

# 1/10TH 2WD RTR MONSTER TRUCK

BY DEZ CHAND

## STEP UP, STRIKE BACK!

### 1/10TH 2WD RTR MONSTER TRUCK

#### SPEC CHECK

SCALE: 1/10TH

DRIVE: 2WD

POWER: ELECTRIC

WHEELBASE: 295 MM

TRACK WIDTH: 325 MM

WEIGHT (INCL 2S LIPO): 2.2 KG



The clown of the family, the Striker was jumping for joy

If you are looking for a fun, easy to drive vehicle with a go anywhere attitude that can deliver fun by the bucket load yet requires minimum maintenance and set-up, the Step Up 'Striker' Monster Truck is for you. The huge multi-purpose tyres can handle anything, with a wide footprint and soft compound. They dig into grass, mud, AstroTurf and recently even entertained us for many happy hours on sheet ice over the school holidays and yet the tread pattern still look as good as new! A chassis with such high ground clearance means that even though it's 2WD you rarely get hung up, and the rear weight bias means it's frequently seen pawing the air in a power wheelie, which is always a

Simple robust construction, with non-handed components to keep the spares list simple



crowd pleaser and can often help get you over a seemingly impossible obstacle.

Supplied ready painted, factory assembled, fully wired and set-up, you have little more to do than charge up the supplied NiMH battery pack using the kit slow charger before you can set off for thrills and spills galore. The speed controller has an automatic set-up, so it's literally plug and play, while the 27 MHz steer wheel radio falls easily to hand and the adjustments on offer include dual steering rate, so you can get it dialled in perfectly.

The Step Up Striker might be a budget RTR for beginners but they certainly haven't skimped on the spec, as the whole rear driveline from the slipper clutch layshaft out to the rear wheels are all fully ball raced, as are the live front axles for an easy rolling action and a longer working life.

The huge set of Monster Truck wheels and tyres weigh in at just 600 g the lot, and such a low rotating mass is great for better acceleration and braking. While the Striker borrows its telescopic driveshafts and suspension parts from the buggy and truggy in the range, the Monster Truck has a tub chassis that is unique and stands well clear of the floor. With 72 mm of fresh air below the centre of the chassis, the coil over oil shocks offer 40 mm of suspension travel before the front and rear assemblies touch the floor, and 20 mm of droop is always in reserve to help soak up the rough stuff. The shocks have three upper and two lower alternative mounting locations for a total of six combinations of shock angle and leverage each, so you can alter the balance of grip front to rear until you are happy with it, though I have to say that straight out of the box it was just great, no matter what I threw it at.

The front bumper pivots on a hinge and uses a spring plate to absorb the punishment if you decide to tackle an immovable object, and it works well, simple and effective. The wrap-around rear bumper makes maintenance a little trickier than its stablemates, but the extra protection it affords is certainly worth the extra effort. Inside the gearbox we found a completely ball raced driveline, and all metal gears that make up a bullet



**A ball raced live front axle means you can swap wheels front to rear and share the wear**

proof driveline. The diff contains twin planetary gears that are almost the same size as the two bevel gears that take power out to the driveshafts, so the power is spread evenly across more teeth and hence the total strength of the assembly is improved tenfold. The diff is greased with a heavy lubrication to give better drive on loose surfaces but that soon spins away to leave a free rolling diff with an easy action so it will be well worth stripping the diff out occasionally to keep it greased up for a long working life.

The huge tyres are pre-mounted with foam inserts, and glued to quad spoke chrome plated wheels, which are interchanged side to side and front to back to share the wear and extend their useful life. The tread pattern is directional, but such a simple pattern that I could not tell any difference when they were fitted backwards, so don't worry about that. The rims are vented so the tyres can breath and maintain maximum footprint for excellent grip, but water will spin into the tyre insert so if you are running in the damp be sure to nick the tyre and let the water spin out again rather than gather and weigh the wheels down. The radio gear and speed controller are not waterproof by any means and the bodyshell is a very loose fit to the chassis so it's not advised to go puddle jumping, but to run in the ice and snow we simply wrapped cling film around the whole chassis and then fitted the bodyshell, which worked a treat!

**The rear bumper extends beyond the bodyshell and doubles as a wheelie bar**



**The steering servo hangs down, while the receiver lives right up front**

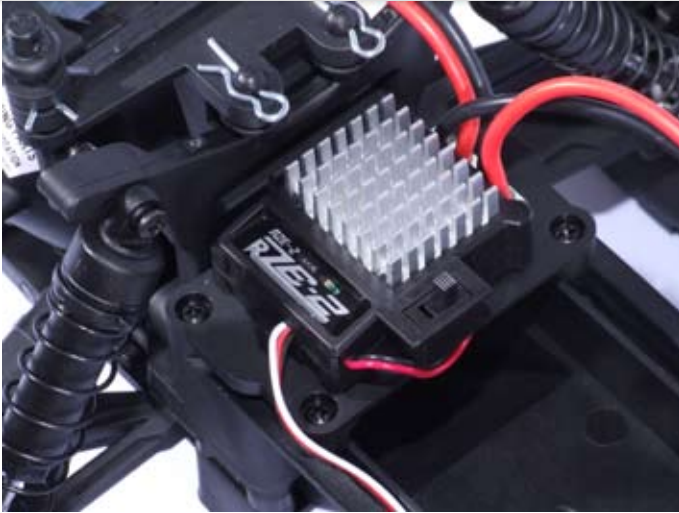
## WIRED

The Step Up Striker Monster Truck uses a different electronic speedo to the buggy and truggy in the range, as this RZE-2 ESC has a much bigger 'hedgehog' heat sink to cope with the extra stress of the larger wheels and the added workload of repeated wheelies, because that's what it does best!

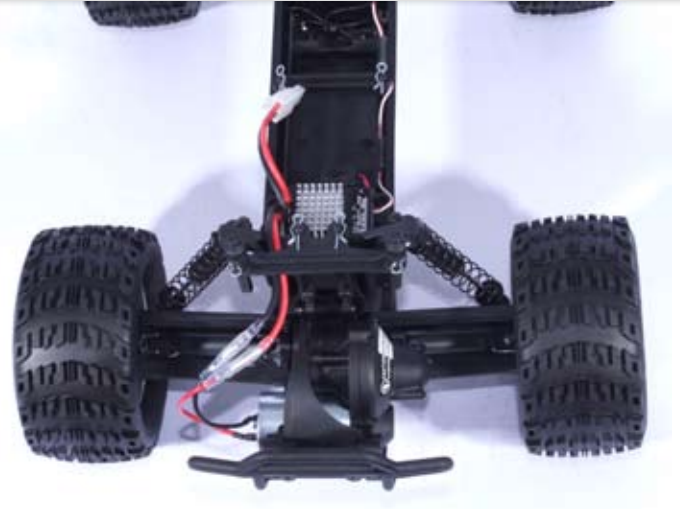
Low voltage protection brings proceedings to a halt if the battery voltage drops below 5.5 V under load, which is fine for a NiMH battery, but just a little low for a 2S LiPo, which should not drop below 6 V ideally. The double repeated 'beep-beep' warning tone accompanied by a flashing red LED lets you know that it has been activated so you know why your fun has been cut short. Similarly I checked for a fail-safe and I'm happy to report there is indeed a built-in system that stops the motor if the signal is lost, whether the receiver crystal falls out or the transmitter gets turned off, or the transmitter batteries go flat, or the truck simply runs out of range, the Striker always came to a halt and a single repeated 'beep' tone alerted me to the fact that it had tripped the fail-safe.

The double-sided, infinitely adjustable, slipper clutch protects the drive line, which you can tune to suit any type of surface and grip level; obviously running loose to maintain traction on a low grip surface and tightening the nut slightly to get better drive on a high grip surface. The final drive uses a 25/65 ratio from layshaft to diff ring gear via an idler gear.

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**A bigger heat sink keeps everything cool under pressure, a simple plug and play automatic set-up means there is no fiddling or programming to worry about**



**The slipper clutch has an easy access hatch, while the top arms are all fixed with flexible links**



**Grease your diff occasionally to keep the metal gears happy**



**Even with the suspension arms level the chassis has loads of ground clearance**

Using a 19/87T primary drive in 48DP the overall ratio works out to 11.9:1, which coupled with the huge 125 mm diameter tyres gives a roll out of 33 mm/rev.

The fan assisted silvercan brushed motor is plenty fast enough to pull wheelies on a fully charged 2S LiPo, and yet draws so little current that you get well over 20 minutes of fun time from a 3000 mAh battery.

## TRUCK TRIALS

The new range of LiPo batteries from CML are the Bionic series, available with Tamiya plugs if you prefer to keep the plug and play set-up, which is idiot – proof thanks to its latching polarised design, so you really cannot get it wrong even when you are in a hurry, but these white plastic plugs are not the most efficient power connectors on the market. The Bionic LiPo range includes several sizes and capacities to suit every pocket, but we went for the smallest of the range, a 3000 mAh 2S LiPo, choosing reduced weight and easily installed stick pack shaped LiPo over the bigger, heavier and more expensive brick packs available. The battery is retained below a single cross strap and it hooks up under the ESC mounting platform, so it's a simple matter of just two circlips to install or remove the battery. A foam spacer at the back of the chassis keeps the battery pushed forward against the front bulkhead, and because the Bionic battery has a balance lead protruding out the front edge of the battery case I had to nibble away at the bulkhead, giving the balance lead some clearance to avoid the guillotine effect as I pushed the battery into place.

A quick charge and discharge cycle to check out the Bionic 2S 7.4 V 30C (50C instantaneous) LiPo battery delivered over 3300 mAh capacity even on a 10 Amp discharge when measured on my 'West Mountain Radio – CBAll' discharge monitor, so I'd consider it to be nearer a 3600 mAh pack on that basis, pretty impressive all round. Weighing in at just 210 g the lack of weight in the battery pack means the handling is improved as a result, and contributes to the wheelies even though it is pushed fully forwards in the chassis.

From forwards to full brake the truck grinds to a halt pretty sharpish, with limited skidding regardless of the surface you are charging around on, as the anti-lock feature of the speedo keeps the wheels in motion for maximum traction and deceleration. Holding full brake will not see the truck disappear off backward, as it will only engage reverse after the throttle trigger is returned to neutral and then reverse selected on purpose. From fully backwards the truck similarly comes



**A fully ball raced driveline and all metal gears means it is one bullet-proof gearbox**



**Telescopic driveshafts are the only way to cope with such long travel suspension**



**Slot in a Bionic 2S LiPo for some wheelie popping action. Just be sure to nibble the chassis front retainer wall to give some clearance for the balance lead**

to a controlled halt if the trigger is squeezed, but will then engage forward motion as soon as the wheels stop turning, without having to return to neutral, and always with a very pleasing wheelie. In fact this little Monster will wheelie even from a standstill if there is sufficient grip available, probably helped by the fact that I chose to run the Bionic LiPo rather than the heavier NiMH more usually associated with RTR's. With less weight and more punch, longer lifetime and more cycles than a NiMH battery it's the obvious choice.

The rear bumper doubles as a wheelie bar, and holding extended wheelies is an art form. Just keeping the throttle jammed wide open will see one rear wheel diff out as the weight is taken by the wheelie bar, and the nose drops until all four wheels are back on the floor and it can continue accelerating properly in a straight line. Getting the nose up and the rear bumper just touching the floor, then modulating the throttle with a rapid on/off action keeps the power from spinning a wheel and diffing out, so with practice you can keep the front end high for the entire length of the street, with the rear firmly planted on the wheelie bar at the back. Once I'd got that figured out the length of the wheelies were only limited by the radio range which worked out to around 50 metres on our model, plenty enough for fun running.

A quick fly by over the 20 metre test run showed a 2 second time, equating to 10 m/s, a 36 kph (22 mph) top speed which feels plenty fast enough, and the low gearing helps extend run time past the 20 minute mark, enough fun time for anyone.

At the end of the test a quick temperature test revealed a totally unstressed system, just 20 degrees centigrade on the battery pack, likewise the ESC and the motor only reached 40 degrees, so there's plenty of scope to gear up for sure. The standard steering servo is perfectly adequate for a lightweight 2WD vehicle, and should last a very long time as it is protected by a soft servo saver integral within the twin post steering system.

The name Striker suggests it plays up front, always on the attack, and it certainly stands out from the range of models on offer from Step Up, indeed we had fun lining up its cousins and jumping over them time and again. Eventually and in true RRCi style we pushed the truck beyond its limit, admittedly in freezing conditions, which are always harsh on plastic components, and we managed to snap a rear lower suspension arm. While removing the lower arm I noticed that the suspension is circlip free and every pivot pin is captured by a screw head overlapping the pinhole itself, so it's real easy to remove and replace with just a 1.5 mm hex driver. Indeed, whilst looking the truck over I couldn't find a single circlip anywhere, a real bonus! Fortunately the spares stock and back up offered through all CML stockists is spot on and we soon had a suspension arm set despatched to my local hobby store and I was back on the road, which is a good thing as the wintry weather means lots

of drifting and skidding about can be had, and my kids have grown very attached to the Striker in a very short space of time. Its chunky looks and rugged performance caught their imagination more than a 4WD vehicle would in similar conditions, because this 2WD monster offers more of a challenge in slick or slippery conditions. Its over square chassis dimensions, wider than it is long, ensures a stable platform with a lively turn of speed, good jumping abilities and lots of fun in the process. Enjoy! **RRCi**

**Ready for fun and easy to drive, the Striker leads the Step Up range from the front**



## QUICK SPEC

**Class:** 1/10th 2WD Monster Truck  
**Type:** RTR Electric  
**Manufacturer:** Step Up  
**Price:** £129.99

**REQUIRED TO COMPLETE**  
 Radio batteries

### OPTIONS FITTED

'Bionic' 2S 3000 mAh LiPo

### DISLIKES

Battery case needs modifying to clear balance cable in LiPo

### LIKES

Fail-safe and low battery cut off  
 Fully ball raced  
 All metal gearbox and diff  
 Competent and agile  
 Wheelies and run time  
 Interchangeable parts and tyres  
 Robust and reliable chassis  
 Loads of ground clearance

## CONTACT

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