

## Electrical

### Motor

The ESC feeds your radio transmitter commands to the motor, then the motor turns the transmission gears, which then turns the axles that drive your rear wheels. Motors come in many stock (fig. 1) and modified (fig. 2) varieties, giving you many tuning options.

#### How do I know which motor to use?

Use the following oversimplified tips.

- Match your motor to the correct application. Off road and on road vehicles require different motors. Generally, on road racing favors more rpm while off road favors higher torque. Reedy's Kr motor, fig. 2, was designed for modified racing. Our Reedy catalog takes the guesswork out of which motor you should buy. It's free for the asking.
- Choose the number of turns. "Turns" refers to the number of times the wire was wound around each armature arm. The fewer the turns, the higher the rpm (revolutions per minute), or top end speed (the highest speed attainable by that motor). So, if you wish the fastest motor, choose a motor with the fewest number of turns. Keep in mind that the fewer the turns, the greater the battery draw, which means lesser run time.
- Then choose the type of wind, fig. 3. "Winds" of "Single," "Double," "Triple" or "Quad" refers 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. The type of wind is for fine tuning your motor's power band. In general, the winds with fewer wires give the impression of quicker acceleration, while the winds with more wires will bring you up to top end speed more smoothly.

If you have a very slick track, then winds like single and double may cause your wheels to spin; other winds—triple, quad, quint—may give your car better traction. In addition, the less turns of wire, the less run time you will have, because the fewer wires will draw more power from your batteries.

The performance gains by changing the type of wind is subjective and may be noticed only by experienced racers with buggies that respond well.

#### On setup sheet

You write here which brand and type of motor you used. If you used a Reedy Kr 12 turn double wind, it can be written as "Kr 12x2."



fig. 1 Stock class requires a stock motor, such as Reedy's MVP motor.



fig. 2 Modified class allows modified motors, such as Reedy's Kr, Pt, and Ti modified motors.

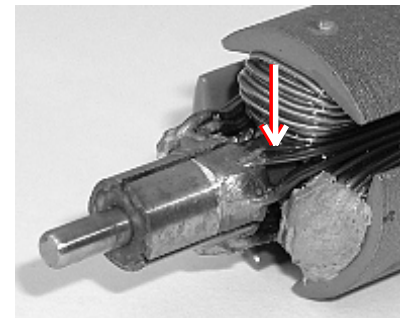


fig. 3 Arrow points to two wires, indicating that this is a "Double" wind.

#### Motor Differences

- A modified motor is unlimited turns, adjustable timing, and includes ball bearings.
- A stock motor has 27 turns of a single wire, has fixed 24 degrees of timing, and bushings.

#### Extra performance motor tips:

- Spray the motor commutator area with motor cleaner after every 2 to 3 runs while it is running. Over a 15 second span, spray the commutator several times for 2 to 3 seconds. Keep doing so until the runoff is clean.
- After the motor spray, apply a small amount of lightweight oil to each bushing for lubricating. Applying too much oil will pick up dirt and contaminate the commutator and brushes.
- Never overgear your motor (large pinion and/or small spur). Excess heat from overgearing can harm your motor.