

## **NEWS RELEASE**

## FOR IMMEDIATE RELEASE

Inmotive Inc.

## Inmotive's New Shifting Mechanism Achieves Ultra-Fast Electric Vehicle Shift Speed

Latest Ingear<sup>™</sup> advancement increases performance, efficiencies

TORONTO, Ontario – January 4, 2021 – Inmotive, a Canadian-based automotive supplier, today announced that it has developed a new actuator technology to further increase the efficiency of vehicles that utilize its patented Ingear<sup>TM</sup> two-speed transmission, the world's most efficient two-speed transmission. The new actuator replaces the "Wagging Finger," which was used to move the Ingear's unique fully keyed sprocket segments, with a deflector. The new actuator system will improve the functionality, performance, reliability and manufacturability – all while reducing cost of the Ingear.

"In an industry with insatiable demand for energy savings without sacrificing performance or cost-competitiveness, the drive to uncover additional efficiency gains never ceases; instead, we continuously look for ways to enhance and evolve our technology," said Tony Wong, CTO and inventor of the Ingear. "Our team has done an outstanding job modelling, building and testing the new actuator in just four months from a concept we've been contemplating for a while."

Test results show that Inmotive's new actuator, trialled under realistic conditions for vehicle speeds, can now create a shift at over 100 kph (62 mph) in a typical passenger EV – a 40% improvement over its initial design. Maximum shift speeds may be further optimized to reach more than 130 kph (80 mph).

To provide faster shifting, the new concept reduces the moving mass of the actuator system's deflector (previously the "Wagging Finger") by over 60%, while also reducing the motion requirement of the mechanism by 60%. Faster shifting allows the Ingear to leverage all opportunities for improving vehicle efficiency and performance.

Inmotive has filed for patent protection internationally for the actuator innovation.

## **About Inmotive Inc.**

Inmotive is the Canadian based inventor of the Ingear, an ultra-efficient multi-speed powertrain technology for a wide range of applications. The Ingear extends electric vehicle range at very low additional cost and weight, while providing continuous torque during smooth shifts. Its highly reliable design also increases torque, acceleration, gradeability and top speed and is protected with 16 patents issued and 17 patents pending. Inmotive is headquartered in Toronto, Canada, with offices in India and China. More information is available at <a href="https://www.inmotive.com">www.inmotive.com</a>.



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