

Electric Wheel Drives Itself

LEONARDTOWN, MD – Town Creek Industries has put a new spin on an old idea. Tuck motors inside wheels, and you've eliminated 600 pounds of transmission, differentials and drivetrain.

In Town Creek's electric wheel, batteries power two pancake motors, one driving a ring gear, the other driving an inner sun gear. Between these gears lie three planetary pinions, which transmit torque to the wheel through a shaft.

At idle the ring gear and sun gear counterrotate so that the pinions don't move.

To gain torque, one gear slows down until, at high speeds, the gears are running in the same direction. Advantage? Efficiency during both acceleration and cruise.

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