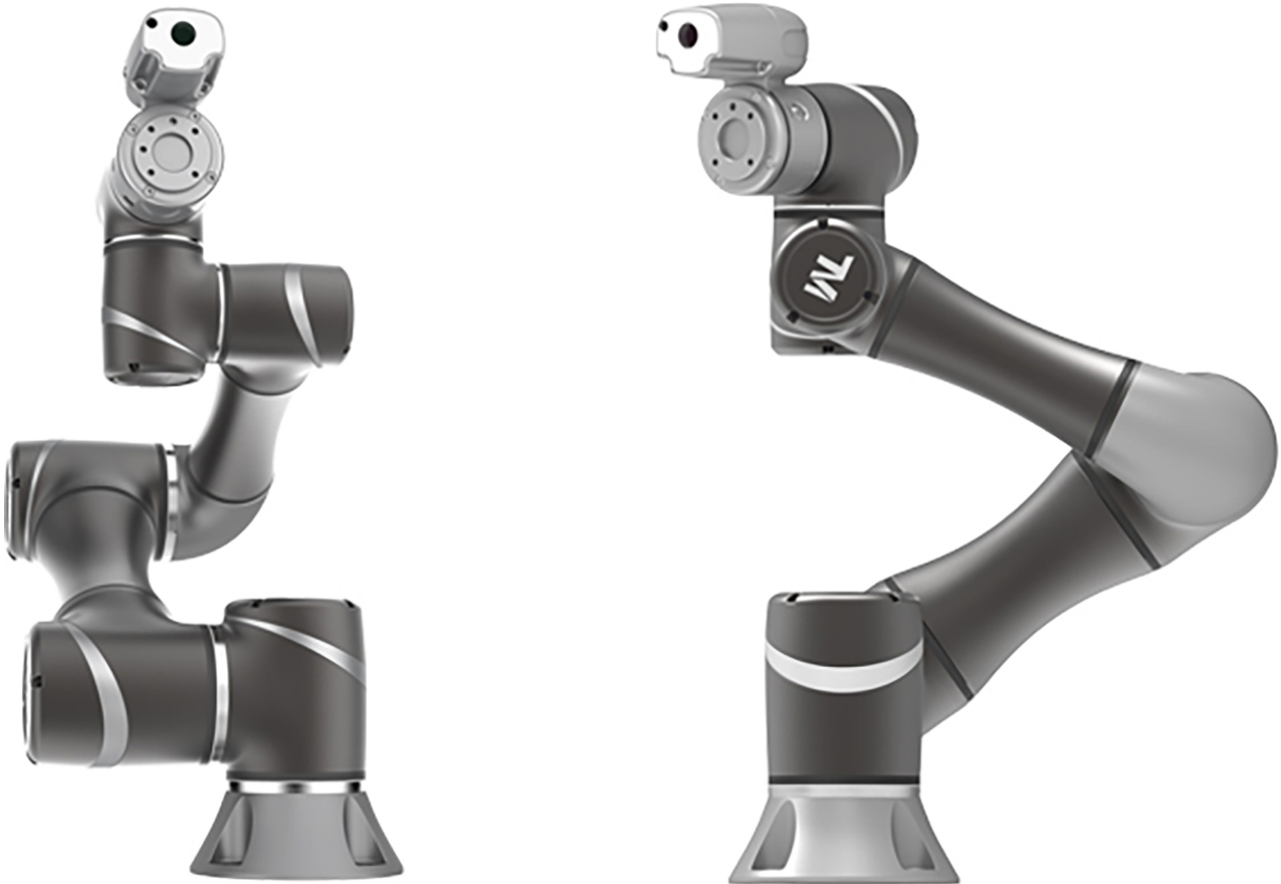# TM5-700 AI, TM 6-axis robot incl. controller, reach 700mm, payload 6kg

The TM5-700 AI robot combines the functions of the hand, the eye and the brain in one system, modelled on the human body. The integrated camera system enables the TM5-700 AI robot to recognize reference point markings, among other things, and to use this information to adjust its position independently and automatically. The intuitive graphical user interface and the possibility of a manual teach-in allow an individual adaptation to the application process as well as a quick and easy operation of the industrial robot - just as easy as using a mobile phone.

All collaborative robots are equipped with an integrated vision system that provides the cobots with the ability to perceive their environment, greatly enhancing the cobots' capabilities. The robot's ability to "see" and interpret visual data into command instructions is one of the cobot's distinguishing features. It is a crucial factor for the precise execution of tasks in dynamically changing work environments, for smoother operations and more

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efficient automation processes.

Future-proof! Your Cobot with AI.
The main benefits of AI Vision are an automated optical inspection (AOI), Quality assurance & consistency, an increase in production efficiency and a reduction in operating costs. AI-powered cobots recognize the presence and orientation of their environment and parts to perform visual inspections and dynamic pick-and-place tasks. Effortlessly apply AI to the production line and increase productivity, decrease costs, and shorten cycle times. AI vision can also read results from machines or test equipment and make appropriate decisions accordingly. Besides improving automation processes, an AI-driven cobot can track, analyze, and integrate data during production to prevent defects and improve product quality. Easily enhance your factory automation with a complete set of AI technology.
• Max. Speed: 1.1 m/s (4m/s)
• Joint rotation: +/- 270° | +/- 180°
• Speed: 180°/s | 225°/s
• Repeatability: +/- 0,05mm
• Degrees of freedom: 6 rotation axes
• Communication: 3x COM, 1xHDMI, 1xEtherCAT, 2xGigE, 1xLAN, 4xUSB2.0, 2xUSB3.0
• Camera: 1.2 M / 5 M pixel color | fully integrated vision system with illumination
• I/O power supply: 24 V, 1.5 A
• IP class: IP54 (robot arm), IP32 (control unit)
• Clean room class: ISO Class 3
• Temperature range: 0 - 50° C
• Software: FMflow, TMFlow Editor and AOI
• TMFlow AI functions (identify, measure and OCR)
[https://www.youtube.com/watch?v=lkA2WSzAQI8&t=12s|You can find out more information here]
[https://www.youtube.com/watch?v=eEmN3xaBcm8|Information on screw application]

Robot series	AI series
item number	**WL50780**
model	TM5-700
manufacturer	TECHMAN
scope of supply	• 6-axis robot • Control unit • Connection cable • Control unit • IO cable (HW3.2)
order unit	1 piece
content unit	1 piece

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self-weight	22.1 kg
power	220 W
output (to)	220 W
range	700 mm
camera resolution	1.2M/5M pixel, colour camera
load capacity	6 kg
interfaces	I/O interface: Digital in / Digital out / Analog in / Analog out Communication & Connections: RS232, Ethernet, Modbus TCP/RTU, PROFINET (optional), EtherNet/IP (optional)

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