

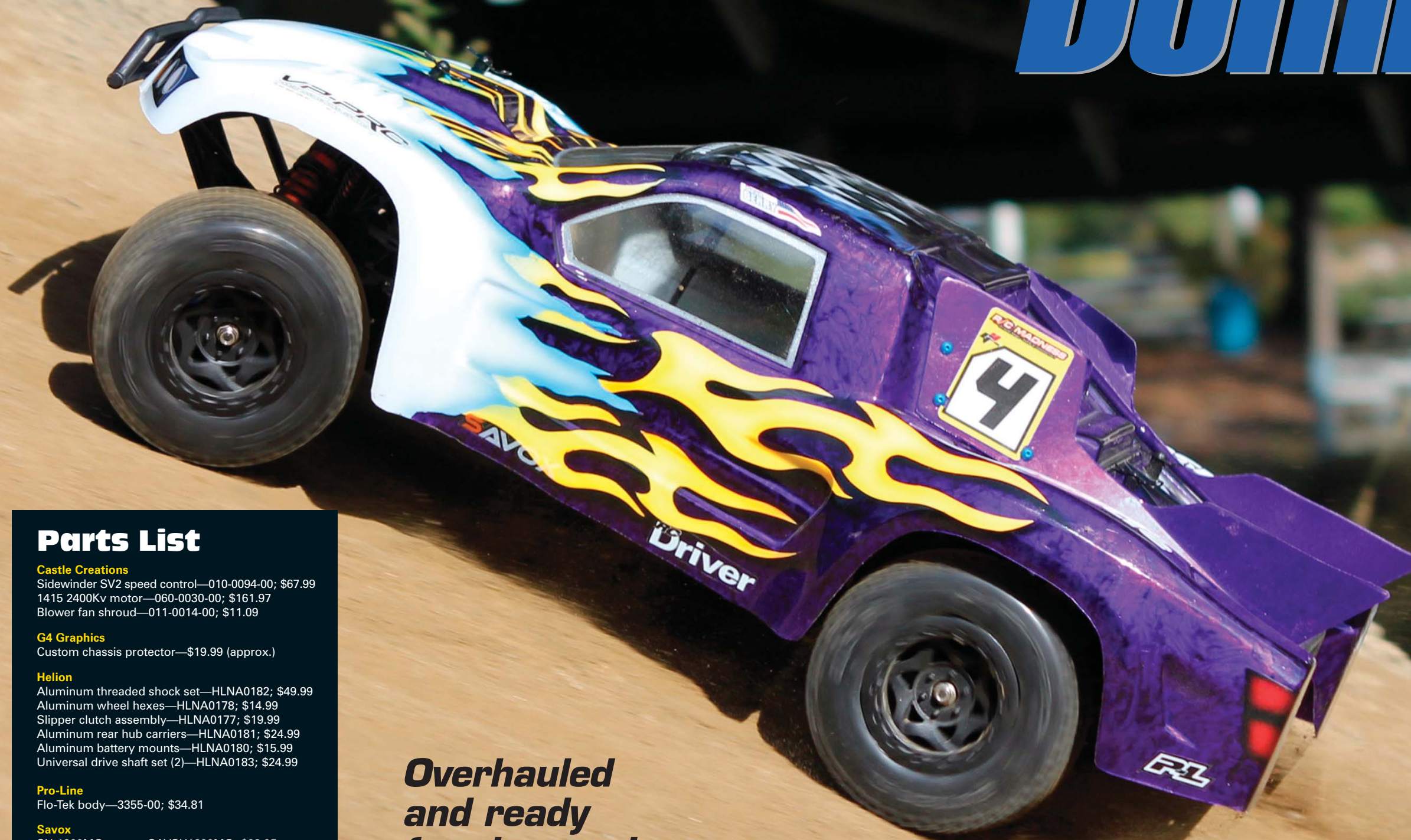
PROJECT

WORDS DEAN BERRY PHOTOS GREG VOGEL

HELION

Dominus

10SC



Parts List

Castle Creations

Sidewinder SV2 speed control—010-0094-00; \$67.99
1415 2400Kv motor—060-0030-00; \$161.97
Blower fan shroud—011-0014-00; \$11.09

G4 Graphics

Custom chassis protector—\$19.99 (approx.)

Helion

Aluminum threaded shock set—HLNA0182; \$49.99
Aluminum wheel hexes—HLNA0178; \$14.99
Slipper clutch assembly—HLNA0177; \$19.99
Aluminum rear hub carriers—HLNA0181; \$24.99
Aluminum battery mounts—HLNA0180; \$15.99
Universal drive shaft set (2)—HLNA0183; \$24.99

Pro-Line

Flo-Tek body—3355-00; \$34.81

Savox

SH-1290MG servo—SAVSH1290MG; \$68.95

Thunder Power RC

3300mAh sport race lipo—TP3300-2SSR35; \$49.99

VP Pro

Axman short course tires—VP805SC-UF-O; \$13.49

**Overhauled
and ready
for the track**

I was completely blown away a short while back with the value and performance of the Helion Dominus 10SC. For just \$200, it is one heck of a vehicle and a value that is very hard to beat. Well, I can't leave things in their stock form all that long and I decided to give it an electronics upgrade to squeeze some additional power out of it. Additionally, Helion released a batch of orange anodized option parts and a few other non-orange goodies that I just had to have. The result is a short course basher turned racer in just a few hours!

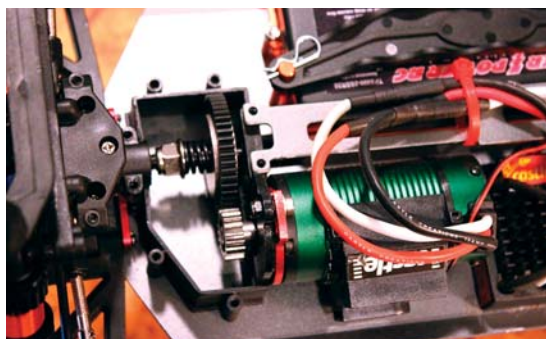
The first thing I needed to do to the Helion Dominus 10SC was remove all the stock electronics. Removal of the steering servo was rather easy with just four screws holding in the servo and nine screws attaching the servo saver to the bellcrank. I then removed the screws of the gear cover and removed the stock brushed motor. Lastly, I pried free the stock speed control from the chassis and this gave me a nice bare chassis ready for some new upgraded electronics!

With all the electronics removed I headed for the front end first and decided to replace the stock steering servo. I opted for a quick and powerful Savox SH-1290MG metal-g geared steering servo. The servo costs about \$65 and is well worth the investment as it is indeed quicker and has more torque than the stock servo. It also used the same servo horn as the original servo and fit like a glove.

Once the steering was taken care of, I focused my attention on the motor of the Helion Dominus 10SC. Since I have always had great luck with Castle Creations products, I decided to install a 1415-2400Kv 4-Pole brushless motor. This long can (1.5-inch) motor is very tough and can even be used with up to 4S LiPo! Since I am only



Thunder Power's 3200mAh Sport LiPo pack was used to power the project, the battery fits tightly into the new aluminum battery cradle, the maximum size the battery can be is: H-23mm, W- 46mm x L-138mm.



Helion's new adjustable slipper clutch helps smoothen the power transfer to the driveline when running a faster power system.

going to be using it with 2S LiPo (well, most of the time) in the Dominus, I decided not to re-install the brass 15-tooth pinion gear and swapped it out for a 20-tooth gear. This should give the truck some good top end.

To compliment the motor I decided to install a Sidewinder speed control from Castle Creations. Before I installed it

though, I hooked it up to my Castle Link to make sure the software was up to date (it was) and to boost the timing to 20 degrees. While this might seem high, the 2400Kv motor can handle 4S LiPo so I think boosting it up this high, since I will be running 2S LiPo, should not be an issue. Just to be safe though, I installed a Castle blower fan onto the 1415-2400Kv 4-Pole motor to ensure it operates cool and efficiently. The Sidewinder speed control fit perfectly between the motor and receiver box and the wires were just the right length.

Next, I moved on to the battery, or should I say battery compartment? The chassis on the Dominus 10SC is designed to accept a flat 7-cell stick pack type of battery. Since I mainly use LiPo batteries, I changed to the short, 6-cell battery placement configuration when I installed the new Helion orange anodized battery mounts. The stock shocks on the Dominus work very well and even after running too many packs to count, they had

leaked just a little oil. Even so, the installation of the new, Helion big bore orange-anodized threaded shocks was a must. They are even smoother than the stock units and the threaded bodies allow adjustments on the fly.

On the back of the Dominus I removed the stock wheel hexes, hubs and driveshafts in favor of the Helion upgrades. The new universals operate more smoothly than the stock dogbone/driveshaft combination and should a hard collision occur, there is no dogbone to fall out and get lost. Coupled with the new orange anodized hexes the wheels run much truer. The new hubs look great, are more durable than the stock plastic parts and are less likely to bind. The changes I made to the front end took no time at all. To swap out the stock wheel hexes and driveshafts, I just popped off the stock plastic hex and removed the upper A-arm hinge pin to gain access to the dogbone/driveshaft.

The center slipper is a bit more difficult



and time consuming to install. The gear cover, rear shock tower, diff case and center brace all must be removed. In addition, the pinion gear attached to the stock spur gear unit must be removed and installed onto the slipper assembly. During reassembly, I made sure the gear mesh was properly set and the gear cover area was clear of dirt and debris.

The stock shoes on the Dominus are good all-around-tires, but I will be using this Dominus on dirt and needed some tires that will really hook up. To address this I went with four fresh Axman short course tires from VP-Pro. Time for a new top! I like the look and performance of the Flo-Tek body from Pro-Line so I sent a clear shell

over to Kolors by Kropy for some custom painting. To say I was pleased with the outcome is a slight understatement! Lastly, my buddy Justin over at G4-Graphics made me a sweet custom chassis protector that not only looks great, but it is mighty durable and won't peel off.

THE DRIVE

I brought my completely revamped Dominus 10SC to R/C Madness in Enfield, Connecticut to throw down some test laps. As I pulled back the throttle, the Dominus 10SC took off, tracking extremely straight and with limited wheel spin. This can be directly attributed to the new Helion slipper clutch that helped smooth out



Left: The new rear hubs improve the durability of the Dominus and the clamping hex's are a big improvement over the stock units. Right: Up front, Helion's shocks offer ultra-smooth suspension damping and is a must have for any Dominus owner. The new universal axles are a highly recommended option too especially in the front.

the power transfer from the extremely powerful Castle Creations brushless motor to the wheels. Down the long straightaway, the truck had great top end and had a predictable, linear power band. Through the rough sections of the track the new threaded aluminum shocks worked admirably at soaking up the terrain, helping keep the VP Pro tires in contact with the ground. Even before all these changes the Dominus 10SC jumped great, but now, WOW! The Castle Creations power system gave the truck ample power to get even more air so that it was able to clear every obstacle at the track. While airborne, the truck had minimal "kite" effect with less air getting under the body thanks to the Pro-Line Flo-Tek body. On landing, the suspension compressed and the back



end of the chassis just scuffed the ground as the suspension settled; this enabled me to get back on the throttle rather quickly.

WRAP UP

I was already a fan of the Helion Dominus 10SC in its bone stock form. Now, with all the new option parts from Helion as well as Castle Creations, Savox, Pro-Line, VP Pro and G4 Graphics, the modified Dominus 10SC is a potent competitor that is more than likely going to be able to make the A-Main week in and week out when club racing at R/C Madness. ©

- Links**
 Castle Creations castlecreations.com, 913-390-6939
 G4-Graphics g4-graphics.com, 866-884-2207
 Helion helionrc.com, 402-434-5385
 Pro-Line prolineracing.com, 800-899-7223
 Savox savoxusa.com, 800-622-7223
 Thunder Power RC thunderpowerrc.com, 702-228-8883
 VP Pro vp-pro-usa.com, 941-706-7893

For more information, see our source guide on page 81.