

MRC/ZD RACING

Racing Minis

Although we in the U.S. are not familiar with the ZD Racing brand, their cars are sold in 12 countries and are now being distributed here by MRC (Model Rectifier Corp.), which has been in the model business for more than half a century. These three 1/16-scale ZD minis are attractive because they closely resemble 1/8-scale buggies. Even more inviting is that they come with a brushless system *and* a LiPo battery. The mini guys were the first to start borrowing these technologies from the airplane guys, so it's odd that I can't recall any other manufacturer offering both in a mini package deal; you'd get one or the other, but not both. So this is something new and at a great price. Let's see



KIT **RTR**

**1/16
4WD MINI
RACER**

**AT A GLANCE
WHO MAKES IT**
ZD Racing, distributed by MRC

WHO IT'S FOR
Everyone who wants a mini RC

HOW FAST
23.44mph

HOW MUCH
\$159 to \$199

WHAT WE LIKED

- Brushless & LiPo!
- Really stable for minis
- Closely resembles 1/8-scale design
- T6 aluminum parts

WHAT COULD BE IMPROVED

- Center gearbox; it's open to dirt
- Truck body; needs better details



**THE
BOTTOM
LINE**

ZD Racing brings us three affordable brushless and LiPo packages that deliver the goods. Beginners will find them fast, fun and durable. Experienced drivers will appreciate their solid handling.

A T R I O O F T I N Y T I T A N S !

■ **DRIVEN REVIEW MRC/ZD RACING RACING MINIS**



The tires are a fairly soft compound, and the buggy's mini-pins hooked up great even on loose surfaces. The buggy's tires are tall and narrow, so they slice up the track like razor blades.



The truggy has truck-size tires wrapped in the same dish-style wheels as the buggy. The tread pattern is more race-oriented than the monster truck's and more aggressive than the buggy's mini-pins.



All three minis have the same chassis and electronics package. Their differences are in the bodies, wheels and tires. The buggy has swaybars and a nifty molded wing.



WHAT YOU NEED TO KNOW

The ZD minis are available in three versions

- ZMB: like an 1/8-scale buggy with its tall, skinny mini-spike tires; the priciest because it has a wing and swaybars.
- ZMR: the monster truck; has a tough-looking truck body and chevron tires.
- ZMT: the truggy; has a sleeker body and race-style truck tires; quickly became the favorite of the guys at our track, where we race the big buggies.

NEEDED TO COMPLETE

- 8 AA batteries for transmitter
- LiPo-compatible charger (also available with kits)

WHAT WE USED

- Dynamite LiPo charger—DYN4060, \$60



With a LiPo battery, you get solid performance from beginning to end. The included 1500mAh RFI battery is good for about 15 minutes of continuous running.



The 3900Kv motor (not included) gets these cars up and going in a hurry.



The suspension's thick turnbuckles allow easy adjustments and should withstand quite a bit of abuse.



The wing is on an adjustable mount—just like the bigger cars.

■ The "Zs'" resemblance to 1/8-scale cars starts with their shaft-driven drivetrain with front, center and rear differentials. Steel dogbones and plastic drive cups connect everything. The drive cups are not slotted but have just small rectangular holes; these not only prevent the drive cups from spreading, but they also help to hold the dogbones in place. Unlike their larger cousins', their center diffs are driven by a steel counter gear in a small gearbox.

■ The 6-gear diffs are wide open, so they can't be tuned back with any kind of oil or grease. The problem with an open center diff is that on high-grip surfaces, all the weight is transferred to the rear, and this causes the front to unload. This was noticeable in the cars, but it did not seem to affect handling.

■ The sensorless ESC is rated at 40 amps and is programmable. It comes programmed for LiPo cutoff, so you only have to plug in and go. The motor is rated at 3900Kv, which is on the milder side of the scale for brushless motors, but it's as fast as a modified brushed motor, and that's more than enough power to have fun with cars of this size. More power would make them difficult to control. Let's not forget that brushless motors don't need all the maintenance of brushed modified motors.

■ The included 2-cell 7.4V 1500mAh LiPo is rated for a 15C discharge rate. Ideally, you'd want to run a 20C battery with brushless, but 15C is an acceptable discharge rate. The batteries are light and deliver the usual LiPo performance.

■ The included high-torque servos are pretty snappy for RTR units, and they contribute greatly to the cars' excellent steering.



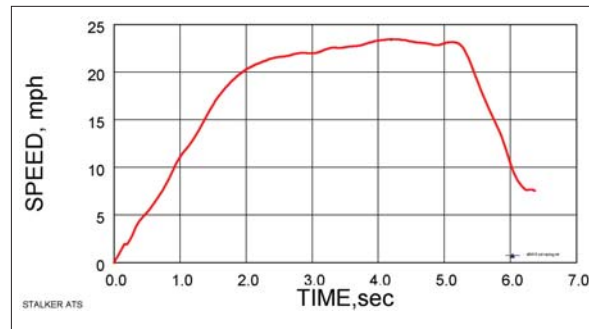
You might think you're looking at 1/8-scale electric buggies, but at 10 inches, these 1/16-scale vehicles are half the size.



The chevron-tread tires are a dead giveaway that this is the monster-truck chassis. The trucks also have larger bumpers that offer more protection than the buggy bumpers do.

DIMENSIONS

- **LENGTH**
ZMB—10.94 in. (278mm)
ZMR—10.08 in. (256mm)
ZMT—10.43 in. (265mm)
- **WIDTH**
ZMB—6.81 in. (173mm)
ZMR—7.80 (198mm)
ZMT—8.35 (212mm)
- **WHEELBASE** 7.05 in. (179mm)
- **WEIGHT** 2 lb. (907g)



103.4 ft. 4.19 sec. @ 23.44mph



ACCESSORIES

Carbon-fiber (CF) chassis—906116, \$46
Center universals (F/R)—908014/908016, \$11 each
CF shock towers (F/R)—908240/908241, \$37/\$42

COMPETITORS

DuraTrax Vendetta,
Associated RC18,
Traxxas E-Revo

**THE LAST
WORD**

If you're in the market for a minicar, it would be hard to go wrong with one of these. Everything you need to go fast is right in the box, and they're plenty durable enough to handle the speed. They can slice up the track with the best of them. The look and feel of an 1/8-scale buggy in a smaller size is just too cool. I already know at least a couple of guys at the track who want one! ©

LINKS

MRC, modelrectifier.com
(732) 225-2100

For more information, please see our source guide on page 137.

PERFORMANCE SCORECARD

TEST VENUE Our private track known as "the Jack Rabbit"
CONDITIONS Hard-packed to loamy

STEERING

Understeer **Neutral** Oversteer
The center diff gives these minis excellent steering. On power, there is just a slight push. The slightest drop in throttle will let the cars turn in a jiffy. The buggy borderlines on oversteer, but it never feels darty—good, especially considering its scale. The truck's steering has more of a numb feel because of its large tires.

BRAKING

Poor Fair Good **Excellent**
No problems here. The brushless ESC locks the wheels on command and brings the cars to an immediate halt. Braking is stable, and the cars do not get out of line when stopping.

ACCELERATION

Poor Fair **Good** Excellent
Acceleration is slightly hindered by the open center differential. Nailing the throttle lifts the front end and causes it to unload, so you don't get that instant, wheelie-popping acceleration out of the gate that most people expect from a brushless car. Once their chassis have stabilized and all tires grab, these cars wind out to top speed exceedingly quickly.

SUSPENSION

Poor Fair Good **Excellent**
The suspension closely resembles an 1/8-scale buggy's and responds like it; it's *almost* like driving an 1/8-scale buggy—but smaller! Our track is rough in certain areas, and the small cars bounced around a bit but were never unstable; they did a superb job of absorbing the bumps

JUMPING

Poor Fair Good **Excellent**
Our track is laid out for 1/8 buggies, and the jumps are spaced appropriately. The 1/10-scale vehicles sometimes have trouble with the jumps, but these little guys just about cleared the double. They are very responsive to throttle input when airborne—especially the trucks because they have more rotating mass in their tires. The buggy felt the most stable in the air.

DURABILITY

Poor Fair Good **Excellent**
Tiny but *tough*! Some might consider the T6 aluminum shock towers, upper wishbone suspension, etc., to be slight overkill at this scale, but it's all fine with me. I drove these cars on a track designed for 1/8 vehicles, and I pounded on them as I pound on the bigger cars, and they're fine. Couldn't ask for more.

SUSPENSION

- Shock position—2 holes on towers
- Camber—F&R
- Toe—F turnbuckles
- Roll center—2 holes in tower
- Swaybar tension—F&R
- Droop—via setscrews in both lower arms

DRIVETRAIN

- Gear ratio—via pinion gear

MISCELLANEOUS

- Wing angle—buggy

TOOLS

INCLUDED

4-way socket wrench, 1.5, 2, 2.5mm hex keys

RECOMMENDED

Small, Phillips-head screwdriver

HARDWARE TYPE

Phillips-head

TIPS

■ The center gearbox gathers dirt and gets gritty. The easiest way to clean it is to remove the clear piece of plastic from the top of the upper brace, and use a hobby knife to scrape away any dirt that's stuck in the gears.

■ The shocks felt as it they needed more oil. Emptying them and filling them with new oil will greatly help handling; 20WT is a good starting oil with minicars.

■ The cars have turnbuckles to adjust camber and toe-in/-out, and the factory settings may be a little skewed. Try 1 to 2 degrees of negative camber and about 1 degree of toe-out as starting points. Camber gauges are handy, but I use a good old-fashioned protractor and ruler.