

Technical Support Agreement Entered with Tsubame Industries Co., Ltd.

To supply RV™ precision reduction gear units for their cockpitted robot, ARCHAX

Nabtesco Corporation (Headquarters: Chiyoda-ku, Tokyo; President: Kazumasa Kimura) is pleased to announce that it has signed a technical support agreement with Tsubame Industries Co., Ltd. (Hereinafter, Tsubame Industries; President: Ryo Yoshida). Following this agreement, we will be supplying, as technical supporter of Tsubame Industries, RV™ precision reduction gear units—our mainline product—for the cockpitted “ARCHAX” robot they have developed, and also provide further development support going forward.

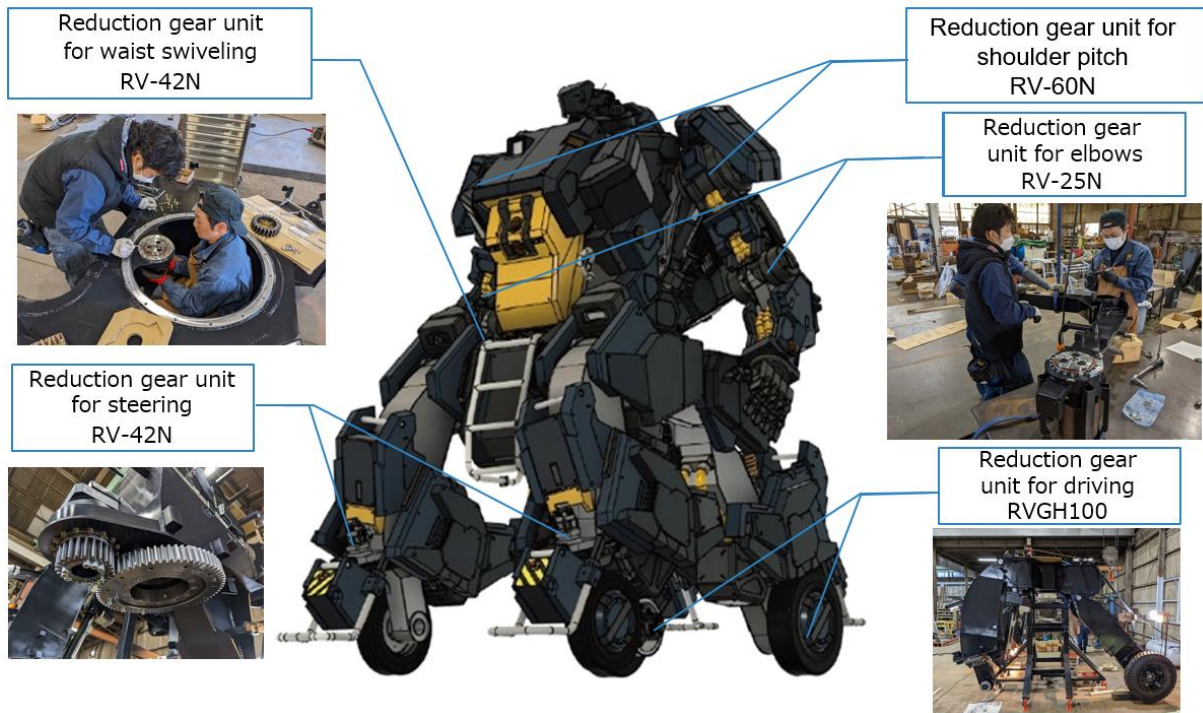
[The ARCHAX Project]

Developed by Tsubame Industries, a company that aims to create "robots that look like the ones that we see in sci-fi movies," ARCHAX is a large cockpitted robot that a person can ride and control. By creating an entirely new market for cockpitted robots, the company will be targeting wealthy enthusiasts as its main customers. Going forward, the company plans start taking orders from domestic and international customers, with a limited number of units to be sold in advance starting September 2023. The initial lot will be limited to 5 units for sale in Japan.

[Technical support by Nabtesco]

Our RV™ precision reduction gear units, which constitute our main business, are a device that converts the rotation of a motor to torque, reducing vibration in the frame and enabling precise control. It is mainly used in joint applications for medium and large industrial robots that handle large payloads. To ensure smooth and accurate operation, one ARCHAX robot is equipped with nine RV™ precision reduction gear units, including those for waist swiveling and driving.

Through our technical support for the ARCHAX project, we will further improve the motion control technology we have cultivated to date, while also providing children with opportunities to develop their interest in manufacturing, and extending these efforts to the development of the next generation of engineers.



["ARCHAX" Overview]

Packed with elements from robotics, animation/games, heavy machinery, and automobiles—fields that Japan is world-renowned for—ARCHAX was created to convey the dream experience that many people around the world have longed to experience, that is, to get on board and pilot a large robot that looks like something out of science fiction.

Name of product	Cockpitted robot, "ARCHAX"
Overall height	4.5 meters
Weight	3.5 tons
Modal transformation	Robot mode/vehicle mode
Maximum speed	10km/h (in vehicle mode)
Drive	Front wheel steering, rear wheel drive
Power	Battery-powered(DC300V)
Degrees of joint movement	26
Operation methods	Onboard and remote
Operating controls	Two joysticks, two pedals, and a touch panel
Display system	Four displays, and nine cameras (display switching)
Frame	Steel (SS400 series), and aluminum alloy
Exterior	FRP, and 3D printed (ASA)



[About Tsubame Industries Co., Ltd.] <https://tsubame-hi.com/en/>

Based on the philosophy of "transforming the world of science fiction into science reality," Tsubame Industries Co., Ltd. was established in August 2021 to provide the world with the experience that many people have longed for: To actually get on board and operate a large robot like the ones they see in science fiction.

[About Nabtesco Corporation] <https://www.nabtesco.com/en/>

Nabtesco was established through the integration of Teijin Seiki Co., Ltd. and NABCO Ltd. in 2003. It is a manufacturer of machine components, and with its unique motion control technology, supports the automation of manufacturing sites as well as safe, secure and comfortable land, sea and air transportation. For precision reduction gears used in the joints of medium- to large-sized industrial robots, Nabtesco secure a world market share of 60%, and for automatic doors for buildings, and its domestic market share has reached about 55%.

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