



XRAY X10 PAN CAR

DIAMOND IN THE ROUGH**1:10**
scale**2W**
drive

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WORLD GT WAS INTRODUCED BY THE INDUSTRY AS A SIMPLE CLASS THAT IS EASIER, AND LESS EXPENSIVE, FOR THE AVERAGE RACER TO BE INVOLVED WITH. These pan cars are a blast to drive and have stable handling. The traction generated makes them very inviting to those ready to test their skills. XRAY has been in the racing market now for quite a while, and their reputation for wins is equal to the quality products they sell. Now with a link design, users of one- and two-cell LiPos have another option. Paul Lemieux drives one, so I was anxious to see what all the hype is about. Time to test the ol' reflexes.

Just because it's considered simple doesn't mean it's easy.



Foam tires used on carpet is similar to driving on Velcro.

PART #: 370501
STREET PRICE: \$275
PRICE AS TESTED: \$1,256

SETUP TIME: 7 hours
EXPERIENCE LEVEL:
Intermediate to advanced

1:10
scale



2WD
drive

LAYDOWN SERVO: Pan cars have always had to make a design decision between laydown and an angled servo, and each design has its own pros and cons. The X10 Link chooses to lay the servo down.

02

BATTERY MOVEMENT: The car uses small screw-in braces and strapping tape to keep the battery in place, and single-cell LiPo and four-cell NiMH users have the ability to tune the car's handling by positioning the battery in three different positions.

01

BRUSHLESS POWER: The rear pod is designed to allow for the extra space needed for brushless power. The pod is also balanced to centralize this weight and can be adjusted to use older brushed motors as well.

03

LINKED UP: New for XRAY is the use of side links with springs. This is a fairly common design these days, but now incorporated in the X10 Link and X11 Link 1/12-scale pan car.

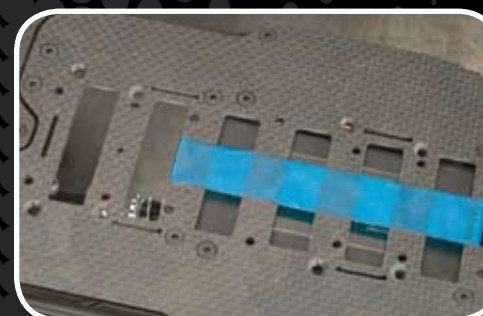
IT'S VERY SHOCKING: The center shock is a bladder unit that is much nicer than what common pan cars have, and it gives more consistent results.

01

DAMPEN IT
Side-to-side dampening is accomplished with a sideways dampening unit. This seems to be a common way to do this, and XRAY's version is a notch above in consistency and reliability.



The X10 link is all about accommodating different forms of battery technology.



02

LIPO POWER
The X10 link is all about accommodating different forms of battery technology with an emphasis on LiPo power. Drivers can choose NiMH or LiPo packs with one or two cells, but most will choose LiPo, and the car is designed primarily for this by placing the cell(s) down the center.

03

CASTER THE FRIENDLY GHOST
Standard caster is pretty straightforward and done by moving the upper arm and using shims, but reactive caster is where things get a bit more interesting. Reactive caster is adjustable by changing the front upper pivot with different inserts, and this gives very precise and consistent results.



VEHICLE INFO

CHASSIS

LAYOUT: Pan with upper deck & linked rear pod
THICKNESS: 2.5mm
MATERIAL: High-grade graphite

SUSPENSION

TYPE: Linked rear pod, spring and kingpin front
TURNBUCKLES: Swiss 7075 Aluminum
STEERING: Direct with servo saver
SWAYBARS (F/R): None

SHOCKS

BODIES: Plastic
DAMPING (F/R): 350 cSt / 350 cSt
PISTONS (F/R): None / 2-hole
SPRINGS (F/R): Gold / silver

DRIVE TRAIN

TYPE: Direct drive
DIFFERENTIAL: Ball diff (rear only)
AXLE TYPE: Graphite/aluminum
TRANSMISSION: None
SPUR GEAR MATERIAL: Plastic
BEARINGS: Metal-shielded

GEARING

1st
PINION/SPUR: 31/96, 64-pitch
GEAR RATIOS:
PRIMARY: 3.09:1
INTERNAL: NA
FINAL: 3.09:1

BODY, TIRES & WHEELS

BODY: Not Included
TIRES (F/R): Not Included
DIAMETER/WIDTH: Not Included
HEX SIZE: NA
WHEELS: NA

DIMENSIONS

WEIGHT: 1 lb., 14.6 oz. (866g)
TRACK WIDTH (F/R): 7.68/7.48 in. (195/190mm)
WHEELBASE: 9.92 in. (252mm)
RIDE HEIGHT: 1.16 in. (4mm)

TESTING

Testing was done at the TQ RC Racing carpet track in Chino, California. The track is a good size with a challenging layout and has a good mixture of low- and high-speed turns. The super-flat surface has a nice system of plastic lane dividers with corner flaps that are pretty friendly on car parts (it's all relative), letting drivers get really aggressive with their driving. Traction was medium for the day, and the facility has a no odor rule for the traction compounds allowed, limiting the level of the groove to something that is fairly common and reasonable for an Ozite track. I ran the Jaco Lilac spec tires and trued them down to "big event/ Scotty Ernst" size and let this dog hunt. Woof.

Acceleration and Speed • Foam tires on carpet tracks give drivers the highest combo of traction in RC racing. Although pan cars are only 2WD, having direct drive combined with a solid power to weight ratio means speeds are at white-knuckle level. These cars are a test of nerves and reflexes, and even the mildest motors can produce speeds not meant for the faint of heart. Fortunately, World GT cars are designed to calm the twitchiness of this speed compared to their 1/12-scale counterparts, but be prepared. No slipper and immediate response from driver input can be very eye-opening.

Rating: 10

Braking • World GT cars are driven hard with smooth throttle fingers, but since the cars carry so much corner speed and hold such a tight grip on traction, using your brakes is very rare. They are only 2WD, but unless you get into a panic situation, you will most likely never touch your brakes. If you do happen to need them, be careful since the back end will come around and try to keep the car pointed straight. Just set your radio so that the brakes come on softly.

Rating: 7

Low-Speed Handling • I wouldn't call anything these cars see low-speed, but the XRAY X10 Link handled the tight and technical sections pretty well. The car did have a bit of push off-power, and I needed to really crank on the wheel to run a tight line, but the car was run in the box stock settings. With some tuning and some extra parts, I'm sure this could easily be improved.










Rating: 9

High-Speed Handling • Unlike 1/12-scale pan cars, these cars are very stable and composed at Mach 7. This makes them friendly to less experienced drivers or drivers who want to run some tight battles. There were some big sweepers coming on to, and exiting the straight, and this is where the car was really tested. I was able to run pretty confident, and the car had solid dampening. The car had a bit of push, but with the right line, it carried speeds comfortably.

Rating: 10

XRAY
X10 PAN CAR

TEST GEAR

RADIO:	Airtronics M11, 90270TX75, \$270	
MODULE:	Spektrum Pro SM1001, \$110	
RECEIVER:	Spektrum SR3500, SPM1210, \$100	
STEERING SERVO:	Team Orion Vortex Digital VDS-1007, ORI68001, \$84	
SPEED CONTROL:	SpeedPassion GT 2.0 Pro, EXT98802Prob, \$200	
MOTOR:	SpeedPassion 8.5R Turn V-3.0, SP13885V3, \$85	
BATTERY:	Reedy 3.7V 4600 mAh 40C LiPo, ASC719, \$62	
RECEIVER BATTERY:	Hobbico LiFe Source 6.6 V 200 mAh Rx, HCAM6402, \$20	
TIRES:	Jaco World GT Spec Lilac, JAC2100, \$12 / Jaco World GT Spec Lilac, JAC2110, \$15	
BODY:	Protoform Sophia GT 200 mm, PRM1502-00, \$23	

CONTACT

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PROTOFORM:	www.prolinerracing.com
SPEEDPASSION:	www.speedpassion.net
AIRTRONICS:	www.airtronics.com
SPEKTRUM:	www.spektrumrc.com
HOBBICO:	www.hobbico.com
REEDY:	www.rc10.com
TEAM ORION:	www.team-orion.com
JACO:	www.jacoracing.net

There is still a learning curve for running foam tires on high-bite Ozite.



XRAY X10 PAN CAR



SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT

8	INSTRUCTIONS
9	PARTS QUALITY/FIT
9	DURABILITY
10	TUNABILITY
9	OVERALL PERFORMANCE
9	VALUE

HITS

- ▲ Quality materials and fit
- ▲ Lots of tuning options
- ▲ Plenty of battery options

MISSSES

- ▲ Servo fitment
- ▲ Setup help

MAIN COMPETITION

CRC Gen-X Pro 10, SpeedMerchant World GT 3.7, Team Associated RC10R5 Factory Team Kit, Corally 10SL

WHO IT'S FOR

On-road racers looking for something a bit simpler and still have edge-of-your-seat performance.

WRENCHING

Maintenance • Pan cars are fairly simple in design, and the details are where things can make a difference. Fortunately, everything on the X10 Link is pretty normal, and changing things like ride height to match the wear of the tires is as easy as anything else out there. However, other things to make wrenching a bit quicker seem like they haven't been used. Overall, though, things were straightforward. Unfortunately, the manual for the car is less extensive than what XRAY kits are known for. The kit seems to be designed for a specific servo, and although the instructions claim that different sizes can be used, in reality a bit of improvising and extra parts were needed to make mine fit. The tuning manual is for an X-11 T-plate car, and only some of the theories can be applied. Since this car is a link design, be prepared for your own ideas in regard to the back end. Items aren't always marked clearly in the instructions, and changes that can be made aren't really addressed. This is still pretty good compared to the other manuals in the industry but below XRAY's normal high standards.

Rating: 8

Wear and Tear • The craftsmanship and tolerances on the X10 Link are on the same high level of other kits by the company, so in general things seem to stay in place better and develop less slop. I did whack some boards pretty hard driving through some of the chicanes and S-turns on the track, but other than keeping an eye on the tires for chunking and checking the tweak, the car held together well. The inherent design of pan cars means you are most likely going to be hitting boards on a track at speed, but for the class, the car is fairly stout.

Rating: 9

Tuning • Like all pan cars, tuning is pretty simple, and the effects can be felt right away. The car's layout positions the batteries down the middle. Depending on if you choose NiMH or LiPo in either single or two-cell, you have options for weight distribution. Dampening is done by some pretty nice shocks that are a cut above the norm and give you more consistent and predictable traits. Reactive caster is done by a set of inserts, and you can change the balance for either brushed or brushless motors. The front kingpin suspension is standard as well, and springs are common.

Rating: 10

CONCLUSION

World GT cars are catching on at tracks throughout the USA and abroad due to the cars' simple design. Although they can be driven on asphalt or carpet, the reality is that you still need to run them on prepared tracks that are smooth and offer high traction in order to take advantage of the cars' true nature. This newest X10 Link car makes things easier as battery technology progresses. Even though it is still a pan car, the stability of the car makes it less intimidating to those considering it for the first time. The cars were originally developed to incorporate ease of use along with more realistic bodies, and that may be less valid these days. But for the money, you will have a hard time finding another class with this much speed and racing action. Fortunately, XRAY brings us quality and craftsmanship in a car that works great and can be adapted to different rules. 🏁

Link = death of the t-plate design. Sort of . . .





POWERPLANT INFO

I decided to run the Speed Passion 8.5T V3.0 motor in the car to see the car's real characteristics. The motor isn't used for spec racing and in reality won't be used for mod racing either, but the motor gives the car real power without having to really worry about all the guidelines of a spec class. I set the ESC to a zero timing profile and geared the car conservatively so things don't run that knife-edge of performance vs. failure. I found the power to be smooth and controllable and still angry enough to get the car up to Mach 3 speeds. The sensored design worked well, and the solder tabs were in a place that made things easy for installation and maintenance. The sintered rotor can be changed, but I left the stock one in and ran it in mostly default settings.



MOTOR DATA

MOTOR: Speed Passion V3.0

WIND: 8.5T

ROTOR TYPE: Sintered

SENSOR: Yes/ Removable

SOLDER TABS: Yes

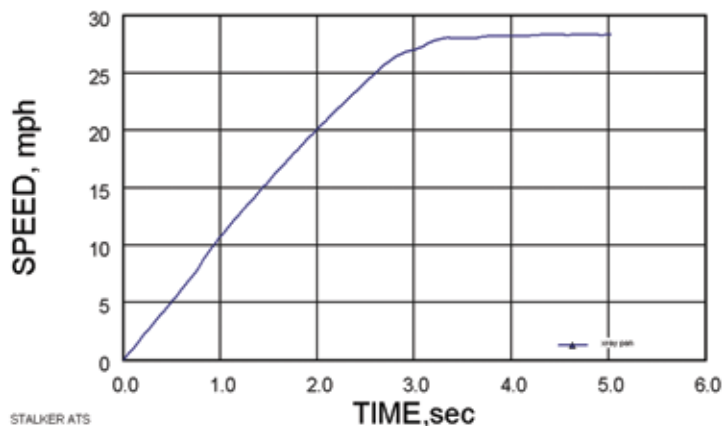
PERFORMANCE INFO

ACCELERATION CURVE

0-60 FT: 2.85 sec. @ 26.2 mph

TOP SPEED: 29.3 mph @ 119 ft.

AVERAGE RUN TIME: 10 minutes



TEST CONDITIONS

WEATHER: Indoor carpet track

TEMP/HUMIDITY: 78 °F/20%

**BAROMETRIC
PRESSURE:** 29.99 in.

ALTITUDE: 692 ft.

TRACK TYPE: Medium-bite Ozite carpet

HANDLING

TURNING RADIUS: 2 ft., 2 in.

ON POWER: Neutral

OFF POWER: Slight understeer

BRAKING

CONTROL: Poor Satisfactory Good Excellent

FADE: Poor Slight None

OVERALL: Poor Satisfactory Good Excellent

Like Juraj Hudý's mustache, simple but elegant.

