



WHITE PAPER:

The RBTX Marketplace

Reducing the Obstacles Between Industrial Automation and Your Business



Introduction

RBTX is a marketplace for low-cost automation that provides affordable equipment and simplified integration. Industrial automation plays a crucial role in enhancing productivity, efficiency, and safety within various industries. However, the high costs, complex implementation processes, and limited accessibility of automation technologies have traditionally posed significant obstacles for many businesses. This white paper explores strategies and technologies employed by the RBTX marketplace to reduce these obstacles, enabling organizations of all sizes to adopt automation solutions more easily.



The Two Pillars of RBTX

The bulk of costs in automation solutions consists of two main sources: hardware costs and the cost of getting hardware integrated and running. RBTX has made these two cost sources the pillars that the entire marketplace is built upon.

“Just-in-Spec” Automation Hardware

The many different elements involved in an automation solution can make finding affordable solutions a hassle. This is why RBTX breaks down automation solutions into individual components and then finds the lowest cost parts that will still meet the required specs of the system.

Simplifying Implementation Processes

Complex implementation processes and the need for specialized expertise often discourage businesses from adopting automation. RBTX simplifies these processes by consolidating all the necessary information into a single place, saving users time otherwise spent on research.



Free services like RBTXpert consultations and tools like the RBTX machine planner are also available to help spec an application and develop a solution that will give users a head start on their automation project.

Return on Investment (ROI) Analysis

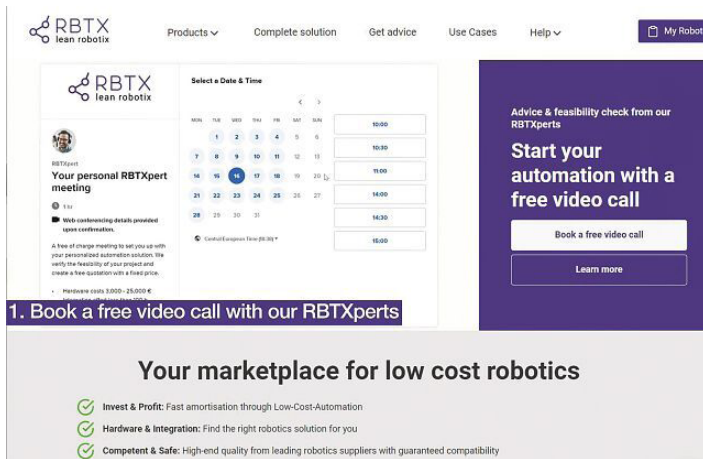
Demonstrating the long-term financial benefits of automation through comprehensive ROI analyses can help organizations understand the potential cost savings, increased productivity, and improved product quality that automation can bring.

Scalable Solutions

Once a solution has been developed and implemented, it's easy for users to expand their operations with RBTX. The integration involved in the initial implementation doesn't need to be repeated when simply installing multiple of the same system, allowing businesses to start small and expand their production as needed. This approach helps reduce upfront costs and allows for a phased adoption strategy.

RBTXpert Consulting

With the RBTXpert service, customers can speak directly with an experienced automation expert for assistance with applications. The process is very simple: customers enter their contact details and cornerstones of the project on the RBTX platform, choose their preferred date and time, and receive the link to the video call.



The screenshot shows the RBTX website interface. At the top, there are navigation links: Products, Complete solution, Get advice, Use Cases, Help, and My Robot. The main content area is divided into two sections. On the left, there is a 'Select a Date & Time' calendar with a grid of dates from 1 to 31. Below the calendar, there is a 'Book a free video call' button. On the right, there is a purple box with the text 'Advice & feasibility check from our RBTXperts' and 'Start your automation with a free video call'. Below this, there is another 'Book a free video call' button and a 'Learn more' button. At the bottom, there is a section titled 'Your marketplace for low cost robotics' with three bullet points: 'Invest & Profit: Fast amortisation through Low-Cost-Automation', 'Hardware & Integration: Find the right robotics solution for you', and 'Competent & Safe: High-end quality from leading robotics suppliers with guaranteed compatibility'.

During the video call, customers show the RBTXpert their application and process requirements, and the RBTXpert puts together a suitable solution. At the end of the call — once all the required information is provided — the customer receives a fixed price quote, which includes hardware costs and any required integration costs. Customers can contact an RBTXpert as needed if they have questions or concerns regarding their application.

Customer Testing Area

Included as part of the RBTXpert service is the customer testing area. Customer calls are conducted from the customer testing area, which is used to demonstrate and present solutions for the customer and help them visualize their options.

The RBTX Partner Network

The RBTX platform couldn't exist in the same capacity without its extensive network of over 75 partners. Consisting of technology leaders across the automation industry, RBTX partners range from integrators and financing partners to hardware and software providers.

RBTX Use Cases

Available to view on the RBTX website are close to 500 customer applications and proofs of concept that show off what's possible with the RBTX marketplace. Nearly all of these use cases implement components from various different manufacturers. Three such applications are examined below.

ReBeL® cobot arm inspects circuit board quality

Quality assurance is an essential factor for manufacturing and processing companies to reduce costs in terms of personnel and error prevention. To meet this goal, igus® has developed a complete low-cost system that makes it possible to automatically inspect circuit boards, for example.

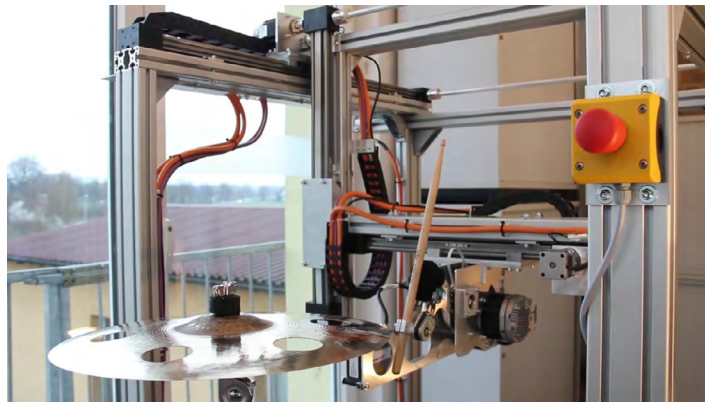


The system consists of a ReBeL 6-axis cobot mounted overhead in a Robocube cell. Cables are guided through a triflex cable carrier system for protection. The boards are located on a disc, under which there is a shaft gearbox used for the cobot's axes. Quality control is carried out by a camera system from SICK with a sensor for image analysis.

Automatic percussion test performed by a gantry robot

As the robot built by RBTX customer feinarbyte shows, robots also like to jam. The company developed a system for the automatic testing of drum cymbals. The most important thing here is that the cymbal is played with uniform striking power at defined points. This is the only way to obtain comparable striking angles and thus comparable sound recordings.

In order for this to succeed, the contours of all pools are optically measured at the beginning of the process. A sound recording is then automatically made for each strike. The audio samples are made available to Thomann customers in a web application in their store. This allows customers to listen to and compare the sound before buying a cymbal.



Conclusion

RBTX is striving to become the go-to platform that can solve any automation project through low-cost automation hardware and simplified integration. This is essential for enabling businesses, regardless of their size or industry, to harness the benefits of automation. By addressing cost concern through low-cost components and simplifying implementation processes, more applications within the industrial sector can “qualify” for automation and achieve rapid ROI. With these advancements, the potential for widespread adoption of automation technologies becomes more attainable, leading to a future of increased competitiveness and sustainable growth across industries.

Palletizing gantry robot at the Hannover Fair

The RBTX team was at Hannover Messe in 2023 to present some of their latest products. Among these was an igus gantry robot outfitted with BLDC motors and a vacuum gripper from Eberle Greiftechnik. The system used standard igus e-chains® specially designed for the gantries to protect pneumatic hoses and cables being used.



A typical palletizing application — often seen in the packaging industry — was demonstrated. The BLDC gantry was the right size to pick up standard Euro pallets in the work area and load them with ReBeL packaging for the showcase.