MAKING ROBOTS SMART

robobrain®

Next Generation of AI Robotics.

robominds

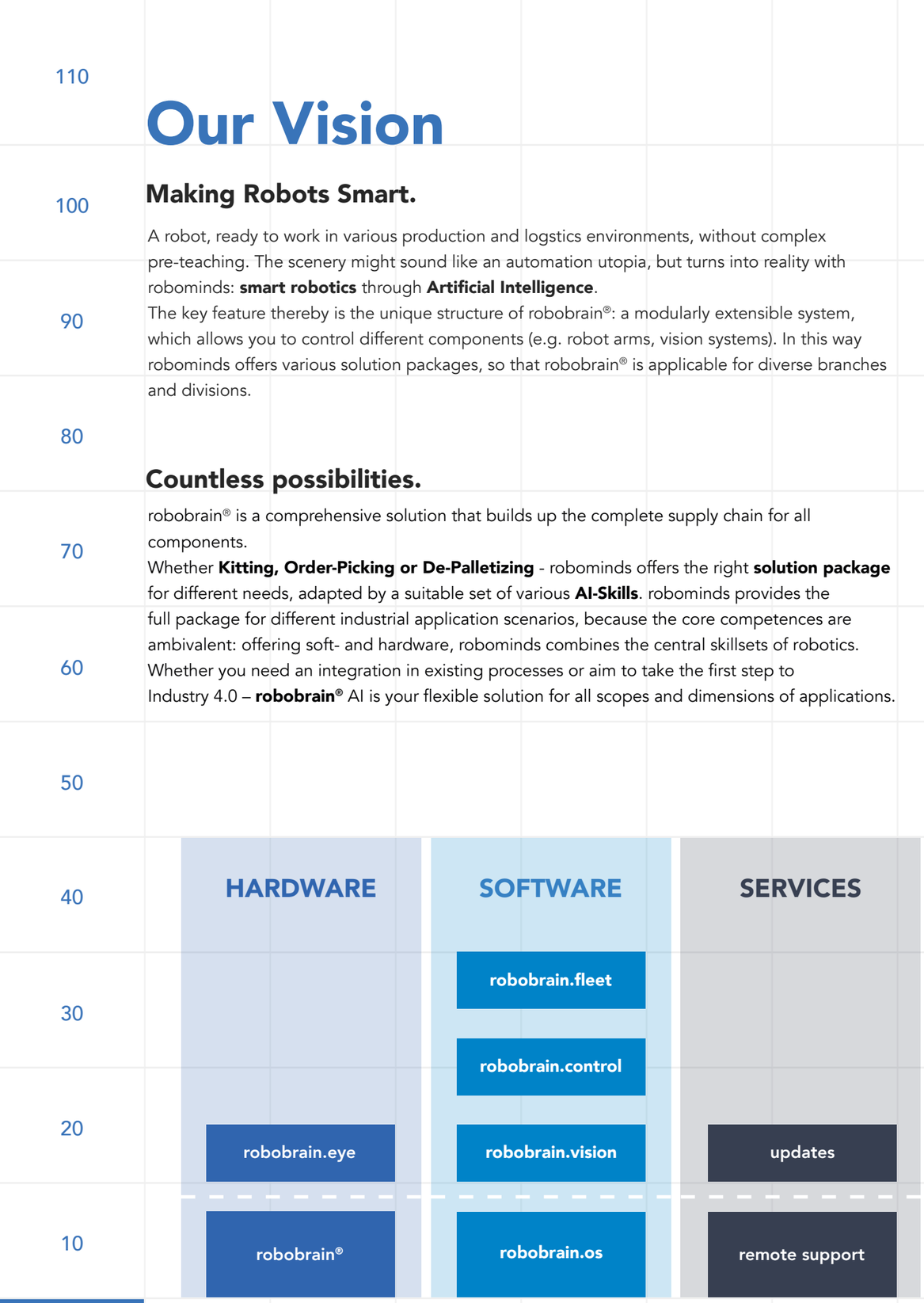
Our Vision

Making Robots Smart.

A robot, ready to work in various production and logstics environments, without complex pre-teaching. The scenery might sound like an automation utopia, but turns into reality with robominds: **smart robotics** through **Artificial Intelligence**.
The key feature thereby is the unique structure of robobrain®: a modularly extensible system, which allows you to control different components (e.g. robot arms, vision systems). In this way robominds offers various solution packages, so that robobrain® is applicable for diverse branches and divisions.

Countless possibilities.

robobrain® is a comprehensive solution that builds up the complete supply chain for all components.
Whether **Kitting, Order-Picking or De-Palletizing** - robominds offers the right **solution package** for different needs, adapted by a suitable set of various **AI-Skills**. robominds provides the full package for different industrial application scenarios, because the core competences are ambivalent: offering soft- and hardware, robominds combines the central skillsets of robotics. Whether you need an integration in existing processes or aim to take the first step to Industry 4.0 – **robobrain®** AI is your flexible solution for all scopes and dimensions of applications.



robobrain® and robobrain.os

robobrain®, operated by robobrain.os is core of the whole system: a robotic operating system where all modules are installed and excecuted. Another important task of robobrain.os is keeping all single modules constantly up to date.

robobrain.vision

With Artificial Intelligence the software solution robobrain.vision enables the robot to recognize and pick various objects. Independent of their material or shape the system recognizes the objects untrained and automatically detects the ideal picking points.

robobrain.eye

Depending on the application structure the lightweight vision camera robobrain.eye can be mounted externally or directly at the robot. The camera virtually takes over the eyesight of the robot and therefore is part of the vision system.
The combination of robobrain.eye and the intelligence of robobrain.vision leads to a smart hand-eye-coordination, which enables smart picking for everyone.

robobrain.control

robobrain.control is variously useable: an operating system for a wide range of processes and all components within. In the logistics for example robobrain.control can takes responsibility and control of the entire management of commissioning processes: from order processing to path planning of mobile robots up to the control of vision systems.

robobrain.fleet

robobrain.fleet centrally manages the information about all robot control systems used within the process. Every system constellation, like e.g. robotarm and gripper is recorded by robobrain.fleet and the software tracks their status in real time. Through this a constant overview about the health status of every single component used in the constellation is guaranteed and thereby also about the entire system.
The strength of robobrain.fleet is its flexibility: by means of plugins the software enables a holistic robot fleet control. Artificial Intelligence provides an intelligent fleet control and a smart path planning of all single robotic components in the entire process.

robobrain.vision

Smart picking without teaching - enabled by AI.

Hand-eye-coordination is one of the most complex tasks in robotics - robobrain.vision solves it with the help of **Artificial Intelligence** and complex vision algorithms.

Based on AI the software solution robobrain.vision locates the pick points for various objects automatically and regardless of their coordinates. Therefore, even unknown objects can be handled without any pre-teaching. This way the recurring set-up times due to product changes can be reduced to zero.

Due to the smart setup of robobrain.vision different grippers can be used **independent of the manufacturer**. Furthermore the multi-compatible interfaces enable the robot's direct pick to object, both via the manufacturer's solution and via robomind's robot control system robobrain.control.

UNIVERSAL ROBOTS+
Certified

Certified for Universal Robots –
integrable for all manufacturers.

The robominds plugin URCap is officially certified by and for Universal Robots.
When using Universal Robots, no specific integration of **robobrain.vision** is necessary – you can use the software right away. Thanks to simple interfaces compatibility with other manufacturers like Kuka or Franka is possible too.

Technical specifications - robobrain.eye:

Size	120 mm x 40 mm x 34 mm
Weight	274 g
Temperature	5° - 40° C
Protection class of camera	IP54
Protection class of controller	IP20
Identification	CE-conform
Object reognition time	under 400 ms
Picks per hour	450 - 500 PPH (reference value)
Compatible grippers	parallel, vacuum, magnet

From smart to mobile

The next level of smart robotics.

Smart robotics can even be upgraded: to **mobile smart robotics!**
The latest robobrain® solution is a mobile picking robot which will be working in kitting areas and shopfloor logistics. Just imagine: smart robots driving through huge shelves in warehouses, assembling all needed parts for further processing.

A future vision? - Not anymore: robominds has already implemented a first mobile picking and kitting robot.

The „all in a box"-solution

Ready to use in just a few steps.

Our robobrain.suite fits in just one box: the robobrain industrial PC, the robobrain.eye vision camera, the calibration plate, cables and plugs.
Supported through wizards and a Web-GUI, the whole system is easy to set up for every user:

1 Unbox

2 Plug in

3 Install

Convince yourself:

Watch the robobrain.suite's fast configuration here:

Y
X

AI is now

We are smart - we are robominds.

We work passionately on robotic innovations to drive your business forward.
For our vision - **making robots smart** - we develop intelligent systems, granting new roles for robotic systems within an automized work environment. We show you optimized system compositions and provide personalized support for defining your solution. On request we can also individually develop a complete system tailor made for your needs.
Our aim is to support companies in their automation processes, to design this as effective as possible and after all make artificial intelligence accessible for everyone.

Find us here.

January 2020:
robominds is part of the world's largest technology and science museum, Deutsches Museum in Munich.

February 2020:
robobrain.vision is certified as UR+ vision solution for Universal Robots - find our vision solution on the UR website.

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Interessted?

Let's get in touch!

If you have any questions or something else to share, feel free to contact us.

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