

News Release

Anology and guality flowing together One-piece Cycle In one perfect motion. One-piece Cycle TOPY INDUSTRIES, LIMITED Art Village Osaki Central Tower 1-2-2,Osaki,Shinagawa-ku,Tokyo

http://www.topy.co.jp

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Company Name: TOPY INDUSTRIES, LIMITED Representative: President and CEO, Yasuo Fujii (Code: 7231 Tokyo, Osaka and Nagoya Stock Exchange; first section)

"Free-Rent of Search Robot to Tokyo Electricity Power Co. to Aid in the Cleanup Effort at Fukushima Daiichi Nuclear Power Plant

-New Development of Compact Size Mobile Module that can Navigate Stairways"

Topy Industries Ltd. (head office: Shinagawa, Tokyo, President and CEO: Yasuo Fujii, hereafter "Topy"), has developed and made free-rent to Tokyo Electricity Power Co., a new remote sensing search robot, the Topy "Survey Runner", to aid in the cleanup effort at Fukushima Daiichi Nuclear Power Plant.

Topy developed and controls crawler robot technology for highly water-proof mobile robots that can ascend and descend smoothly inside buildings, and has past experience in delivery of search robots for Hyper Rescue teams. The special characteristics of the newly developed "Survey Runner" are as follows:

① <u>Downsized Mobile Module</u>

Topy has restructured the crawler travel motion system enabling significant size reduction of the mobile module for ascending and descending stairways.

2 High Ascending and Descending Performance

The stairs inside the nuclear reactor building are steep in angle and are expected to be wet and slippery. The "Survey Runner" can easily ascend and descend stairways that are wet or as steep as 45 degrees, or as narrow as 70 cm.

③ <u>Multiple Communication Methods</u>

Remote control of the robot by wireless communication is difficult due to thick walls and other interference inside the reactor building. The "Survey Runner" has a tethered communication method (400 m long optical fiber cable) equipped with an automatic wind-up and extension mechanism which enables remote control from outside the reactor building.

(4) <u>Transmission Relay Function for Other Robots</u>

The "Survey Runner" is able to act as a signal relay post to transmit wireless communications for other robots working in the nuclear reactor building with transmission problems.

5 Enhanced Sensor Arrays and Recording Function

Remote Sensing functions have been enhanced to enable live radiation dose measurement and video recordings, and database preparation.



Photo: Survey Runner

Topy has been developing crawler modules for mobile robots since 2003 together with Professor Shigeo Hirose of Tokyo Institute of Technology Department of Mechanical and Aerospace Engineering known for its research and development in rescue robots. Topy will continue to contribute in the efforts to make practical use of service robots under various situations by responding to users needs of undercarriage parts for mobile robots that require high mobility, advanced remote sensing and reliability in extreme environments. Length: 20" (505mm) with flippers stowed 30" (755mm) with flippers extended Width: 20" (510mm) Height: 32.7"(830mm), Weight: 100lb (45kg)

