

**Venture business develops one of the smallest four-seat ultra-compact EVs in the world**  
**"FOMM Concept One," with FF in-wheel motors**

**To be exhibited at the Bangkok International Motor Show in March; production and sales planned in Thailand**

FOMM Corporation (headquarters: Kawasaki, Kanagawa, Japan; representative director: Hideo Tsurumaki) has been working since 2013 with Daido Kogyo Co., Ltd. and NGK Spark Plug Co., Ltd. in ultra-compact electric vehicle development. Now, FOMM has developed one of the smallest four-seat ultra-compact EVs in the world, the FOMM Concept One, with high-efficiency in-wheel motors. It is to be exhibited in March 2014 at the Bangkok International Motor Show. FOMM is currently advancing negotiations to manufacture and sell it in Thailand, aiming for release in October 2015.

**Representation of the actual FOMM Concept One**



Design: Kikuo Emoto, CEO, Minimo Ltd.

The FOMM Concept One, developed under the concept of a "capsule EV," is one of the smallest four-seat EVs in the world. Cars are essential to our lives, but not everyone can easily afford them. FOMM's goal is to utilize the features of electric vehicles to make an accessible ultra-compact EV ideally suited for short-distance travel. It will not be just an ordinary electric vehicle, but a vehicle that will offer new value and revolutionize people's lives. This has been the focus of the planning and development of the FOMM Concept One.

Especially in countries such as Thailand and Indonesia, it is said that most people take out loans to buy a car. It is like buying a house in Japan. FOMM wishes to prevent situations such as one in which the car one steered oneself to purchase is caught in a flood and ruined.

Hereafter, FOMM aims to use its electric vehicle development as a springboard to create motorcycles and new vehicle forms and to realize the ultimate vehicle for a distanceless society, the "magic carpet."

## Product features

### - One of the smallest four-seat ultra-compact EVs in the world

Length 2495 mm, width 1295 mm, height 1550 mm, vehicle weight 460 kg. Designed to allow boarding and disembarking with a minimum of space by using sliding doors on both sides. A four-seater structured in a size comparable to that of a typical two-seat motorized mini-car (whose dimensions might be length 2395 mm, width 1095 mm, height 1500 mm).

### - FF in-wheel motors\*

Direct drive promises high driving responsiveness with high efficiency. FF (front motor, front drive) layout makes it easy to recover regeneration energy, allowing a gas equivalent efficiency of 96.7 km/L.

Furthermore, the use of an in-wheel motor secures more space. Steering and electrical parts fit where the engine would usually be, helping to make the vehicle so small.

\*Electric motor contained in a wheel. Good power transmission efficiency and responsiveness. Installing a motor in each wheel allows each wheel to be controlled independently. Moreover, loss from gears, drive shafts, etc. is eliminated, making it possible to drive with high efficiency and responsiveness. As in-wheel motors also improve the freedom of body design and allow broader cabin space, they hold great promise for drive systems for EVs and fuel cell vehicles.

### - New handling system

The FOMM Concept One is controlled not with the feet, but entirely with the hands. Using a handlebar for control like a motorcycle, it eliminates the accelerator pedal and thus is able to move the driver seat forward as far as possible. This also prevents the danger of stepping on the wrong pedal.

### - Portable batteries and home power

Portable batteries are used to solve the problem of mismatch between battery price and performance which has been a major barrier to the spread of EVs. Up to three sets of two batteries in a series configuration can be installed. This allows a range of approximately 100 km (in urban driving mode). The batteries are consumed one set at a time, making them convenient to replace. They can even be used for emergency power at home. Besides replacing the portable batteries, the FOMM Concept One can also be recharged from a home electrical outlet just like an ordinary EV.

### - Simple thermal storage cooler (optional)

It is said that using air conditioning shortens the range of EVs, but the FOMM Concept One can be equipped with a thermal storage cooler. The charging power is used to cool a cooling medium in a vacuum flask, so that cold air can be released from the cooling medium directly onto the driver while driving.

### - Equipped with water resistance features

The FOMM Concept One is fully equipped with water resistance features to prevent damage in the floods that often occur in Southeast Asia. Even if caught in a flood, a water-jet generator allows vehicle movement on the water surface (Note 2).

Note 1: Maintenance work is required after vehicle was caught up in floods or water damage.

Note 2: This is an emergency function. This is not an amphibious vehicle. Movement capability on water is limited.

## Product data

Product name: FOMM Concept One

Body weight: 460 kg (when empty)

Body size: L 2495 mm × W 1295 mm × H 1550 mm

Passenger capacity: 4

Max. output: 5 kW × 2

Max. torque: 280 Nm × 2 (FF in-wheel motors)

\* All values are development targets

## Future developments

The FOMM Concept One will be exhibited at the Bangkok International Motor Show, starting in late March in Thailand. Afterward, a business model specializing in ultra-compact mobility will be utilized. Working with Daido Kogyo Co., Ltd. and NGK Spark Plug Co., Ltd., FOMM plans to push forward vehicle development while producing prototype vehicles and show cars, while establishing a local corporation or branch in Thailand.

Contracting vehicle mass production to a local company is under consideration. In such a business model, FOMM would

license the technology it has developed and collect royalties. Vehicle sales and marketing also are under negotiation with local companies.

### **Sales targets and schedule**

2014: Produce show car for Bangkok International Motor Show  
Mar 2014: Exhibit at Bangkok International Motor Show  
Apr-Jun 2014: Procure capital increase and funds from third parties  
Sep 2015: Start mass production in Thailand  
Oct 2015: Start sales in Thailand

\*This schedule is subject to change.

- **Target retail price:** Under 1 million yen
- **Target sales volume in first year:** 5000 units

### **Corporate profile**

Company Name	FOMM Corporation
Address	Kohryo Bldg. 4th Floor, 1-15-5 Kitakase, Saiwai-ku, Kawasaki-shi, Kanagawa-ken, 212-0057, Japan
TEL	044-200-4020
FAX	044-200-4021
URL	<a href="http://www.fomm.co.jp">http://www.fomm.co.jp</a>
E-mail	<a href="mailto:info@fomm.co.jp">info@fomm.co.jp</a>
Founded	February 2013
Capital	101 million 162 thousand yen (165 million 24 thousand yen including capital reserves)
President	Hideo Tsurumaki
Profile	Hideo Tsurumaki joined Suzuki Motor Corporation in April 1982 assisting in multi-faceted developmental work ranging from design of scooter engines to motocross bike frames. In April 1997 he successfully developed the “Coms” single-seater electric vehicle at Araco Corporation and he also participated in development of the “i-unit” and “i-real” vehicles. He later on worked on planning and development of a new model “Coms” for Toyota Auto Body Co., Ltd. In October 2012 he worked on planning for micro electric vehicles for the Southeast Asian market at the Sim-Drive Corporation. In February 2013, he established the FOMM Company with the aim of creating micro electric vehicles and currently serves as company president.
Business	Compact electric vehicle development Part development (ultra-compact EV high-performance in-wheel motor development) Technical consulting regarding ultra-compact vehicles Research and development (development of functions to address regional needs)

**For media inquiries regarding this press release**

Tel: 044-200-4020; fax: 044-200-4021; email: [info@fomm.co.jp](mailto:info@fomm.co.jp)