

Nidec Mobility Corporation

Released on November 14, 2024

## Nidec Mobility Develops the World's First E-clutch ECU for Two-wheelers

Nidec Mobility Corporation ("Nidec Mobility" or "we"), a Nidec Group company, today announced that it has developed the world-first electric clutch ECU for two-wheel vehicles that enables the rider to shift gears without using the clutch lever when the vehicle's drive force changes as it starts moving, changes speed, stops, etc.



Nidec Mobility's electric clutch ECU for two-wheel vehicles

Unlike four-wheel vehicles, the majority of mid-size and larger two-wheelers are manualshifted, and thus require the rider to operate the clutch and change gears as they start moving, change speed, stop, etc. The latest e-clutch ECU that Nidec Mobility has developed controls a two-wheel vehicle's clutch automatically, and the rider can shift between the manual and automatic modes optionally.

In developing this electric clutch ECU, Nidec Mobility adopted a "model base development" method, and was able to deliver its prototypes in five months – a process that usually takes approximately a year. This development method creates and simulates models for system-building controls and target controls to create designs for them while verifying those controls. This method enables its users to perform verification during a designing process and removes the need for reworking in it, and thus reduces man-hours significantly and improves products' quality.

Having been mass-producing a variety of control units for both four- and two-wheel vehicles, Nidec Mobility enjoys a high reputation for its technological capability. We will stay committed to evolving automotive electronic control technology to lead the market, and developing products that contribute to safety, security, and the environment, to achieve the most ideal combination between people and vehicles in the car-centric society.

For more information on the above product, please contact Nidec Mobility Corporation's Corporate Management Department at <u>NMOJ-ML-PR@nidec.com</u> (Tel.: +81-568-78-6160). Thank you.