



# ABB Unveils Ultra Accuracy Feature for GoFa™ Collaborative Robots:



## Game-Changer in Precision Automation

The industrial automation landscape is undergoing a transformation with the latest advancements in robotics technology. ABB, a global leader in automation and robotics, has once again set a new industry benchmark with the introduction of its Ultra Accuracy feature for the GoFa™ collaborative robot (cobot) family. This revolutionary enhancement offers a tenfold improvement in path accuracy, unlocking new potential for precision-dependent applications such as electronics assembly, laser welding, and 3D printing. With this development, ABB continues to reinforce its position as an innovation leader, ensuring that businesses can maximize productivity while maintaining unparalleled precision.

### The GoFa™ Cobot: A Brief Overview

ABB's GoFa™ cobots have already established themselves as versatile and efficient automation solutions, enabling safe and effective collaboration between robots and human workers. Unlike traditional industrial robots that operate in isolated environments, GoFa™ cobots are designed to work alongside human operators, performing delicate tasks with minimal supervision. Their intuitive programming, flexible deployment, and advanced safety features make them ideal for a variety of industries, including automotive, healthcare, electronics, and manufacturing. The new Ultra Accuracy feature enhances this existing platform, addressing the growing demand for high-precision automation in industries that require intricate and repetitive processes.



### Breaking Down the Ultra Accuracy Feature

The Ultra Accuracy enhancement is designed to provide manufacturers with an unprecedented level of precision, ensuring that each movement and action is executed with micrometer accuracy. Below are some key aspects of this groundbreaking feature:

#### 1. Superior Path Accuracy

- The Ultra Accuracy feature improves path accuracy by over ten times compared to other collaborative robots in the market. It ensures smooth and consistent motion, significantly reducing deviations from the intended trajectory.
- This improvement enables applications that require ultra-fine precision, such as placing electronic components, intricate laser cutting, and micro-welding.

#### 2. Advanced Motion Control Algorithms

- ABB has integrated state-of-the-art motion control algorithms that enhance trajectory planning and execution.
- These algorithms continuously monitor and adjust the robot's movements in real time, compensating for minor deviations and external disturbances.
- The result is a seamless and fluid motion that maintains accuracy even at high speeds.

#### 3. Optimized Sensor Integration

- ABB's precision sensor technology allows the GoFa™ cobots to respond to the slightest changes in position and force.
- These sensors help in detecting and correcting positional inaccuracies, making the cobots capable of performing micro-assembly tasks with surgical precision.

#### 4. Adaptive Learning and AI-driven Enhancements

- ABB has incorporated machine learning capabilities to enable the GoFa™ cobots to improve their precision over time.
- Through AI-driven analytics, the robots can learn from past performance, continuously refining their movements for enhanced efficiency and reliability.

## Applications and Industry Impact

The introduction of the Ultra Accuracy feature has far-reaching implications for multiple industries, particularly in sectors where precision is critical. Below are some key applications:

#### 1. Electronics Manufacturing

The miniaturization of electronics requires extreme precision in chip placement, soldering, and wire bonding. The GoFa™ cobots with Ultra Accuracy can assemble circuit boards, place microchips, and handle delicate electronic components with minimal error margins.

#### 2. Laser Welding and Cutting

Precision welding is crucial in industries such as aerospace and medical device manufacturing. The enhanced path accuracy ensures consistent and flawless welds, reducing material wastage and increasing durability.

#### 3. 3D Printing and Additive Manufacturing

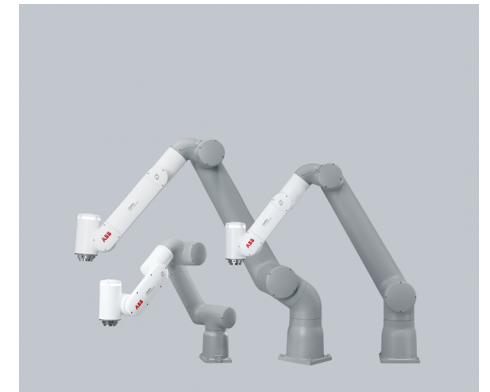
The feature allows consistent layering and deposition of materials in additive manufacturing. This is particularly beneficial for medical implants, prototyping, and high-performance engineering applications where accuracy dictates product integrity.

#### 4. Medical and Pharmaceutical Industry

The Ultra Accuracy feature can enhance the precision of robots used in surgical instrument assembly, lab automation, and pharmaceutical packaging. It ensures that sensitive medical devices are manufactured with high accuracy, improving their reliability and performance.

### ABB's Commitment to Future-Ready Automation

ABB has always been at the forefront of robotic innovation, and the Ultra Accuracy feature for GoFa™ is yet another testament to its commitment to advancing automation technology. With AI-driven learning, enhanced motion control, and sensor integration, this latest development aligns with the broader industry shift towards Industry 4.0. Furthermore, ABB is actively working on integrating cloud-based monitoring and predictive maintenance solutions into its robotic ecosystem, ensuring that businesses can achieve maximum uptime and efficiency.

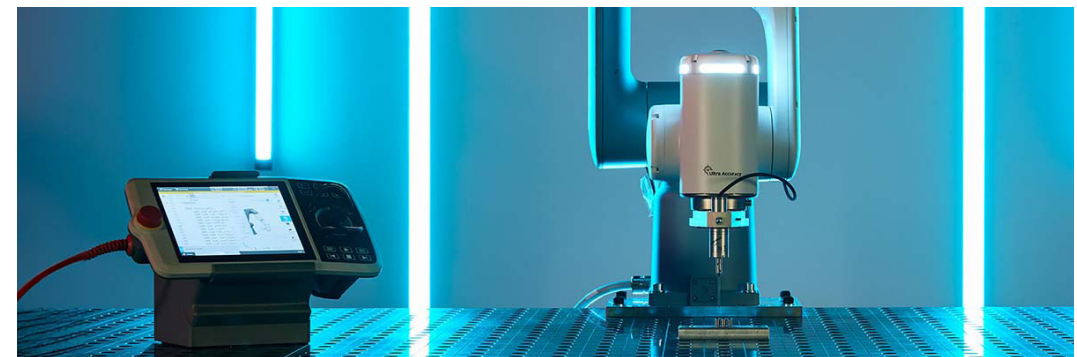


### Conclusion: The Future of High-Precision Robotics

The Ultra Accuracy feature for GoFa™ cobots marks a significant leap in precision automation, enabling manufacturers to achieve levels of accuracy previously unattainable with traditional cobots. As industries continue to adopt smart manufacturing practices, ABB's latest innovation provides a scalable, flexible, and cost-effective solution to meet evolving market demands. For manufacturers looking to enhance productivity, minimize errors, and unlock new possibilities in precision engineering, the GoFa™ with Ultra Accuracy is a game-changer that sets a new standard in collaborative robotics.

Stay Ahead with ABB

To learn more about ABB's latest advancements and explore how the GoFa™ Ultra Accuracy feature can transform your manufacturing processes, visit [global.abb](http://global.abb) or connect with ABB's automation experts at Automation Expo 2025.



GoFa™ Ultra Accuracy: when precision meets perfection