



MINI REVIEW IRC RACING PHOTON

IRC Racing's new Photon 1/16-scale 4WD electric buggy just might be the fastest RTR electric micro machine on the planet. It's equipped with a Castle Creations Mamba 25 brushless speed control and a Himax 5300 kV brushless motor, but that's only the beginning: it also includes an 11.1V, 3-cell LiPo pack and charger and an FM radio system to keep it under control. Now that's what I call a total high-performance RC package!

SPECS

- Contact** IRC Racing; internet-rc.com
- Price** \$279 (varies with dealer)
- Length** 9.13 in. (232mm)
- Wheelbase** 7.0 in. (177.8mm)
- Width** 7.3 in. (187mm)
- Weight, as tested** 29.20 oz. (828g)
- Chassis** Molded semi-tub w/molded upper deck
- Drivetrain type** Shaft-driven 4WD
- Final drive ratio** 9.6:1
- Differentials** 5-gear bevel w/open case
- Drive axes (F/R)** Universal driveshafts/dogbones
- Suspension type (F/R)** Upper and lower suspension arms/lower suspension arms and adjustable upper links
- Inboard camber-link positions (F/R)** 2/4
- Outboard camber-link positions (F/R)** 1/2
- Shocks** Threaded, plastic-body, fluid-filled
- Upper shock positions (F/R)** 4/6
- Lower shock positions (F/R)** 1/1
- Wheels** Yellow nylon wheels w/7mm hexes
- Tires** IRC Mini Pin w/foam inserts
- Body** Factory painted and trimmed
- Transmitter** IRC 2-channel, 27MHz FM
- Speed control** Castle Creations Mamba 25 brushless
- Steering servo** IRC micro
- Motor** Himax 5300kV brushless



TEST DRIVE

The only adjustment that was necessary to get the Photon running was to set the Mamba 25 speed control's voltage cutoff to 9 volts as indicated in the instruction manual. The first test was to put IRC Racing's 40mph claimed top speed to the test. After setting up the radar gun, I pegged the throttle. The Photon pulled a wheelie and flipped over backwards. Dang! This buggy has some serious pulling power. I took off a little slower and then buried the throttle halfway through the run. The buggy tracked perfectly straight and flew by the radar gun at 40.1mph. IRC Racing didn't exaggerate the speed one bit, but what amazed me even more was the fact that it made 40mph runs 10 times in a row. That's one of the things I like about LiPo batteries; the power remains consistent until the battery is completely depleted.

After making dozens of speed runs and one wheelie after another, I decided to hit the track to test the Photon's off-road handling. I headed to Racers Haven in Bakersfield, CA. There were several other racers practicing with 1/8-scale buggies and monster trucks. Within minutes, I was the undisputed speed king of the track. I had to feather the throttle to get the car rolling because it didn't take much trigger movement to make

the car spin out and do donuts. Once the car was moving, I was able to get on the gas with little trouble. The Photon was a rocket down the straightaway, and I blew past the bigger buggies and trucks every time.

The Photon handles bumpy surfaces well, but whenever one of the tires caught the edge of a crack or divot in the surface, it suddenly caught air and got out of shape. Clearing the doubles—and even triple jumps—was easy because of the abundance of bottom-end punch, and the suspension did an excellent job of absorbing the landings. The Photon corners well, but it pushed considerably under power. To compensate for the push, I went into the corners fast, tapped the brakes momentarily and then pitched the Photon into the entrances of the corners. It held a tight line while exiting, but it spun out whenever I got a little overzealous with the throttle trigger.

The Photon handled the track extremely well, and there wasn't an obstacle it couldn't handle. What impressed me the most was the fact that it ran for nearly 20 minutes before the speed control's voltage cutoff kicked in. I inspected the buggy for signs of wear and damage, but the Photon was in perfect shape and ready for more action.



The shock towers have several shock-mounting locations that allow you to fine-tune your suspension. The oil-filled shocks operate very smoothly right out of the box. IRC includes steel turnbuckles throughout for easy suspension tuning and offers a host of optional aluminum suspension components to increase strength and style.



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A buggy-style dual-bellcrank steering system points the tires in the direction you want the car to go. A built-in servo saver on the right bellcrank protects the servo. A steel turnbuckle links the bellcrank arm to the servo horn.

INCLUDED ELECTRONICS & ACCESSORIES

Mamba 25 brushless speed control

The Mamba 25 brushless speed control is fully programmable and can handle 25 amps of continuous current and momentary 50A surges. It can also handle powerful 8000kV motors and 3-cell LiPo applications, so it's a perfect match for the Photon's power system.

Himax 5300kV motor

The included Himax 5300kV sensorless motor is classified as a 370, but it's narrow and has long motor can. It's typically used to power small electric helicopters and aircrafts, but it's so powerful, efficient and lightweight that it's perfect for micro RC car applications.

3-cell, 11.1V LiPo pack and charger

The 3-cell LiPo pack has a capacity of 1000mAh for long run times. When used in conjunction with the brushless motor, speeds of more than 40mph are possible. An overnight peak-charger is included to charge the pack safely.

IRC FM radio system

The IRC 27MHz FM radio system provides the glitch-free control you need for a high-performance model. The radio features steering and throttle trims, steering dual rate and servo-reversing switches. It also has an LED battery meter and a charge jack in case you decide to use rechargeable batteries.



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THE VERDICT

The Photon is fun and exciting to drive. It also has a great deal of racing potential that can be unleashed with a little suspension tuning and tweaking. It's a well-rounded RTR package that will appeal to beginners and seasoned racers alike. It's very compatible with the Kyosho Mini Inferno, so you can mix and match various parts. The Photon has a variety of factory performance upgrades available so you can hop it up to your heart's delight. I look forward to racing the Photon soon. 🏆

SOURCES

IRC Racing; internet-rc.com
Sirio, distributed by Kyosho America; kyosho.com
Team Associated; teamassociated.com

ASK THE MICRO GUY

I have an RC18T, and I was thinking about converting it into a buggy or a rally car.

What are the differences among the RC18 series vehicles?

Mark Lest » Valley City, North Dakota

VEHICLE	SPUR GEAR	PINION GEAR	SHOCK TOWERS	SUSPENSION ARMS	UPPER LINKS	DOGBONES	WHEEL WIDTH (F/R)	TIRES
RC18T	55T	14T	Stadium truck	Long	Long	Long	Standard/standard	Off-road tread
RC18MT	60T	10T	Stadium truck	Long	Long	Long	Standard/standard	Monster-truck tread
RC18B	55T	14T	Buggy	Long	Long	Long	Narrow/standard	Off-road tread
RC18R	55T	17T	On-road	Short	Short	Short	Narrow/narrow	On-road tread