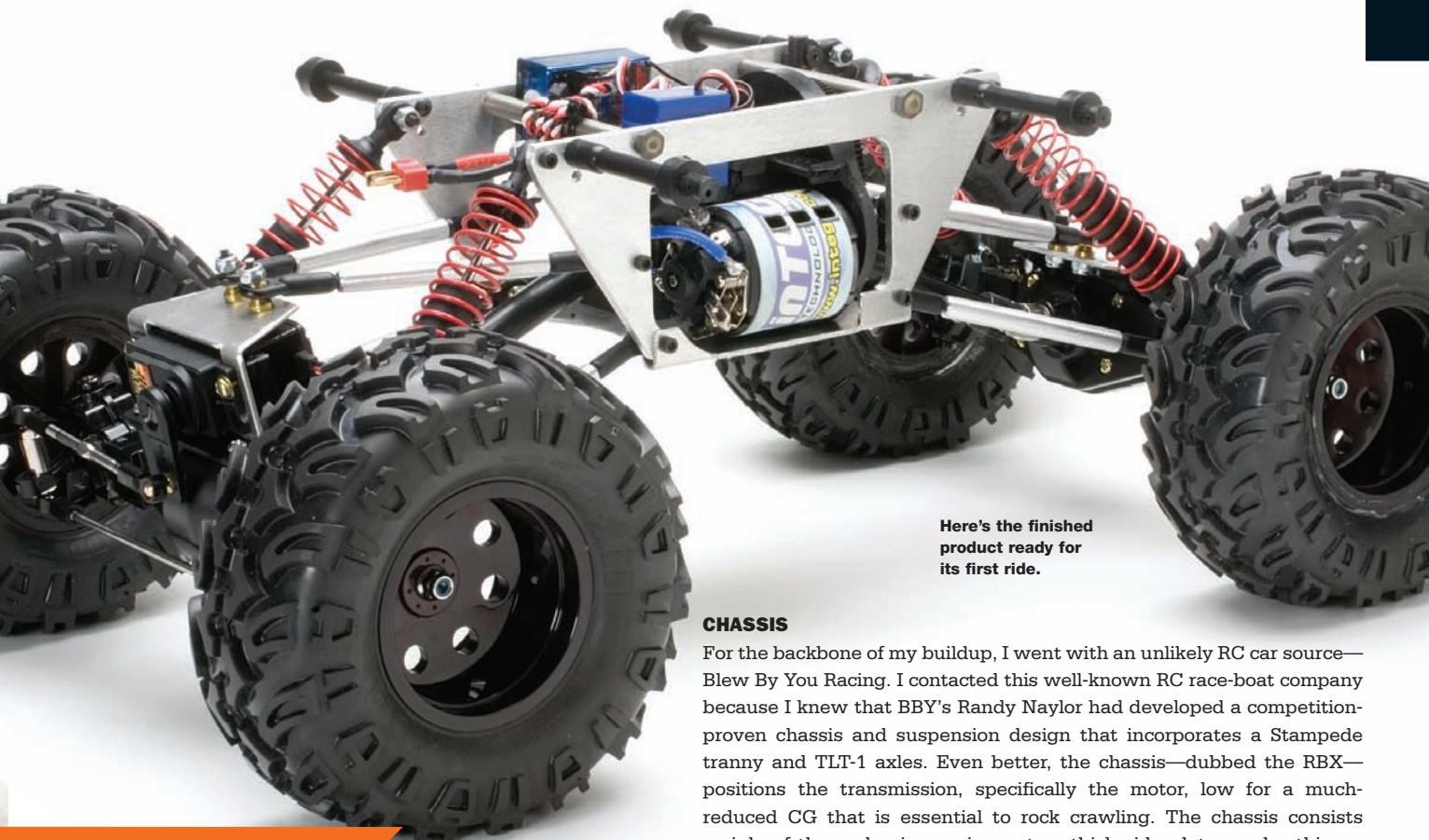


HIT THE ROCKS TLT STYLE

In Max Climber or Rock Buster trim, Tamiya's TLT-1 is unique and durable; it looks cool and gets around pretty good. Tamiya's little truck certainly does a lot of things well, but it simply isn't a serious rock crawler—few, if any, box-stock vehicles are. Yet, it just so happens that, the TLT-1 is one of the most popular foundations for competitive rock crawling. While its axle design is virtually RC gold, the belt-driven, center-diff-equipped transmission just isn't appropriate for the rigors of rock crawling. One of the most popular and economical solutions is to swap in a Traxxas Stampede tranny. This, combined with a new chassis, is a solid start towards building a legitimate, competition-worthy rock-crawling machine, and that was precisely my goal. Check out the results as I go rock crawling with my TLT.





Here's the finished product ready for its first ride.

THE PARTS

BLEW BY YOU RACING

1/4-in. suspension links—\$60
 RBX chassis—\$65
 Rear link mount—\$6
 Stampede transmission—\$45
 Upper link mount—\$6

BOCA BEARING

Ceramic Lightning yellow seal bearings—YCWK115C-YS (4-pack)—\$32

DUBRO RACING

4-40 Heavy-duty ball links—900, \$23

HITEC

HS-5955TG servo—35955J, \$133

HPI

1973 Bronco body—7179, \$26

INTEG

Matrix Pro Lathe Motor 55T—SCM5501, \$20

LRP

A.I. Runner Plus speed control—LRP83060, \$55
 Phaser Competition receiver—LRP8727, \$115

LUNSFORD

2-inch Punisher Plus turnbuckle ball cup kit—1069, \$12
 Fat Boy motor screws (short)—7901, \$8

PRO-LINE

Moab 2.2 tires—1120-00, \$17/pair

TAMIYA

TLT-1 Max Climber kit—47202, \$160

TRAXXAS

Drive yokes, steel—4628X, \$20
 Half-shaft Pro-Pack—1953, \$10
 Stampede front rims, white—3675, \$4/pair

CHASSIS

For the backbone of my buildup, I went with an unlikely RC car source—Blew By You Racing. I contacted this well-known RC race-boat company because I knew that BBY's Randy Naylor had developed a competition-proven chassis and suspension design that incorporates a Stampede tranny and TLT-1 axles. Even better, the chassis—dubbed the RBX—positions the transmission, specifically the motor, low for a much-reduced CG that is essential to rock crawling. The chassis consists mainly of three aluminum pieces: two thick side plates and a thinner bottom tranny mount/skidplate. This setup is extremely stout, and the only thing I wish is that it had more shock-mounting positions.

SUSPENSION

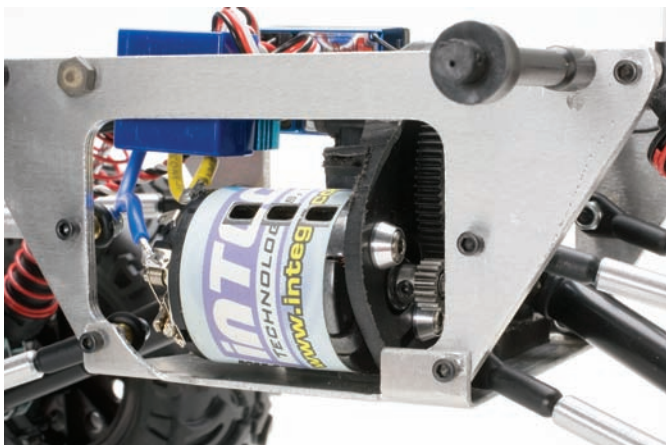
The RBX is designed to use the classic 4-link, 4-shock setup, and BBY can hook you up with everything you need. Almost daily, new suspension concepts are experimented with and shown off on the Internet, but the 4-link continues to prove itself as the overall most versatile, consistent performer in rock crawling. The 1/4-inch-thick aluminum suspension links arrive cut to length and tapped for 4-40 rod; this makes it an easy, no-fuss install. I used DuBro Racing 4-40 heavy-duty ball links and Traxxas T-Maxx shocks. I used the stock red springs overall, but on the left rear, I used a Trinity stiff blue spring to counteract torque twist. Soon I will switch to shorter Stampede front shocks and a 60/40 link setup that places more weight in front.



The rear suspension is a little less cluttered because it lacks a rear steer setup.

TRANSMISSION

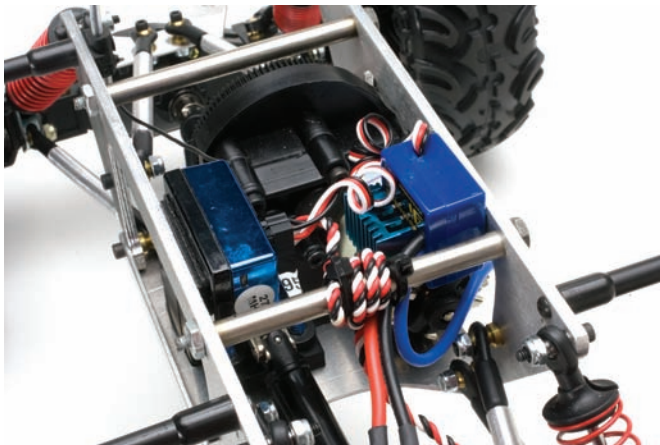
An electric Stampede transmission is an excellent choice for three reasons: it's inexpensive, durable and easy to find. Again, BBY supplied all the needed parts; I love one-stop shopping. I assembled the gearbox as per the instructions, but I permanently locked the diff with J-B Weld. I decided to forgo the use of the slipper. To ensure my transmission and axles would last practically forever, I installed high-quality Ceramic Lightning Yellow Seal bearings from Boca Bearing. I used Stampede plastic slider axles as my driveshafts and also used Traxxas' optional metal output yokes on the tranny and the TLT-1 axles. To mount these on the axles, I used a cutoff wheel to remove the yoke's shoulder section. This allows the yoke to fully seat on the axle's input shaft.



A side view of the RBX chassis. Notice how the heavy motor and transmission sit as low as possible.

POWER PACKAGE

There are many motor choices, but the most popular continues to be lathe motors. BBY hooked me up with a 55-turn Integy unit, and I mounted this torque monster with the best motor-mounting screws ever made—Lunsford Fat Boy motor screws. The Stampede tranny uses a plastic motor-mount plate, and these screws won't dig into the plastic like traditional screws. Next, I installed an LRP Phaser Competition receiver and A.I. Runner Plus speed control. The receiver is extremely reliable, and the compact speed control is not only a great value, but it's also completely waterproof. It has a delay shifting into reverse, but that doesn't matter in competitions, where I try to avoid backing up and being penalized.



The electronics are well protected by rocks when mounted inside the thick chassis plates.

TIRES, WHEELS & BODY

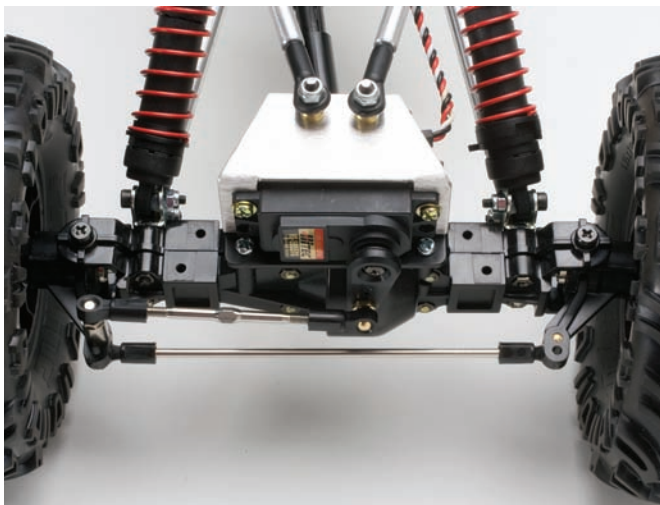
As with motors, there are many choices for rock-crawler tires and wheels. I've had the best luck with Pro-Line's Moabs, so I stuck with these. I cut a bunch of chunks out of the foam to soften the overall package, and I mounted the tires on narrowed Stampede front rims that I had previously dyed black using Rit dye. The 2.2-inch rim diameter is where the class of crawler I'm building gets its name. To fit into the 2.2 class, the vehicles must use 2.2-size rims, which create smaller, more proportional scale-like rigs. This also happens to be the most popular class right now. I've always liked HPI's 1973 shell, and now I had the perfect opportunity to use one. I had Bill Zegers of zegersrgraffixx.com coat the inside with Parma Faskolor paint.



The Pro-Line Moabs are one of the top tires for rock crawling.

FINISHING TOUCHES

It's total overkill, but I selected a stout Hitec HS-5955TG steering servo. With 333 oz.-in. of torque and titanium gears, it's well worth the \$133 price tag. I also used a Lunsford Punisher titanium turnbuckle to connect the servo horn to the steering knuckle, and I plan to add a 4-inch Super Duty Plus Turnbuckle to connect the steering knuckles.



With titanium gears in the HS-5955TG servo, I can skip the servo-saver with confidence. The servo mount doubles as an upper-link mount.



PERFORMANCE

My first trip with the RBX (after the photo shoot) was to a CT Rock Crawlers get-together (ctrockcrawlers.com). This was a good test because I knew a few of the members would have their trail-tested 2.2 rigs out on the rocks. Like a full-size truck permanently stuck in 4 low, the RBX climbed up and over rocks with ease; it worked great. As expected, the Pro-Line Moab tires provided excellent grip and slipped very little on the rough New England rocks; the LRP and Hitec electronics package worked flawlessly. The drivetrain, chassis and steering system all held up very well; in fact, other than some scratches, I can report no damage. I did, however, quickly decide that the T-Maxx shocks were too long and made an unnecessarily tall ride for the type of terrain I often tackle. In our neck of the woods, it seems as if everyone gravitates towards the big vertical stuff, and I believe that with shorter shocks and a 60/40 setup, this rig will perform as well as anything else around. With the present setup, the suspension was smooth and offered plenty of articulation. The changes I plan to make will lower the center of gravity for better stability and make for a slightly softer suspension. I also plan to cut the cups on the front outer axles to allow more steering throw. With rear steering not allowed in competition, 2.2s need as much help as possible to get around tight courses. Overall, I'm thrilled with the RBX's performance. My rig went everywhere I saw the other 2.2 trucks go, but a couple of times, I needed a few more passes to compensate for its tall stance. With a little dialing in, the RBX will certainly be a very capable competition crawler. 🐾

SOURCES

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HPI hpiracing.com
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