 55 degrees angle, and the rig made steady progress and climbed it with ease. Anything over this and the relatively high C of G can cause the Honcho to tip backwards as it pivots around its rear wheels. Side-hilling capabilities in this stock form are quite limited, only managing around 36 degrees before falling over. Again this is due to the stick pack placed quite high up on the chassis (above the top line of the wheels and tyres) lifting the C of G.

You can run a smaller LiPo pack fitted on or near the axle itself, or as some owners have done add more weight to the wheels. I would rather have 40 minutes of run time, or more with a higher wind motor than have to change packs every 10 minutes.

The pack placement and C of G is perfectly fine for trail use and combined with the top speed, about the same as brisk jogging, makes for a fun and far more sedate pace when running the rig. I next went to the Malvern Hills, overlooked by the RRCi office and took the rig on a series of challenging trail runs, through a woodland area, and up and over moss covered rocks and tree stumps. The mixture of grip levels really added to the fun, and made throttle control the key factor to keeping the rig moving in the right direction.

The Honcho is totally at home in this type of environment (it actually blends in too well at times!) It is the perfect rig for anyone wanting to just relax and unwind and just enjoy being at one with the great outdoors. There's no rush or competitive angst, just sedate R/C fun. Keep it in the boot of your car, and when the mood takes you go and challenge yourself and explore the natural obstacles to be found strewn everywhere in the countryside. I can't wait to take it to the UK Crawler Nationals (a full report of which is featured in this month's magazine!) as they always have a trail run of some sort during the two days, normally at night (and occasionally after a beer or three!). There's nothing better than a session of 'follow the leader' as multiple rigs try and out drive each other over a series of increasingly more difficult challenges.

THE HONCHO WILL FACE A NEW CHALLENGE, FOR CHARITY

The Honcho is now my regular trail rig, and for the £299 price point in the UK offers exceptional value for money considering how little work is required to get up and running. It combines the look and performance of a scratch-built scaler with the convenience of a RTR so you can't go far wrong. The stock electrics are fine for dry running (and even shallow mud), but the next stage in the evolution of this SCX, will be to talk you through waterproofing it completely. You know reviews and me, I just can't help modding things, and the Honcho is no exception. After a few more hours work, I will be able to drive through streams, into shallow pools and if I so desire go mud plugging! But as they say, that's another story. For now I will leave you with this...

RRCi, with the help of some of our fellow scale enthusiast friends, aim to use the Honcho and a few other rigs to raise money for a national Downs Syndrome Charity. Our aim is to drive a small group of rigs up from the base car park right to the top of Mount Snowdon. We are still planning the exact date of this event, but once it's established and announced I hope that all the readers of RRCi can support us in some way by pledging sponsorship. Keep an eye on the RRCi website for more on this challenge and how you can help. **RRCi**



READ RRCI'S SPECIAL REPORT OF THE UK CRAWLER NATIONALS LIVE AND DIRECT OVER THE PAGE!



Above: The leader of the pack and sporting Axials tribal logo on the bonnet taken straight from their clothing range

TECHNICAL SPEC

REQUIRED TO COMPLETE
8 AA cells for transmitter
Standard sized stick pack with Tamiya plug

LIKES
Truly 'trail ready'
New bumper design
4 LED's included as standard and expandable
Fully detailed and painted body
M3 Pro-Line tyres and real beadlock wheels
AX10 driveline and transmission

DISLIKES
Steering linkages flex too much
ESC has no 'drag brakes' as standard
Servo is fine for trail use, but may need upgrading for serious crawling

CONTACT
For more info contact
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