

## Castle Creations Inc. Releases High Performance BRUSHLESS SENSORED MOTORS to R/C Surface Markets



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Olathe, Kansas , November 3, 2016 (NewsWire.com) - Castle Creations Inc., the leader in electronic speed controllers (ESC) and BLDC motors for radio controlled (R/C) car, air, and multi-rotor hobby markets, as well as commercial UAV and drone markets, has been providing award winning brushless sensorless motors to R/C enthusiasts worldwide for more than a decade. In response to overwhelming requests, they have brought technological advancements together to deliver unprecedented performance in a new **BRUSHLESS SENSORED** motor line.

Efficiency and reliability were the key elements driving the development of a sensed motor design that could be pushed harder, run longer, stay cooler, and withstand harsh elements. To achieve all of these performance demands and more, Castle engineers integrated rotor position sensor technology with an improved high power and high efficiency motor design. Users will experience **PRECISE THROTTLE CONTROL** and **BUTTERY SMOOTH** starts plus the **RAW POWER** and **LONGER RUN TIMES** that Castle's highly efficient brushless sensorless motors are known to produce. The higher the efficiency of a motor the more power it can produce without overheating; the less power it takes to produce the same output power; and the less energy it turns into heat. Efficiency equals performance, these motors are ready to be pushed harder, run longer and stay cooler.

Without a robust and reliable design, efficiency will only go so far. Oversized NMB bearings and a vibration dampening system were used to guarantee the longest bearing life possible. High-strength, high-temperature grade neodymium sintered magnets combined with a high-strength Kevlar wrap ensures the integrity of the rotor is not compromised during harsh running conditions. A proprietary winding technique is also used to produce a stator assembly that is the lowest possible resistance, resulting in a cooler running, and longer lasting, motor.

**Key features of the new SENSORED MOTORS include:**

- Designed and supported in **Olathe, KS USA**
- **IMPROVED 4-POLE 12-SLOT** design boasts exceptional **EFFICIENCY** and produces **LESS HEAT**.
- **QUIETSENSE™** technology shields the sensors from magnetic field noise through the use of a **FLUX SHIELD™** in conjunction with secondary Sense Magnets delivering even **HIGHER PRECISION and MORE EFFICIENT** startups.
- Fully optimized design eliminates the need for mechanical timing adjustments. Castle's sensor alignment method delivers uniform timing and torque in both directions, automatically.
- **REBUILDABLE** design allows users to replace front end bell/bearing assembly or rotor/shaft assembly.
- ROAR standard sensor port and labeled connections.
- Updated modern and sleek design; looks as cool as it performs.
- When paired with a Castle Creations **SMARTSENSE™** sensor supported ESC, like the MAMBA MICRO X, MAMBA MAX PRO or MAMBA MONSTER X, you can unlock advanced tuning capabilities that Castle Link[1] provides specifically for sensed motors.

"R/C is constantly evolving. Drivers in all applications demand clean starts when coming off the line. Crawler fans require high-precision low speed control and torque for climbing, racers need precision and predictability, and dragsters don't have a millisecond to spare. Our goal was to design a motor that addressed all of the performance and reliability needs of the R/C surface market", says Jonathan Feldkamp, Director of Engineering. "Users will reap the benefits of longer run times on one battery and a cooler running motor that can be pushed harder."

JONATHAN FELDKAMP, DIRECTOR OF  
ENGINEERING

**SMARTSENSE™** uses the motors sensors to start the motor to provide smooth starts, excellent torque, and low-speed drivability. Once the motor is turning, it seamlessly transitions to Castle's **ULTRA- EFFICIENT** sensorless mode. Electronic timing in **SMARTSENSE™** will advance timing automatically for peak performance during all driving conditions. This allows users to combine the best of both worlds in an unrivaled **HYBRID** between smooth sensed startups and high-efficiency sensorless drive.

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Castle Creations' initial release of eleven sensed motors, suited for 1:10 and 1:8 scale R/C Surface enthusiasts, will begin shipping in November from Olathe, Kansas.

Source: Castle Creations Inc.

## Additional Images

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**QUIET  
SENSE**

**SMART  
SENSE**

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