

The world's first practical learning robot

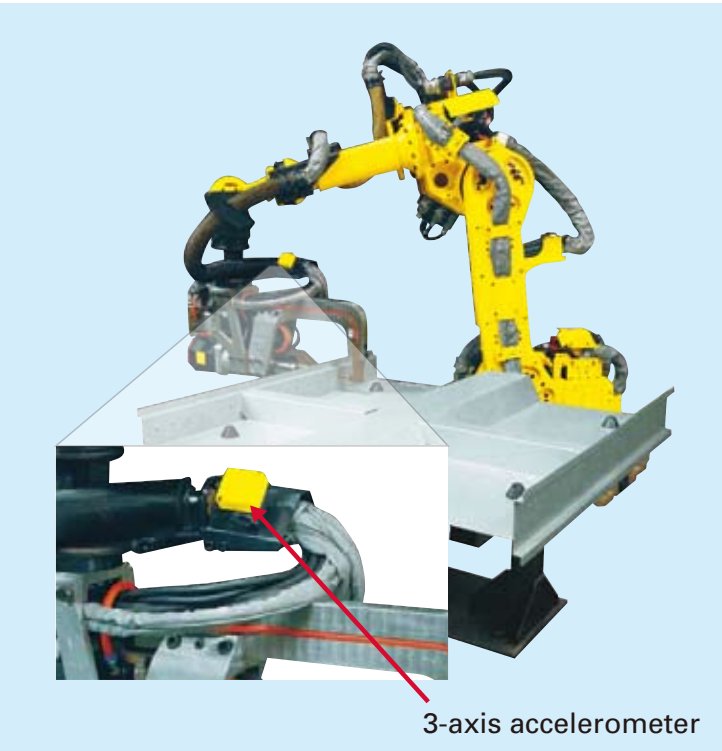
FANUC Learning Robot

FEATURES

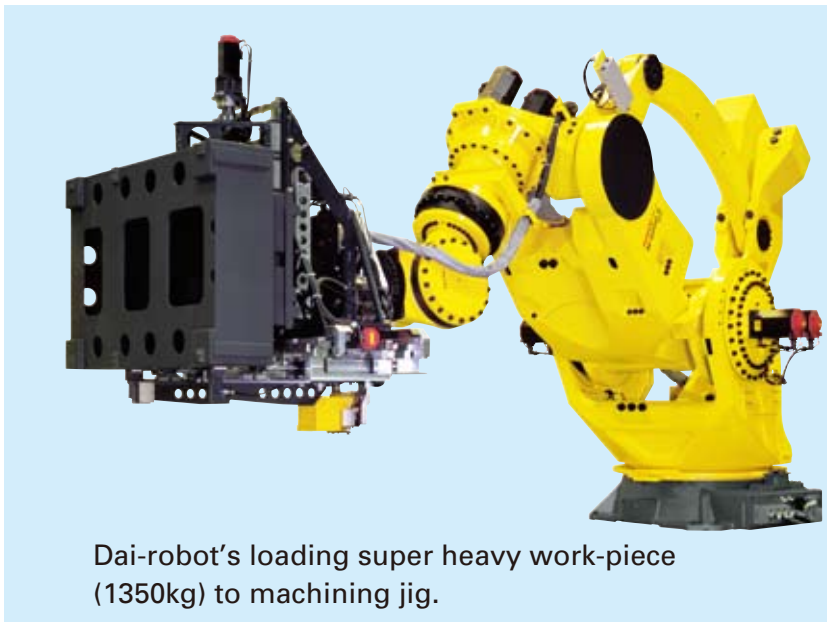
- Learning robot realizes smooth and high speed motion by the suppression of the robot vibration.
- Learning robot enhances the productivity of a unit robot and can reduce required robot quantity for spot welding line and robot system cost.
- Learning robot enhances the performance of handling a heavy jig and a heavy work-piece, which causes the vibration of a robot. It suppress the vibration from the jig and the work-piece and can increase the robot motion speed for the handling.
- Learning robot can automatically speed up robot motion. The procedure for the speeding up does not require special measurement system and operation. Only thing needed for it is to mount accelerometer on the part of a robot desired to be controlled and execute the target robot program repeatedly.
- Learning robot can maintain high speed motion against small touch-up done after learning is completed. Even if large touch-up is done in a robot program, learning robot can maintain high speed motion except in that touch-up part.



Learning Robot application example



High speed spot welding with light servo-gun



Dai-robot's loading super heavy work-piece (1350kg) to machining jig.

Handling of heavy load by suppressing the vibration

Learning Robot Effect

Learning robot can speed up robot motion, reduce required robot quantity and number of spot welding processes. As a result, learning robots realize the higher performance in smaller space.

Existing car body spot welding line example

7 processes/robot 30 units



Learning robot car body spot welding line example

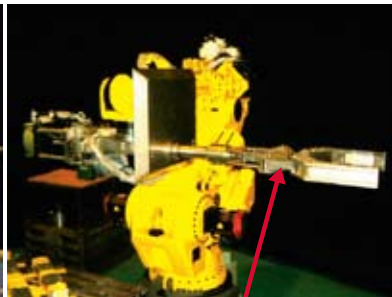
5 processes/robot 26 units



Reduction of process number by learning robot.
(7 process to 5 process)



Heavy work-piece for Handling



Off-set large hand

Handling of heavy work-piece and with off-set hand causes the robot vibration. Therefore, robot motion speed needs to be reduced for avoiding the vibration, which results in the productivity degradation.

However, learning robot can maintain the motion speed with vibration suppression. It contributes to the productivity improvement.

FANUC CORPORATION

• Headquarters Oshino-mura, Yamanashi 401-0597, Japan Phone: 81-555-84-5555 Fax: 81-555-84-5512 <http://www.fanuc.co.jp>

• Overseas Affiliated Companies

FANUC Robotics America, Inc.
FANUC Robotics Europe S.A.
KOREA FANUC CORPORATION
FANUC INDIA PRIVATE LIMITED
SHANGHAI-FANUC Robotics CO., LTD.
FANUC THAI LIMITED
TAIWAN FANUC ROBOTICS LTD.
FANUC MECHATRONICS (MALAYSIA) SDN. BHD.

3900 West Hamlin Road, Rochester Hills, MI 48309-3253, U.S.A.
Zone Industrielle, L-6468 Echternach, Grand-Duché de Luxembourg
39 Ungnam-dong, Seongsan-gu, Changwon Kyoungham, 641-290 Korea
41-A, Electronics City, KEONICS, Bangalore, 560 100, India
No. 1500 Fulian Road, Baoshan Area, Shanghai, China
1301 Pattanakarn Road, Kwaeng Suanluang, Khet Suanluang, Bangkok 10250 Thailand
No.4, 17th Road, Taichung Industrial Park, Taichung, Taiwan
No.32, Jalan Pengacara U1/48, Temasya Industrial Park, Section U1, Glenmarie, 40150 Shah Alam, Selangor Darul Ehsan, Malaysia
No.1 Teban Gardens Crescent, Singapore 608919, Singapore
10 Healey Circuit, Huntingwood, NSW 2148, Australia
17 Loper Ave. Airport Industrial Ests, Spartan Ext.2 P.O.Box 219, Isand 1600, Republic of South Africa

Phone: 1-248-377-7000 Fax: 1-248-377-7477
Phone: 352-727777-1 Fax: 352-727777-403
Phone: 82-55-278-1200 Fax: 82-55-264-2672
Phone: 91-80-2852-0057 Fax: 91-80-2852-0051
Phone: 86-21-5032-7700 Fax: 86-21-5032-7711
Phone: 66-2-714-6111 Fax: 66-2-714-6120
Phone: 886-4-2359-2827 Fax: 886-4-2359-6040

Phone: 60-3-7628-0110 Fax: 60-3-7628-0220
Phone: 65-6567-8566 Fax: 65-6566-5937
Phone: 61-2-8822-4600 Fax: 61-2-8822-4666
Phone: 27-11-392-3610 Fax: 27-11-392-3615

• All specifications are subject to change without notice.
• No part of this catalog may be reproduced in any form.
• The products in this catalog are controlled based on Japan's "Foreign Exchange and Foreign Trade Law". The export from Japan may be subject to an export license by the government of Japan. Further, re-export to another country may be subject to the license of the government of the country from where the product is re-exported. Furthermore, the product may also be controlled by re-export regulations of the United States government. Should you wish to export or re-export these products, please contact FANUC for advice.