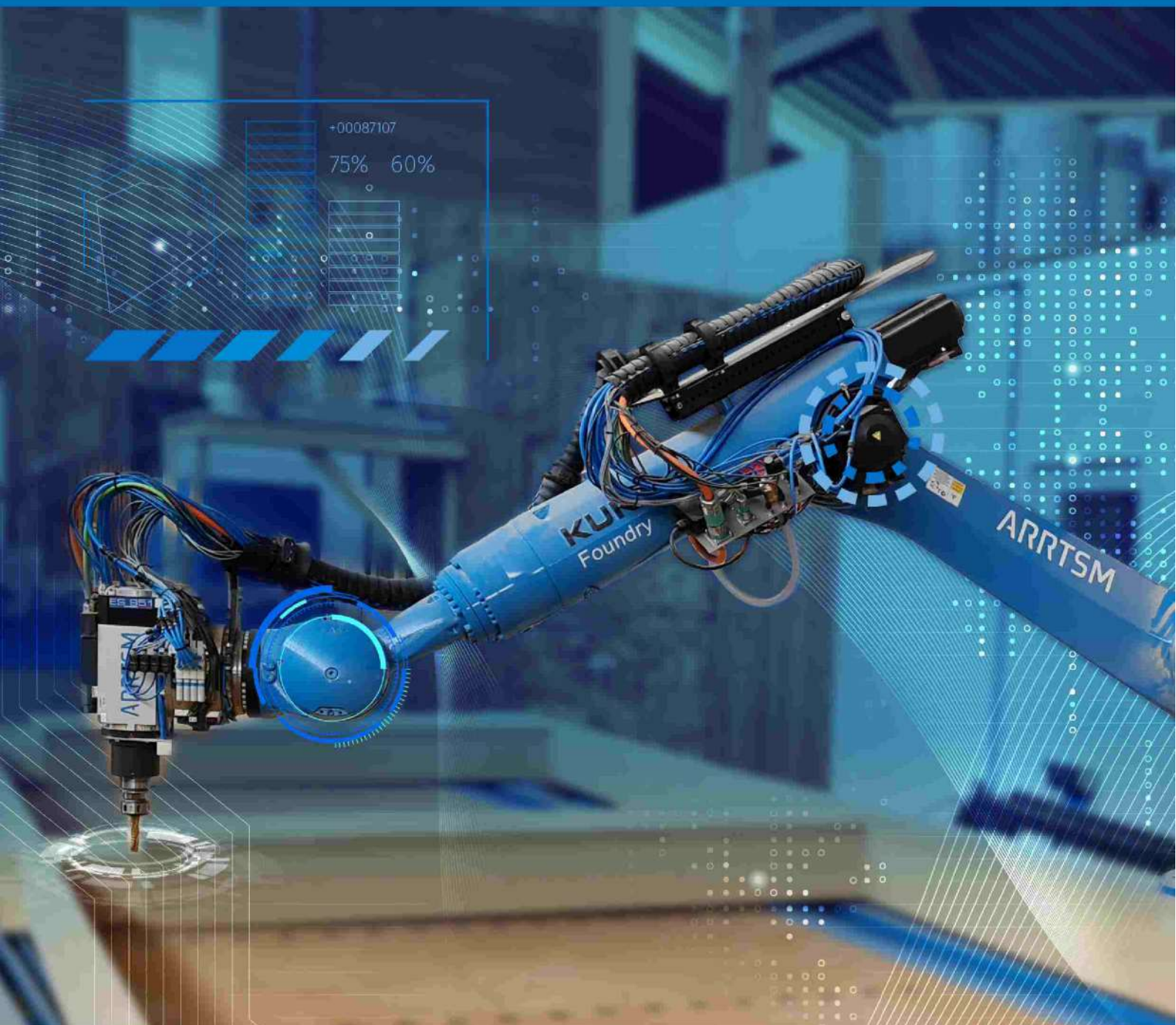


Advanced Autonomics



ADVANCED AUTONOMICS

Where Craft Meets Code

Revolutionizing Woodworking with Autonomous Intelligence



Assembled in USA

AUTONOMOUS CNC ROBOTIC SYSTEM FOR WOODWORKING

An autonomous CNC robotic system for woodworking merges the precision of CNC with robotic automation, enabling a high level of efficiency, precision, and versatility in woodworking processes.

The system operates autonomously, meaning it can perform woodworking tasks without constant human intervention. This autonomy is facilitated by our AI-driven software that controls the robotic arm.

The system includes a robotic arm equipped with various tools necessary for woodworking tasks, such as cutting, carving, sanding, drilling, and handling. This robotic arm is programmed to move with precision based on the design specifications fed into the system.

Our systems are designed to revolutionize woodworking industries by automating repetitive tasks and allowing craftsmen to focus on more complex and creative aspects of their work.



Precision woodworking at your fingertips!



3D path controlled.
Our software understands 2D/3D data to create manufacturing code for autonomous robotic system.

Seventh generation autonomous machining robots are available at your service.



© ADVANCED AUTONOMICS LLC

ROBOT AS WORKER



FROM
23\$/HOUR*
AS WOODWORKER



All Inclusive Package

Multitasking
Robot Arm,
Spindle, Gripper
Software package
24/7 Service

**Hourly price depending on the Robotics System*

The system operates autonomously, it performs woodworking tasks without constant human intervention. This autonomy is facilitated by our AI-driven software that controls the robotic arm, and the process.

***For further information:**

✉ sales@advanced-autonomics.com

☎ +1 978 620 7249



Unlock Seamless Operations 24/7

- Operate without interruptions, delays, or downtime
- Consistently punctual and peak performance

Maximize Your Financial Gains

- Instant cost savings with full transparency
- Swift 12-month return on investment, ensuring rapid financial growth

Experience the future of efficiency and Reliability

- Our cutting-edge solution guarantees success!

Additional Benefits:

- Streamlined workflow for increased productivity
- Unparalleled reliability with consistent performance
- Comprehensive data security with state-of-the-art encryption
- Scalability to adapt effortlessly to your business needs
- Expert support for prompt issue resolution
- Customizable solutions tailored to your unique requirements
- Green energy commitment, minimizing environmental impact

Applications

- Carpentry
- Joinery
- Wood Carving
- Cabinetmaking
- Furniture Making
- Finishing
- Art and Crafts

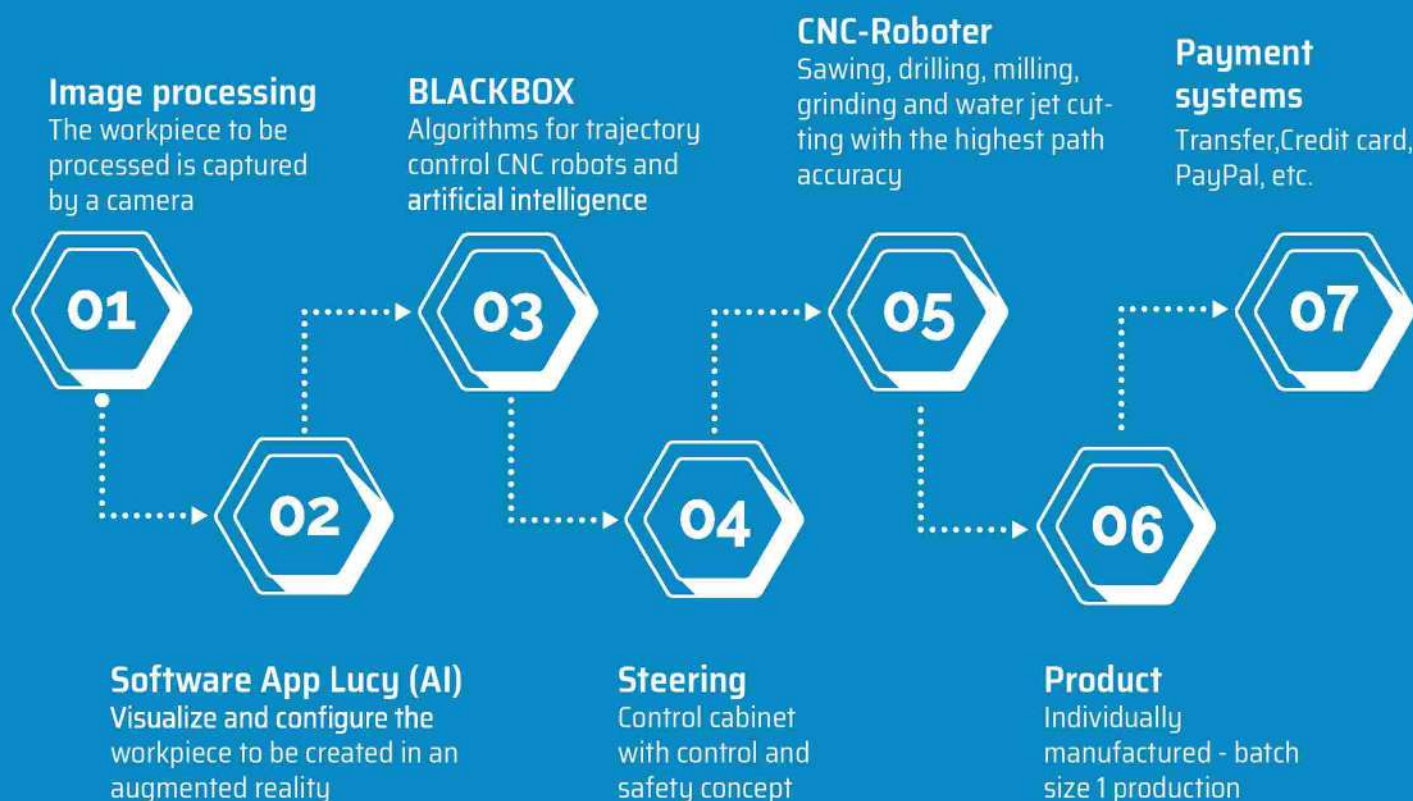


The CNC aspect involves using computer-controlled robots to precisely execute woodworking tasks according to digital designs. The autonomous system interprets these designs and translates them into precise movements and cuts.

AI algorithms continuously optimize the woodworking process by learning from data and making real-time adjustments. This includes adjusting for material variations and optimizing cutting tool paths and handling procedures for maximum efficiency.



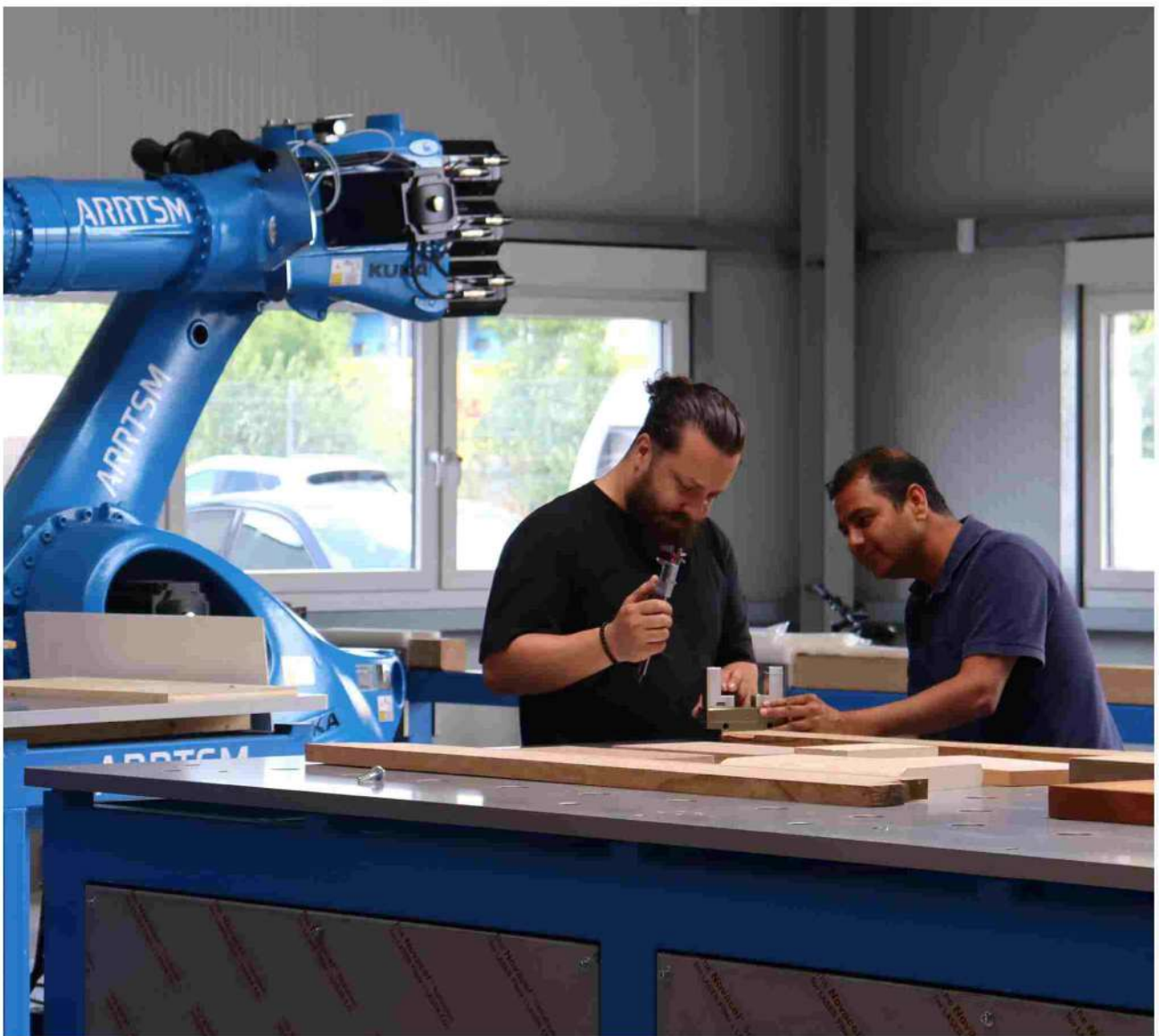
The "Turnkey" complete solution

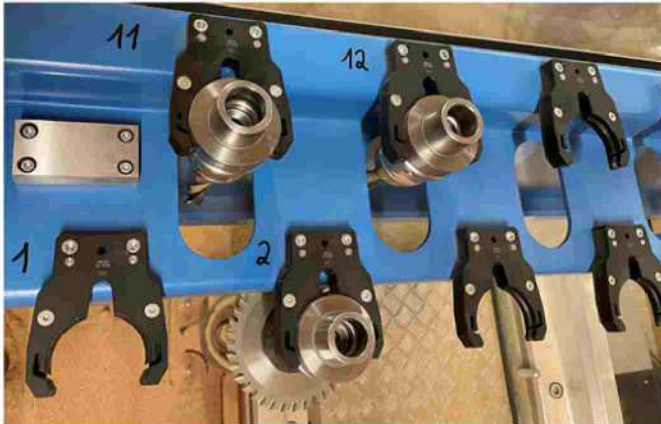


Our system components

Our CNC robot system is engineered for maximum flexibility, featuring Plug & Play modules that allow seamless expansion of machining strategies, data handling capacities, and integration of accessory hardware. The system can be easily scaled or adapted to fit various spatial layouts and production geometries.

The combination of further individual CNC robot systems to form an autonomous multi-CNC robot system is possible via Plug & Play.





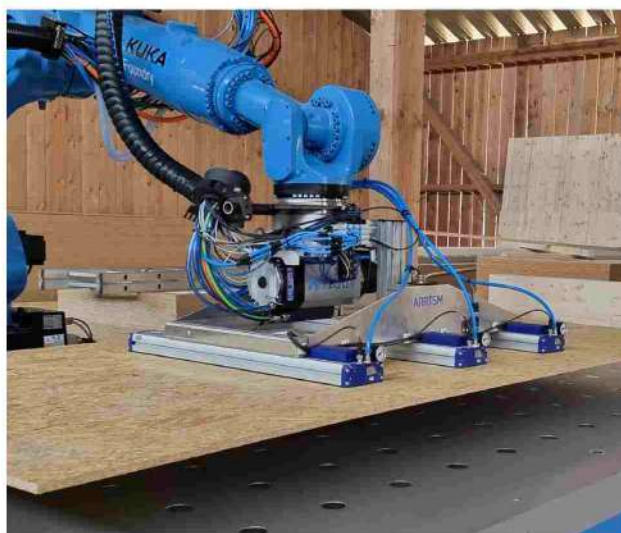
Tool magazine HSK 63F

The tool magazine consisting of a welded steel frame accommodates different tools. It is fitted with an automatically closing steel guard to protect the tool holders from chips. The rack is designed for automatic tool changing and has an automatic unlocking mechanism for the tool holders.



Workpiece probe RMP40

- Compact probe Ø 40 x 50 mm.
- Transmission of the switching signal in the 2.4 GHz band and sequential activation option for a maximum of 4 probes.
- Automated measurement of workpiece position and alignment directly on the machine.



Autonomous interchangeable gripper

For workpiece handling tasks, we offers a portfolio of different, modular and interchangeable grippers in different load categories. All grippers can be used during processing automatically put on and taken off. Quick couplings ensure that the robot can be changed over quickly and safely. These are for different applications available.

Processing table for sawing/milling/Drill

The table corresponds more autonomous Machining station according to US patent US2020061763.



Features

- Workpiece clamping with double suction vacuum pads in a block construction.
- Surface table: material aluminium
- Automatic pins
- Integrated valve island
- Autonomous control

Payload:	about 4 tons
Design type:	Frame with supports designed for a stable welded construction
Frame-material:	Made of rust-proof material (powder-coated RAL 5015)
Dimensions.	Up to W: 1,500 mm, L: 9,000 mm H: 520mm



Block suction cups / tensioners

- Incl. vacuum pump
- Ready to go

Tool measuring device

RTS Toolsetter for tool measurement with radio transmission. The 3D tool measuring device is a high-precision, wireless measuring system, which is very economical.

Allows for tool length and radius measurement as well as tool breakage control within the CNC robot system.



Your partner for Manufacturing 4.0

Your project – Our passion

Our experts will configuring the right robotic system for your application.

Basis Robotic System 'MXT'

Types	KUKA KR 240 R 3330 F	Linear unit KL 4000
Rated payload (kg)	240	4000
Maximum range (mm)	3326	Up to 30 Meters or 100 Feet
Pose repeatability (mm)	± 0.06 without Equipment	± 0.02
Weight without equipment (kg)	1.198	stroke dependent

F - Foundry: In the Foundry variant designed for foundry applications, the robot is protected against adverse environmental conditions with protective bellows. (degree of protection IP65)

* (ISO 9283, mm)

Spindle options

Spindle	Heavy Duty	Medium	Small
Power S1 / S6 (KW)	25 / 30	16 / 19.2	7.5 / 9
Torque S1/S6 (Nm)	23.9/28.6	19/22.8	6/7.2
Tool holder	HSK F63	HSK F63	HSK F63
Max Speed (RPM)	18.000	24.000	24.000
Rated Speed (RPM)	10.000	8.000	12.000

Other spindles available on request.

Customized production

Batch Size One Manufacturing

- Low setup costs
- Diverse processing options.
- No programming work necessary
- High Precision for work with critical tolerances.



Timber MXT 2: Revolutionizing Woodworking

Timber MXT 2 is designed to revolutionize woodworking processes by combining advanced robotics with traditional craftsmanship, offering increased efficiency, precision, adaptability in an array of woodworking and joinery applications. Our 360 degree workspace design expands the possibilities for automation in its extreme form. The versatility in maneuvering and operating in all directions opens up new opportunities for efficient, precise and adaptable robotic solutions.

A multitasking autonomous joinery and woodworking robotic system

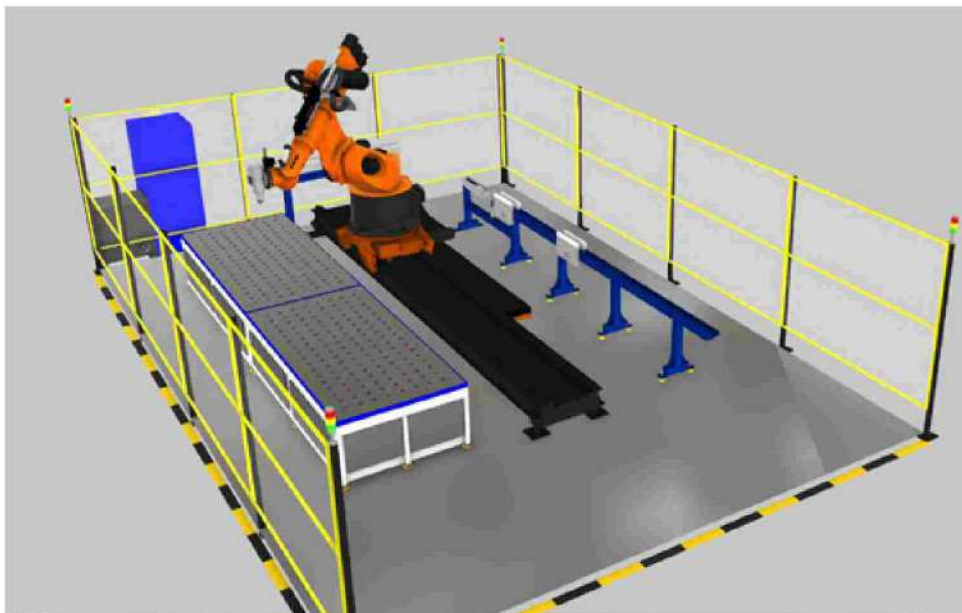
A 6-axis robotic system with a 7th linear axis, with Workpiece Gripper for Plates and Joinery
The Joinery section is with Modules.

Handles workpieces from (79 -2.36" 11.8- 17.71")

The basis Modules for every structural timber processing company.

Length up to 3500 mm

Table with Panel Manufacturing 12000 mm X 3000 mm



Artificial Intelligence in Construction: Batch Size 1 in Joinery



Robocrafter RT Series AMR: 24/7 Autonomous Profit Driver

Powering the Next Generation of Smart Factories

AMR WITH POWERED ROLLER TOP

Feature Highlights:

- High precision, Safe, efficient, scalable intralogistics
- Configurable for your operations
- Handles 4400 pounds loads with ease
- UL certified reliability
- Advanced safety systems (anti-pinch, explosion-proof)

Unmatched Uptime

The Robocrafter RT AMR offers up to 10 hours of continuous operation, ensuring non-stop material handling. With a rapid 1.5-hour charging time, it minimizes downtime, allowing for 24/7 productivity and efficiency in your intralogistics operations.

It replaces forklifts and reduces labor costs. Its advanced features eliminate the need for manual handling, freeing up your workforce for higher-value tasks and significantly cutting operational costs.

Technical Data / Technical Details:
Data and specifications available upon request.



Autonomous Warehouse Solution

Beyond Transport. Complete Autonomous Handling.

A proprietary AMR and components to lift and transfer goods seamlessly

All-in-One Unit

- Integrated powered conveyor + lift for full task automation.
- Plug-and-play setup, ready within hours.
- Handles 220-4400+ pounds with millimeter-level precision.

Why It Matters

- **Solves the “Last-Foot” Problem:** Not just delivery, full task completion.
- **Proven Demand:** Anchor client funded the first unit; second order underway.
- **Scalable & Secure:** Assembled plant in Ohio for quality control and supply chain stability.



We deliver unmatched efficiency and a rapid ROI by automating the entire material handling process.

CUSTOM SCISSOR LIFT

Effortless Material Handling

The AACSL-PR-3002 scissor lift features a powered roller top that effortlessly moves up to 4400 pounds. Its adjustable height range of (11.81" - 59.65") ensures ergonomic operation, reducing operator fatigue and increasing productivity on the shop floor.

Safety & Reliability

With stainless steel fencing, anti-pinch design, and UL-certified overload protection, the AACSL-PR-3002 prioritizes safety. Schneider Electric controls and a 24-month warranty ensure long-term reliability and minimal maintenance costs.



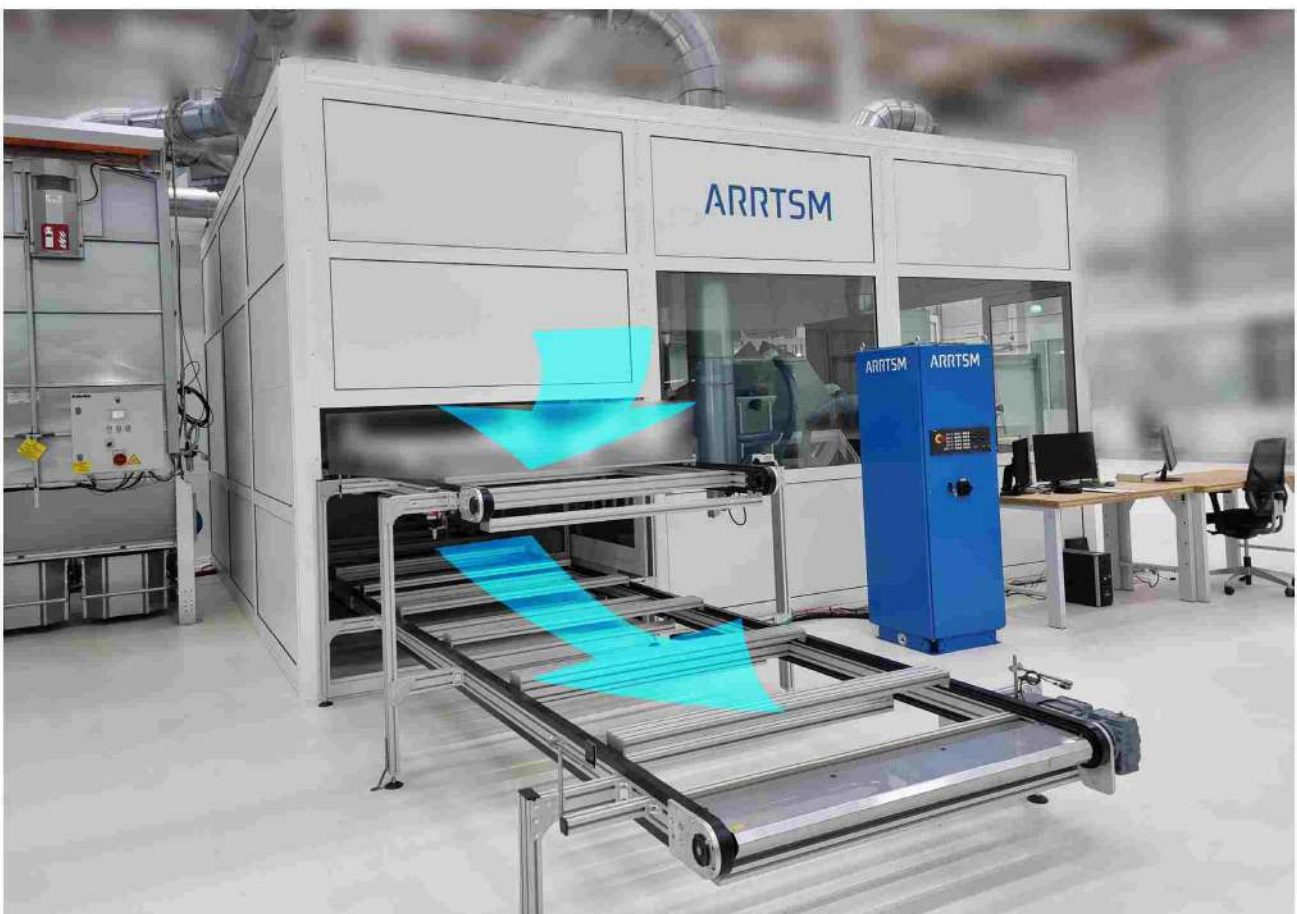
| Experience the future of automated lifting.

Dream Machine

Our expertise in a custom-made robotic system tailored to your specific needs.

Welcome to Advanced Autonomics, your gateway to a new era of woodworking excellence. We take pride in being the global leader in supplying cutting-edge, revolutionary autonomous solutions tailored for the woodworking industry. Our ability extends to Frame Works, Carpentry, Joinery, Art, and Craft, ensuring a comprehensive and unparalleled approach to woodworking innovation.

Immerse yourself in the pinnacle of technological advancement with our meticulously crafted. autonomous solutions, a testament to the visionary brilliance the trailblazer, in autonomous manufacturing. At advanced Autonomais, we don't just offer solutions, we supply an experience, a seamless integration of groundbreaking technology and precision craftsmanship.



Customer Wingcooper Germany, an example of Dream Machine

LUCY APP

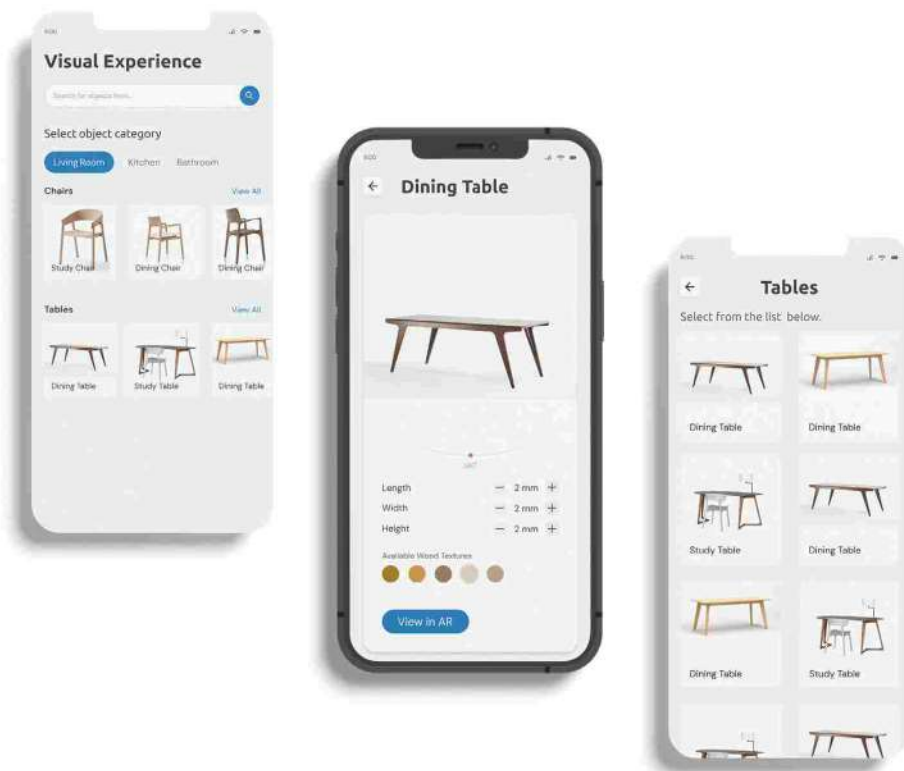
Configure and order

The Lucy Wood App offers you an innovative user interface for defining the workpiece characteristics such as size, configuration and features. The application enables you to enter your values quickly and easily and then transmits them to our BLACKBOX.

You can also select saved components from the component catalog and have them manufactured. This streamlines your manufacturing process and enables you to work productively. The Lucy Wood app is continuously optimized by our developers and UX designers and features are added.

Benefits of our app

- Adapt pre-configured products and display them at the installation site
- Production without further manual intervention
- Programming complex shapes
- Definition of tool paths and tool parameters
- Programming of up to 6 axes
- Direct control using G code



Technology

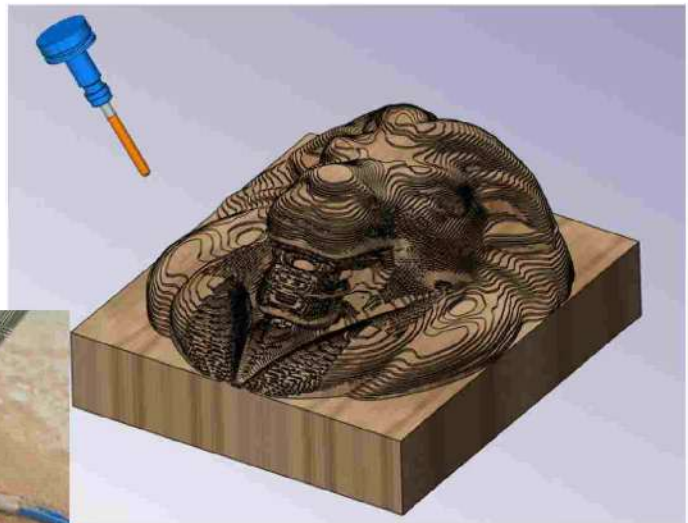
Simple Operation via App/Software RoboNC

CAD/CAM-Software RoboNC

With our software, innovative 6-axis industrial robots including any additional axes can be reliably programmed offline. Any workpiece geometries are calculated, checked and verified using modern processing algorithms.

Functions

- Import of all common CAD formats
- Simulation of material removal
- Drawing and editing 2D/3D geometries



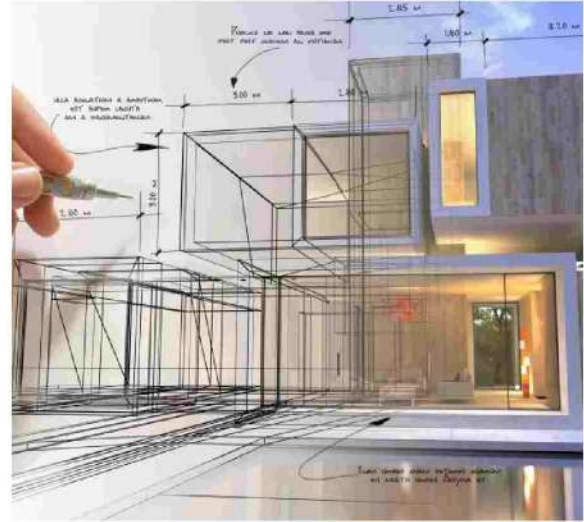
The simulation module offers a virtual representation of the entire robot cell and simulates the movements of all axes. In reality, this prevents collisions while the CNC program is running.

RoboNC comes with predefined woodworking tools. Special tools can be added.

Software

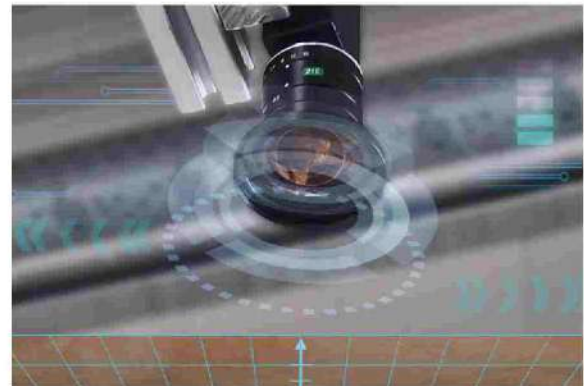
Our software functions as a powerful tool in the transition from design to fabrication, seamlessly bringing concepts to life. The process begins with a 2D or 3D CAD drawing, which serves as a digital blueprint for the piece to be created.

When the design is ready, the CAD file is imported into our advanced software system. Our technology recognizes and interprets the geometric data from the drawing. Depending on the complexity of the design, the software might create a series of machine operations to produce the piece, or it might intelligently delegate different tasks to various machines.



Artificial Intelligence Pack

Industrial image processing, also known as machine vision, is a field that involves the use of computer vision and image processing techniques for automation and quality control in industrial environments. It involves capturing 2d or 3d images and analyzing images or videos of products, processes, or components in real time, to extract valuable 2d or 3d information from the given product and make decisions based on the detected information from the object to be processed.

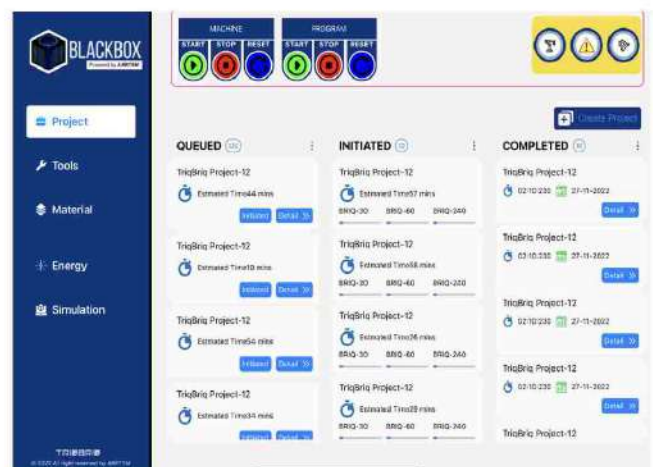


Smart, Customizable Interface

Our user interface offers a streamlined, intuitive dashboard for managing all production stages—Queued, Initiated, and Completed. Each project card displays key metrics like Estimated Time, Energy Use, and Machine Status for real-time decision-making.

Key Features

- Segmented Workflow View for easy task tracking
- Direct Machine/Program Controls (Start, Stop, Reset)
- Live Alerts for system status and warnings
- Quick Project Creation for smooth operations



Fully Customizable – Our UI/UX team adapts the interface to fit your specific processes, branding, and operational needs.



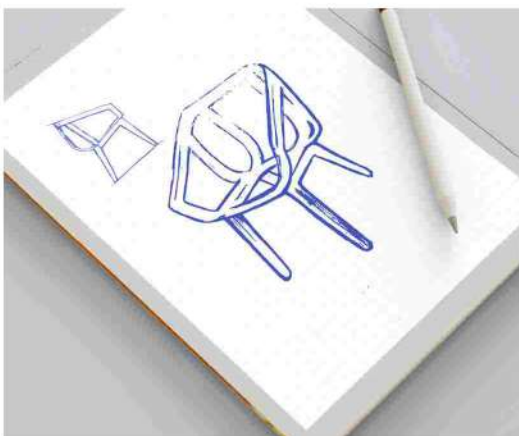
MOB CARP Augmented Reality

- Placing and moving 3D digitally reproduced furniture as in the real world
- Scaling of the objects independent of the axis directions
- Change material and pattern with one click
- Taking photos for later viewing and dissemination
- Automatic editing code generation and synchronization to server and control unit
- Compatible with the most popular mobile operating systems:
 - : Android
 - : Apple iOS.



Door App

- Simplified coordination of your door designs, including transfer to the robot for automated production
- Numerous practical parameters such as size, Alignment and rebate of the door leaf and frame, position and number of locks and hinges, as well as a wide variety of design options
- User-friendly operation via intuitive user interface
- Compatible with the most popular mobile operating systems:
 - : Android
 - : Apple iOS.



Freehand

- Capturing freehand drawings (sketches), e.g. letters, numbers, words, outlines of animals, symbols and much more
- Adjustable font and size for engraved font
- Material selection and intelligent positioning
- **Automatic material and fiber flow detection**
- Collision monitoring and tool compensation
- Automatic creation of editing code and synchronization to server and control unit
- analysis of usable material, Scrap and potentially reusable offcuts

AR

Our Augmented Reality Web-Based Reality projects the end products 1:1 with the highest Information density through interactive, animated representations of planned or already existing wood products. These applications also serve as interactive tools for interior design planning, helping to stimulate the customer's imagination. They can even replace the manual for product assembly.



Monitoring

- Real-time monitoring of robot activities and states
- Display of the executed programs
- Secure connection to the server via VPN
- Monitoring of the trajectories of the collision prediction robot up to 5 minutes into the future



Service

- Automatic creation and visualization of a virtual image, digital twin of the robot
- Detection and tracking of objects based on 3D models
- Transmission and display of the robot parameters in real time
- Remote diagnosis in case of error messages of the robot



Service

Service is very important Advanced Autonomics. The maintenance of the machines is therefore a central point in our company, also from the point of view of safety. With our strong industrial partners Siemens and KUKA, we cover our service and the procurement of spare parts safely and quickly.

- Extensive technical advice prior to purchase
- Assembly, commissioning and including support of manufacturing
- **In the first year, in addition to the warranty,** software updates and support free of charge contain
- Remote maintenance
- Inspection



Annual inspections and maintenance increase the availability and service life of the CNC robot system. Ensuring machine availability and production security. During the inspection, we assess the current condition of the machine. The technicians check all basic settings as well as wear, function and safety. The inspection report documents the necessary replacement and wear part recommendations.

Your added value

- Increase in availability and service life
- Increase in safety
- Elimination of wear-related faults
- Guaranteed quality and productivity of the CNC robot system
- Early detection of maintenance measures



Training

We offer training for the education and training of your employees. The training courses take place regularly and are conducted by our qualified trainers. Appointments on request, you can find the contact on our website.

- **Operator Training:** The customer's technicians and maintenance staff will receive technical instruction on the CNC robot system and AMR. Training documents are included within the scope of delivery, along with a training protocol to be handed over upon completion. Participation and understanding of the training content will be verified and taken into consideration.
- The CAD/CAM programming training can take place before/after delivery of the CNC robot system.
- **We also offer on-site training.**



Autonomous Timber Fabrication: Precision That Builds the Future

ITECH Pavilion

Mass Timber.

We transformed digital timber designs into install-ready pavilion panels, zero rework needed. Our large-format cell, with a 12 m axis and 3.1 m robot arm, handled everything from cutting to polishing in one seamless run.

Advanced toolpaths and real-time probing ensured clean edges and perfect interfaces, even on complex forms.

Oversized ready:

12000 mm + 3100 mm

All-in-one cell:

Saw, mill, polish in one setup

Built-in QA:

Simulation, collision checks, closed-loop control Bring us your façade or pavilion, we'll deliver precision that fits fast and clean.



Domespace Passive Home

Hardwood Mastery. Autonomous Precision. Using UC5-grade African hardwood, we machined high-tolerance dome components, perfect arcs, deep pockets, and tight joints.

A 25 kW spindle and adaptive feeds ensured flawless cuts, even in dense and oily hardwoods.

Power meets control:

25 kW + 3330 mm reach

Zero rework:

Saw to polish in one run

Ready to install:

Crisp, clean interfaces that lock in From domes to free-form forms, we make your vision fit, beautifully.



From Workshop Roots to World-Leading Automation

It all started in a small workshop in Germany, 2011. I was programming a complex multi-axis CNC machine, expensive, complicated, and out of reach for most customers. That challenge sparked a mission: make advanced automation simple, powerful, and accessible.

After years of innovation, we built an engineering company near Stuttgart that evolved into a capital-backed pioneer in AI-driven autonomous woodworking. In 2023, we moved the HQ to the U.S., and today, we serve creators across Europe, the U.S., Australia, and beyond.

Vision & Mission

Our Vision: To give every creator, from solo woodworkers to global manufacturers, the power to produce exceptional results through intelligent automation.

Our Mission: We build autonomous systems that combine AI, robotics, and adaptive control, turning digital designs into production-ready components with unmatched precision.

We help customers:

- Reduce manufacturing costs
- Scale with speed and accuracy
- Stay competitive in a fast-moving world

Backed by a decade of experience, we don't just deliver machines, we deliver your advantage.

Let's bring your business to the next level.



ADVANCED AUTONOMICS LLC
Palo Alto, California
United States of America

ADVANCED AUTONOMICS

Where Craft Meets Code

Revolutionizing Woodworking with Autonomous Intelligence

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🌐 www.advanced-autonomics.com



Videos