

# NexBot Robotics TBL021-004 Collaborative Robot Arm 10kg Payload

NexBot Robotics

SKU: NXB-ROB-TBL021-004 | Category: Robots > Collaborative Robots > Tabletop Cobots (≤5kg)

## Overview

The NexBot Robotics TBL021-004 is a versatile 6-axis collaborative robot (cobot) designed for automating complex tasks in space-constrained environments where humans and robots work in close proximity. This robot arm combines a substantial 10 kg payload capacity with a compact footprint, making it suitable for a wide range of tabletop and bench-mounted applications without requiring significant facility modifications. Key to its performance is a sophisticated design that delivers exceptional precision. With a position repeatability of  $\pm 0.02$  mm, the TBL021-004 ensures consistent and accurate execution of tasks, which is critical for applications such as electronics assembly, intricate material handling, and quality inspection. The robot's 850 mm reach provides a generous work envelope, allowing it to service multiple stations or handle larger workpieces within its operational area. This combination of reach and precision enables higher productivity and improved product quality. Designed for safe human-robot collaboration, this cobot features advanced, built-in force-sensing technology in all its joints. This allows the robot to detect unexpected contact and safely stop its motion, minimizing the need for extensive physical guarding and enabling more fluid interaction between operators and automation. The intuitive programming interface and lead-through teaching capabilities allow for rapid deployment and easy task programming, even for users with limited robotics experience. The TBL021-004 is an adaptable automation solution for machine tending, pick-and-place operations, packaging, and light assembly, helping to increase operational efficiency and flexibility.

## Technical Specifications

Parameter	Value	Unit
Weight	28.5	kg
Material	Anodized Aluminum and ABS Plastic	
Voltage	48VDC	
IP Rating	IP54	
Country of Origin	US	
Protocol	EtherCAT	
Reach	850 mm	

Parameter	Value	Unit
Payload	10 kg	
Axes	6	
Repeatability	±0.02 mm	

**Safety Notice:** This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).