The Reedy NEO-One

has no brushes or springs to wear out, and no commutator to cut. Its completely sealed design reduces maintenance in any racing environment, on road or off road.

The NEO-One is Reedy’s sensored brushless motor which works interactively and intelligently with the LRP Sphere Speed Control. When used in conjunction with the LRP speed control, the combo offers the same linear performance and braking feel that you’ve become used to with conventional brushed motors. The Reedy NEO also features direct U-solder tabs as well as a connecting socket on the backplate to enable you to use the NEO with other brands of brushless speed controls. It fits standard “540-size” motor mounting holes and uses all conventional size pinion gears.

#110 NEO-One 1 Star Brushless motor: 8.5 turns. Great for off road.
#112 NEO-One 2 Star Brushless motor: 7.5 turns. Great for off road. Faster than 1 Star.
#111 NEO-One 3 Star Brushless motor: 6.5 turns. Great for touring car.
#113 NEO-One 4 Star Brushless motor: 5.5 turns. Great for touring car. Faster than 3 Star.
## Motor Comparison Chart

<table>
<thead>
<tr>
<th>Motor</th>
<th>Brush</th>
<th>Comm</th>
<th>Can</th>
<th>Winds</th>
<th>Adjustable Timing</th>
<th>Rebuildable</th>
<th>Bearings / Bushings</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hand-Wound Modified</strong></td>
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<tr>
<td>Pt Platinum</td>
<td>Standup #729</td>
<td>7.5mm</td>
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<tr>
<td>Ti Worlds Titanium</td>
<td>Laydown #766 Actron</td>
<td>9mm</td>
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<td>Ti Titanium</td>
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<tr>
<td>Kr Krypton</td>
<td>Laydown #766 Actron</td>
<td>9mm</td>
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<tr>
<td><strong>Machine-Wound Modified</strong></td>
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</tr>
<tr>
<td>Flash</td>
<td>Standup #729</td>
<td>7.5mm</td>
<td>1.4mm vented</td>
<td>Double</td>
<td>yes</td>
<td>yes</td>
<td>Bearings</td>
<td>Quad-mag FOURce-field - the latest C4 technology. Improved brush vibration damping system. Dual ball bearings. Heavy-duty solder tabs.</td>
</tr>
<tr>
<td>Quad-Mag 19</td>
<td>Laydown #766</td>
<td>9mm</td>
<td>1.4mm vented</td>
<td>19 x 1</td>
<td>fixed 24º</td>
<td>yes</td>
<td>Bearings</td>
<td>19-turn motor with Quad-mag FOURce-field. Improved brush vibration damping system. Dual ball bearings. Polarity-coded brush heatsinks.</td>
</tr>
<tr>
<td><strong>Spec</strong></td>
<td></td>
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</tr>
<tr>
<td>MVP</td>
<td>Laydown #766</td>
<td>7.5mm</td>
<td>1.4mm vented</td>
<td>27 x 1</td>
<td>fixed 24º</td>
<td>yes</td>
<td>Bushings</td>
<td>27-turn ROAR legal stock motor. Improved brush vibration damping system. Heavy-duty solder tabs.</td>
</tr>
</tbody>
</table>

*Used by Mike Blackstock to TQ the Indoor Championships AND Snowbird Nationals in 1:12 scale modified!*

*Used by Neil Cragg and Ryan Maifield in their B44s and T4 at the Cactus Classic!*

*Used by Craig Drescher in his TC4 to win the Reedy International Touring Car Race of Champions!*
**Choosing a Modified Motor**

Modified motors can be divided into several categories. Generally, you’ll first choose a modified motor based on whether you’ll drive on road or off road. On road motors generally need more RPMs, while off road uses more torque. Motors with larger commutators generate higher torque. The smaller commutators create more RPMs (revolutions per minute). Despite these qualifications, racers are freely mixing motor types in their racing for good effect.

**Platinum**
- 7.5mm comm
- Standup #729 brushes
- Bearings, 1.4mm vented can, adjustable timing, rebuildable.
- Quad-mag FOURce-field: the latest C4 technology!
- Improved brush vibration damping system.
- Dual ball bearings.
- Heavy-duty solder tabs.

**Titanium**
- 7.5mm comm
- Standup #729 brushes
- Bearings, 1.4mm vented can, adjustable timing, rebuildable.
- High-strength C4 magnets. High-torque armature design creates more intense magnetic field for quicker spool-up. Improved brush vibration damping system.
- Dual ball bearings.
- Heavy-duty solder tabs.

**Krypton**
- 9mm comm
- Laydown #766 brushes
- Bearings, 1.4mm vented can, adjustable timing, rebuildable.
- Quad-mag FOURce-field.
- Drill and epoxy balanced.
- 9mm commutator supplies more copper for better heat dissipation. Polarity-coded brush heatsinks.

**Ti Worlds**
- 9mm comm
- Laydown #766 brushes
- Bearings, 1.4mm vented can, adjustable timing, rebuildable.
- High-strength C4 magnets. High-torque armature design creates a more intense magnetic field for quicker spool-up. Improved brush vibration damping system.
- Dual ball bearings.
- Heavy-duty solder tabs.

**Choosing Your Turns and Winds**

Wires are turned around each arm of the armature. Probably the most important determining factors will be the number of the turns and winds of wire around the armature. Also important will be your choice of pinion gear and speed control. Let’s look at each in turn.

**Platinum**
- 200 12T single
- 201 10T single
- 202 12T single (Euro Wind™)
- 203 13T double
- 204 11T double
- 205 9T double
- 206 8T double
- 207 7T double
- 208 6T double
- 209 5T double
- 210 4T double
- 211 3T double
- 212 2T double
- 213 1T double
- 214 9T double
- 215 8T double
- 216 7T double
- 217 6T double
- 218 5T double
- 219 4T double
- 220 3T double
- 221 2T double
- 222 1T double
- 223 9T single
- 224 8T single
- 225 7T single
- 226 6T single
- 227 5T single
- 228 4T single
- 229 3T single
- 230 2T single
- 231 1T single
- 232 9T double
- 233 8T double
- 234 7T double
- 235 6T double
- 236 5T double
- 237 4T double
- 238 3T double
- 239 2T double
- 240 1T double
- 241 9T single
- 242 8T single
- 243 7T single
- 244 6T single
- 245 5T single
- 246 4T single
- 247 3T single
- 248 2T single
- 249 1T single

**Titanium**
- 336 12T single (Euro Wind™)
- 338 12T double (Euro Wind™)
- 376 14T double
- 377 13T double
- 378 12T double
- 379 11T double
- 380 10T double
- 381 9T double
- 382 8T double
- 383 7T double
- 384 6T double
- 385 5T double
- 386 4T double
- 387 3T double
- 388 2T double
- 389 1T double
- 390 9T single
- 391 8T single
- 392 7T single
- 393 6T single
- 394 5T single
- 395 4T single

**Krypton**
- 560 12T single
- 561 10T single
- 562 8T single
- 563 7T single
- 575 14T double
- 576 12T double
- 577 11T double
- 578 10T double
- 579 9T double
- 580 8T double
- 581 7T double
- 582 12T double (Euro Wind™)

*Euro Wind, for large tracks*

**Ti Worlds**
- 220 14T double
- 221 13T double
- 222 12T double
- 223 11T double
- 224 10T double
- 225 9T double
- 226 8T double
- 227 7T double
- 228 6T double
- 229 10T double (ROAR Touring Wind)

**Choosing a Modified Motor**

All modified motors are labeled according to their turns, such as Reedy Kr 10T. The 10T refers to ten turns, which is the number of times the wire was wound, or turned, around each armature arm.

Speed isn’t the only consideration, however. You need to consider the type of track. If it is small, or has many turns, you’ll never get up to top speed. You’ll always be scooting from one curve to the next, so for shorter tracks, get a motor with more turns.

## Turns

All modifieds are labeled according to their turns, such as Reedy Kr 10T. The 10T refers to ten turns, which is the number of times the wire was wound, or turned, around each armature arm.

Winds may refer to the number of strands of wire wound around the armature, double being two strands, triple being three, quad being four, and quint being five. In general, winds with fewer wires give the impression of kick-starting your wheels, while winds with more wires will bring you up to top end speed more slowly.

So if you have a very slick track (poor surface traction, like loose dirt or dusty surfaces), then winds like single and double may cause your wheels to spin in place.

Other winds, such as triple, quad, and quint, may give your car better traction and control.

## Winds

You’ll find the modified motors identified as 12 turn single, or 8 turn triple. Winds of double, triple, or quad refer to the number of strands of wire wound around the armature, double being two strands, triple being three, quad being four, and quint being five. In general, winds with fewer wires give the impression of kick-starting your wheels, while winds with more wires will bring you up to top end speed more slowly.

Truth be told, it’s nearly impossible for the inexperienced racer to detect the subtle differences between winds, so do not spend much time on this aspect.

Modified motors are more expensive than stock or spec class motors. That’s because the wires are laboriously wound by hand. For the budget-conscious, Reedy includes a machine-wound modified motor called the Flash. Though not as high in performance as hand-wound, it is still a notch above stock and spec motors.

For more about this subject, please see the article at [http://www.rc10.com/reedy](http://www.rc10.com/reedy)
### MACHINE-WOUND MODIFIED MOTOR

**Flash**
- 7.5mm comm
- Standup #729 brushes

**Spec 19**
- 9mm comm
- Laydown #766 brushes
- Bearings, 1.4mm vented can, fixed 24 degrees timing, rebuildable. 18-turn motor with Quad-mag FOURce-field. Improved brush vibration damping system. Dual ball bearings. Polarity-coded brush heatsinks.

**MVP**
- 7.5mm comm
- Laydown #766 brushes
- Bushings, 1.4mm vented can, fixed 24 degrees timing, rebuildable. 27-turn motor ROAR-legal stock motor. Improved brush vibration damping system. Heavy-duty solder tabs.

**Radon**
- 7.5mm comm
- Bushings, fixed endbell, non-rebuildable. Non-adjustable fixed timing. 17-turn motor. RPM range of 25,000-30,000. Included in B4 RS RTR, T4 RS RTR, TC4 RTR.

### SPEC MOTOR

**MVP 24 Stock Rebuildable**
- MVP 24 Stock Rebuildable.
- MVP 24 Stock Plus Rebuildable (with dyno printout).

**RTR MOTOR**
- Reedy Radon Motor

### STOCK MOTOR

**Flash**
- 7.5mm comm
- Standup #729 brushes

**Spec 19**
- 9mm comm
- Laydown #766 brushes
- Bearings, 1.4mm vented can, fixed 24 degrees timing, rebuildable. 18-turn motor with Quad-mag FOURce-field. Improved brush vibration damping system. Dual ball bearings. Polarity-coded brush heatsinks.

**MVP**
- 7.5mm comm
- Laydown #766 brushes
- Bushings, 1.4mm vented can, fixed 24 degrees timing, rebuildable. 27-turn motor ROAR-legal stock motor. Improved brush vibration damping system. Heavy-duty solder tabs.

**Radon**
- 7.5mm comm
- Bushings, fixed endbell, non-rebuildable. Non-adjustable fixed timing. 17-turn motor. RPM range of 25,000-30,000. Included in B4 RS RTR, T4 RS RTR, TC4 RTR.

### ARMATURES

**Ti or Pt**
- 12T single (Euro Wind*).
- 12T double (Euro Wind*).
- Standard Comm Armatures:
  - 12T double
  - 11T double
  - 10T double
  - 9T double
  - 12T single
  - 11T single
  - 10T single
  - 9T single
  - 8T single

**Kr or Ti Worlds**
- 12T single
- 10T single
- 7T single
- 12T double
- 11T double
- 10T double
- 9T double
- 8T double
- 7T double
- 12T single
- 11T single
- 10T single
- 9T single
- 8T single

**Hand Wound, Machine Wound**
- 19T Mid-Comm. Machine wound. Fits #513, 514 (9mm comm-mutators).

*Euro Wind, for large tracks*
In brushed motors, brushes conduct power to the commutator. The brushes are held in place by springs. By changing the springs' tension to increase or decrease the pressure of the brushes against the commutator, you can adjust the revolutions of the motor. Simply put, harder spring pressure increases friction and slows down the commutator.

In general, the less tension placed on the brush, the more RPM (top speed). The more tension, the more torque (faster acceleration).

Spring tension is measured by ounce rate. The lower ounce rate generates less pressure than a higher ounce rate. Choose a lower ounce rate for slightly more RPM, and a higher rate for more torque. However, harder pressure will hasten brush wear.

The springs give only a slight range of adjustment. If you want greater changes to RPM, for instance, you will still switch to an armature of fewer turns.
Ask any top-level racer about the between-rounds care of their motors ... it’s all about the maintenance of the motor commutator and the constant replacement of the motor’s brushes. In touring car racing, with the latest-generation high-voltage cells and low-wind motors, the heat and wear on the motor brushes is at an all-time high, frequently requiring replacement after every run.

With this in mind, Reedy introduces the new #777 “Plutonium” motor brushes. These high-tech brushes are made of an extraordinary new compound designed to stand up to the heat and stresses of top-level touring car racing. Reedy “Plutonium” brushes not only provide outstanding power, but they last several times longer than our standard competition brushes. In fact, top factory racers have reported running these brushes for over 30 runs* with no drop-off in performance!

By replacing your motor brushes much less often, you’ll spend more time on the track, and less time on the bench ... and save money in the long run, too! Whether you’re a serious racer who’s looking for an edge in performance, or a hobbyist just looking to spend less time and money on motor maintenance, the Reedy “Plutonium” brush is for you!

*Your actual usage could vary due to track conditions and maintenance.
POWER FOR 1:18 MINIS

VMX Concept R-14

Higher voltage means more power—and that’s just what you get with Reedy’s new VMX Concept battery pack. Featuring much higher voltage than stock battery packs, the 1400 mAh VMX Concept pack has the power to make your micro car rip up the road. Comes factory assembled complete with connector and fits directly into the Team Associated 1:18 series models.

Mini-MOD Modified Motors

Put some big-time horsepower into your 1:18 scale with the new Reedy Mini-Mod modified motors. The Mini-Mod motors feature precision ball bearings with replaceable brushes and springs. The Mini-Mod motors are available in a torque-based version, the SP19, and now in RPM-based 17T and 19T versions.

These are High Performance motors, and require maintenance to keep them running at their optimum performance. Designed for racing, but can be used in all types of environments. All the performance your 1:18 mini will ever need. Maintenance would include: cleaning or cutting the commutators, lubricating the bearings and replacing the brushes and springs.

X-Rated SHV

(Super-High Voltage) matched sport pack batteries use the latest generation of high output GP3700 Ni-MH cells that have been given the same cycling, matching, and voltage treating as Reedy’s championship-winning cells. The batteries are assembled in clear tubes so you can see the matching info right on the label of each cell. Don’t settle for “mystery” cells in your sport packs. Get Reedy’s X-Rated packs and see the power you’ve been missing!

Real Time SHV 3700

batteries give you the most accurate and useful information on how your batteries will perform during the race by giving you the cell’s average voltage during the first five minutes of discharge, in addition to the standard measurements of discharge rate, total capacity, charge time, internal resistance, and the discharge cutoff point, 0.90 volt per cell. Matched using the latest generation Gold Peak cells.

REEDY BATTERIES

617 Reedy VMX Concept R-14 6-cell racing pack

291, 292 Mini-MOD Modified Motors

671 Reedy RealTime SHV Matched Cells

701 Reedy X-Rated SHV GP3700 stick pack

288 Mini-MOD Brushes (qty 2)

289 Mini-MOD Springs (qty 2)

290° Reedy SP19 Stump Puller Modified Motor. (Torque based.)

291° Mini-MOD 17T Motor (RPM based)

292° Mini-MOD 19T Motor (RPM based)

617 VMX Concept R-14 6-cell racing pack

290 SP19 Stump Puller Motor

614 Ni-MH Receiver Battery Pack, flat. Recommended for the NTC3 and similar applications.

615 Ni-MH Receiver Battery Pack, hump. Recommended for the GT, GT2 and similar applications.


692 Reedy Black Label SHV (Super-High Voltage) GP3700 stick pack

701 Reedy X-Rated SHV GP3700 Stick Pack, With Tamiya plug, matched and zapped.

We do not recommend using Mini-MOD motors #291 or #292 on the 13MT or on vehicles that use monster truck-size tires. Due to the high RPM nature of these motors and the extra load of the large diameter tires, it is difficult to achieve the correct gearing, and damage to the motor will occur. We suggest the #290 SP19 Stump Puller motor, as it has more torque for this type of application.

* Uses #21136 motor screws.

288 Mini-MOD Brushes (qty 2)

289 Mini-MOD Springs (qty 2)

290° Reedy SP19 Stump Puller Modified Motor. (Torque based.)

291° Mini-MOD 17T Motor (RPM based)

292° Mini-MOD 19T Motor (RPM based)
MOTOR CANS AND ENDBELLS

| 441 | Kr Quad-Mag Can, no endbell, with bearing |
| 444 | Ti Modified Motor Can, no endbell, with bearing |
| 439 | Kr End Bell. Laydown brush style, big comm, with bearing |
| 442 | Modified Motor End Bell, Ti. For standard commutator. Standup brush style, with bearing |

Soldering Caps

Motor “noise” caused by the brush arcing within the motor can cause radio interference with some motor systems. Solder two #6520 noise suppressions capacitors to the motor head screw tab.

- If there is no motor head screw tab, solder the capacitors to the motor can.

OTHER PRODUCTS

| 440 | Motor Ball Bearings. Replacement modified motor ball bearings, 1/8” I.D. x 3/8” O.D. unflanged. (Not for 1:18 scale motors.) |
| 446 | Shim Kit. Precision shims for spacing armatures. Five each of .010”, .005”, & .003” sizes. Comes with instructions. Will also fit any 1/8” shaft or pin for removing excess end play. (Not for 1:18 scale motors.) |
| 745 | Schottky Diode, for motors & high frequency speed controls. Brakes run cooler and work more effectively. Improves battery regeneration. |
| 6520 | Capacitor, noise suppression, 0.10 uf. |

- 717 Reedy 8.5” x 5.5” (color added for clarity)
- 651 Reedy Battery Bars, AG/CU silver treated.
- SP412 Reedy Pit Towel. 43 3/4” x 23 1/4”.

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