

## BEHIND THE WHEEL

1/10 SCALE | ELECTRIC | KIT

**Type** 4WD scale rock crawler

**Price** \$380 (varies with dealer)

**Top speed** 6mph

**Requires** Battery » Radio system » Servo » Speed control » 8 AA batteries

**tamiyausa.com**

As the RC hobby moves steadily to almost all ready-to-runs, Tamiya continues to be a steadfast light at the end of the proverbial tunnel for those who love to wrench. Instead of offering its new CR-01 rock crawler pre-built, Tamiya recognized that this beast would best be served up as a kit. And while it's all new from bumper to bumper, the CR-01 is still classic Tamiya in that it's built to blend performance with scale appearance. On those notes, it delivers. And it gets even better when you factor in that it goes together like a Tamiya; any easier, and it would be RTR. In addition to Tamiya's attention to detail, the Land Cruiser 40 CR-01 features a realistic ladder-frame chassis and a unique suspension design that is truly unlike anything currently used in rock crawlers. Read on to see if Tamiya's first dedicated foray into rock crawler can climb to the top.



# TAMIYA TOYOTA LAND CRUISER 40 CR-01

Tamiya takes a classic to the rocks

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## DRIVE TIME

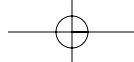
**TEST SPOT**  
LOVER'S LEAP STATE PARK » NEW MILFORD, CT

### RIGHT TO THE ROCKS

Having crawled many times at Lover's Leap, I had a good idea of what a typical rock crawler can and can't do on these rocks. The first thing I noticed is that the Vise Crawler tires gripped well. The tread pattern offers numerous edges to grab, and the compound is plenty soft. The tires found traction on all but the smoothest rocks. The CR-01's unique suspension worked well, and I found myself frequently checking out the cantilevered shocks. As the suspension compresses, the shocks

actually do the opposite and extend—pretty cool. With the battery and motor mounted up front, the CR-01 has excellent forward weight distribution. As a result, it climbed steep inclines I didn't think it could. With traction available, 50-degree and steeper climbs are doable. On long, almost vertical climbs, it often tipped over backwards, but every truck has its limits, and the CR-01 thus far exceeded expectations. If the truck starts to tip backwards, a quick stab of reverse will back you out of trouble and keep you on all four wheels

with the shiny side up. The CR-01 is no comp crawler out of the box and isn't intended to be, but its performance is on par with its looks. That is saying a lot since it's a pretty sharp truck. When side-hilling, the CR-01 performed the same as when climbing. It has its limits, but those limits when it's carefully driven might surprise you. The center clearance on the CR-01 is ample. This helps when breaking over crests after a climb. The smooth aluminum links also help here. They get rather scratched up, but they help the truck slide over rocks. I experimented with the rear suspension and ended sticking with the stock setup.



**ACTION VIDEO  
ONLINE  
RCCARACTION.COM**



**HITTING THE TRAIL**

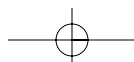
When you just pick a path and do some typical off-road trail riding, the CR-01 is flat-out awesome. It looks scale, but the 1/10-scale Toyota really does things even the most trick full-size Land Cruiser could never do. The tires grip as well on dirt as they do on rock (not something many rock-crawling tires do), and the suspension lets the CR-01 work its way over all sorts of obstacles. The Novak Goat brushless system is fantastic, and since it's a sensed setup, the throttle feel it provides is without match. This really increases your level of control, and with rock crawling being so much about precision, the Novak system

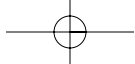
definitely provides a noteworthy advantage over many other brushless setups. The drag brakes on this system work great. Just releasing the throttle to neutral often resulted in cool-looking, rear-wheel-lifting stoppies.

**ROAD RAGE**

Even though it's officially a rock crawler, this Land Cruiser is sure to see plenty of pavement pounding. As expected, out on the tarmac, the truck pushed like, well, a truck with two locked diffs. You can expect big, slow, wide turns. I can't really fault the truck for this, and Tamiya's axle design makes unlocking the differential amazingly easy.

In less than a minute, I had the front diff unlocked, and this gave markedly improved turning. It also didn't ruin the truck's off-road capability. It only presented a problem when a front tire was lifted. Even then, the locked rear diff was usually enough to propel the truck forward. Back on the pavement, I had some fun just driving around. One of the many things I like about the Novak system is that while it dishes out massive torque, it still provides some decent speed. The CR-01 and its planetary transmission is geared so low, however, that top speed was limited to a modest 6mph. Slow, but fast enough to still be fun.

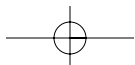




Since the Land Cruiser shell comes clear, I had Zegers R/C Graffix ([zegersrcgraftix.com](http://zegersrcgraftix.com)) lay down a classic and simple paint job using Parma Faskolor.

# → UNDER THE HOOD

It takes a long pair of body posts to reach into the high-rise land Cruiser shell. Note that the rear axle has all the parts required for rear steer but uses fixed links to lock the tires straight ahead.



## SPECIFICATIONS

### TAMIYA TOYOTA LAND CRUISER 40 CR-01

tamiyausa.com

Scale 1/10

Price \$380 (varies with dealer)

#### CHASSIS

Aluminum frame rails with plastic subchassis

#### SUSPENSION

**Type** 4-link solid axle with fixed-length aluminum links

**Lower link positions chassis/axle** 5/1

**Upper link positions chassis/axle** 5/5

**Upper shock positions** 4

**Lower shock positions** 5

**Shocks** Plastic body, oil-filled

#### STEERING

**Type** Drag link

**Servo-saver** Servo-mounted, nonadjustable plastic spring

**Steering linkage** Steel rod

**Ackerman settings** None

#### DRIVETRAIN

**Type** Full-time 4WD

**Transmission** Planetary-type enclosed gearbox

**Transmission ratio** 15.22:1

**Axle ratio** 2.66:1

**Slipper clutch** None

**Differentials** Bevel gear with locking pin

**Driveshafts** Telescoping plastic

**Bearings** Metal-sealed ball bearings

**Spur gear** Plastic 74T

**Pinion** 20T

**Final drive ratio** 40.5:1

#### BODY, WHEELS & TIRES

**Body** Clear Lexan Toyota Land Cruiser 40

**Wheels** Black slotted plastic rim with silver bead-lock plastic rings

**Tires** Tamiya Vise Crawler 2.2 with foam inserts

## New kicks

An all-new rock crawler called for all-new tires and rims. Tamiya wisely went with 2.2-inch diameter rims, which puts the Toyota in rock crawling's most popular class. The three-piece plastic rims are of the bead-lock variety. Each ring is held in by 10 small screws. When properly assembled, you're not popping a bead. The tires are Tamiya's new Vise Crawler treads, and they're soft and flexible and feature a realistic tread pattern with plenty of knobs wrapped around the side for improved grip. Full foam inserts that are very soft can be cut or left as is.

**Bead-locks and rock crawlers just go together. The Vise Crawler tires are soft and feature an aggressive tread pattern for crawling.**



## New Axles

With trucks such as the F-350 and TLT-1, Tamiya has a few solid axle designs already in production, but an all-new design was created for the CR-01 platform. First and foremost, these axles are beefy. With thick plastic cases, metal internals and plenty of gusseting, you are unlikely to tear these units part—even if you go brushless. They are also versatile. Tamiya makes locking

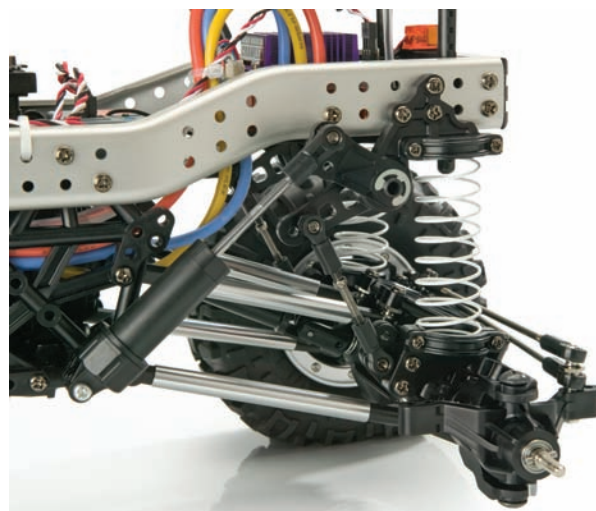


and unlocking the differentials easy. Simply remove a threaded pin, and the locked diff becomes an open diff. The axles and the rest of the drivetrain spin on included ball bearings.

**Tamiya designed a whole new heavy-duty axle for the CR-01. A simple threaded pin locks and unlocks the differentials.**

## Cantilever suspension

A 4-link suspension arrangement locates each axle and allows reasonable amounts of articulation. One of the coolest features on the CR-01 is the use of big coil springs. Perches capture the springs on the axle and the frame, and Tamiya offers optional springs to dial in your rig. The shocks are mounted using cantilevers, so the shock is actually extended as the suspension compresses. Spanning across the chassis are metal stabilizer bars that connect the cantilevers on each side of the chassis. It's a unique setup, but it's also highly adjustable. In addition to different springs and stabilizer bars, you can experiment with a number of suspension geometry adjustments.



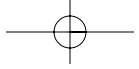
**The 4-link setup is typical for a rock crawler, but the remotely mounted coil springs and cantilevered shocks are quite distinctive.**

## Geared low

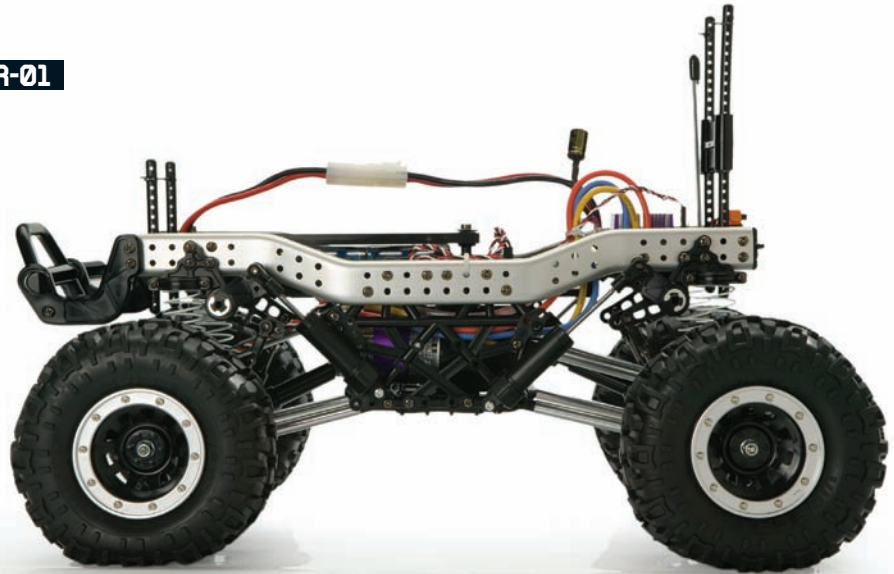
The CR-01 uses an elaborate (by crawling standards) center gearbox to split power front and rear. A metal motor plate creates a secure mount, and large planetary gears should be more than up to the abuse of rock crawling. The stock gear ratio is a slow-spinning, torque-filled 40.5:1, but by switching pinions (16- to 25-tooth), you can get geared as low as 50.6:1 or as "speedy" as 32.4:1. The stock 20-tooth pinion will probably be just right for most of us, but it's nice to know you have options. The entire tranny is supported and protected by a thick plastic skidplate.

**With 40.5:1 gearing and stout planetary gears, the CR-01's transmission provides plenty of rock-climbing grunt.**





## TAMIYA TOYOTA LAND CRUISER 40 CR-01



### FACTORY OPTIONS

- » Spring set—item no. 54029
- » Stabilizer set—54030
- » LED light unit—53909
- » Aluminum battery plate—54046
- » Strengthened wheel axle—54048
- » Luster silver frame rails—54049

### YOU'LL NEED | WE USED

Radio system	Spektrum DX3R spektrumrc.com
Servo	Hitec 5995T hitecrd.com
Motor	Novak Brushless Crawler teamnovak.com
Speed control	Novak Goat
8 AA batteries	Duracell duracell.com
NiMH or LiPo battery	Orion Rocket Pack 4500 NiMH teamorion.com
Charger	LRP Pulsar Competition 3 teamassociated.com
Paint	Parma Faskolor parmapse.com



- » Great-looking body with awesome detail
- » Blends performance with scale realism
- » Lots of adjustability and potential
- » Easy-to-lock and unlock differentials



- » Rather elaborate design for a rock crawler
- » Good forward weight distribution but fairly high CG

**BEST FOR**

Anyone interested in rock crawling

### ON THE BENCH

I'll go officially on the record and say that you haven't fully experienced RC until you've built a Tamiya kit. Tamiya kits are legendary for being fun, easy builds. The new CR-01, while fairly elaborate, is really no different. Here are a few tips to help ensure your build is a smooth one:

#### NOT TOO TIGHT

Most of the screws on the CR-01 can be tightened down nice and snug. The one exception are the pins that lock the differentials. Don't over tighten these, or you'll bind up the whole axle assembly. Use thread-locking compound as the manual shows, tighten the pins down, and back them out one full turn. Make sure the axle spins freely.

#### BETTER-BUILT TIRES

The Tamiya tires work great for crawling, but you can make them even better by cutting the foam inserts in a star pattern. This allows the soft tires better to conform to the rock and thus improves grip. Adding weight to the inside of the front rims also helps climbing. I added 4 ounces of self-adhesive lead weight to each front rim.

#### DISH 'EM UP

Do yourself a huge favor and follow this tip. Tamiya uses a variety of screws,

and many are close in size. The first thing to do is separate the screws by size. This will greatly speed up the build and prevent you from grabbing the wrong screw. The silver screws are somewhat soft, so make sure you use the proper size screwdriver or you'll strip the heads.

#### TRANNY TIP

The center transmission goes together quickly, so take the time and first build it without grease. Make sure everything spins freely, and then add the included thick Tamiya lube. If you build it with grease the first time, it will feel tight, and you won't be able to make sure that nothing is binding. After everything checks out, add lube across each gear.

#### MORE ARTICULATION

Built per the instructions, the rear suspension does not yield much articulation; although this can easily be adjusted by moving the rear

shock-mounting locations, try the stock settings first. Many people will opt to change the shock-mounting locations on the cantilever and on the frame, but keep in mind that too much articulation can hurt as much as too little.

#### LOOSE PINS

Put a dab of silicone-type glue on each hex pin. This will prevent these smooth pins from falling out each time you take a wheel off as the hex often comes off with the wheel.

#### GOING WITH HITEC

Tamiya doesn't include a servo saver that will fit a Hitec servo. This is unfortunate as Hitec servos are extremely popular for rock crawling. I used a Kimbrough Mid-size servo-saver that has held up well and doesn't alter the stock steering geometry. I will eventually switch to a straight servo horn. With titanium gears, the Hitec 5995T will be fine.

### Rating the Tamiya Toyota Land Cruiser 40 CR-01

Here's the deal: Tamiyaphiles will drool over the CR-01. Hardcore rock crawlers, in contrast, might not appreciate its almost over-engineered design, but those hardcore guys who are also Tamiyaphiles will quickly get over it and love Tamiya's first rock crawler as much as the rest of us do. This truck is meant to blend performance with scale realism, and it does this beautifully. It's also a fun build when kits generally are harder to find, and the end result is a durable truck that is quite capable on the rocks. Tamiya's bodies are often without match, and the Land Cruiser 40 is, as expected, fantastic. With the nicely molded body and the hard plastic grill, side mirrors and marker lights, the Land Cruiser is an actual RC model and not just an RC vehicle. Smart touches such as the numerous suspension adjustments and easy to lock/unlock diffs also raise the bar for crawlers. I think you can count on seeing a lot of Tamiya Land Cruisers out on the rocks. My only questions is: which body will they dish up next? **T**

