



Robocoaster

Six-dimensional fun – the world's first passenger-carrying robot



KUKA

WORKING IDEAS

LEISURE-TIME ROBOTS

The high-performance robots of today can do anything and work around the clock. But what about leisure time? There's only one thing on the program – fun! The Robocoaster is a revolutionary new ride – the world's first passenger-carrying robot. It can move up and down, backwards and forwards, accelerate and brake, tilt in all directions, rock, loop-the-loop, turn, spiral, perform waves and camelbacks ... Robocoaster translates simply as the ultimate, surprise-packed fun ride. It defies all comparison.

Single Robocoaster

Here, on the right, is the Single Robocoaster – without decorative enclosures and other such paraphernalia, but in full possession of its technical capabilities. A perfectionist and all-rounder, it was originally designed to perform a wide range of industrial tasks. But anyone who can build cars, stack pallets or pour metal can also whirl two people through the air in a double seat.

The Single Robocoaster is the ideal solution for small spaces where something special is required: it reaches almost 7 m into the air, attracts a crowd and draws attention to promotional events; and the best thing is: It has never been done before!



Robotrailer

Robocoaster on tour: all you need is a truck and this unique ride can take to the road. Whatever you are planning, take the Robocoaster with you and you can be sure of a great deal of attention and fun!

Securely mounted on a trailer, it can quickly and easily be transported from place to place. It goes without saying that the Robotrailer offers the same full range of ride figures as any other Robocoaster.





Xtended Robotower Mauner Söhne GmbH & Co. KG, Munich

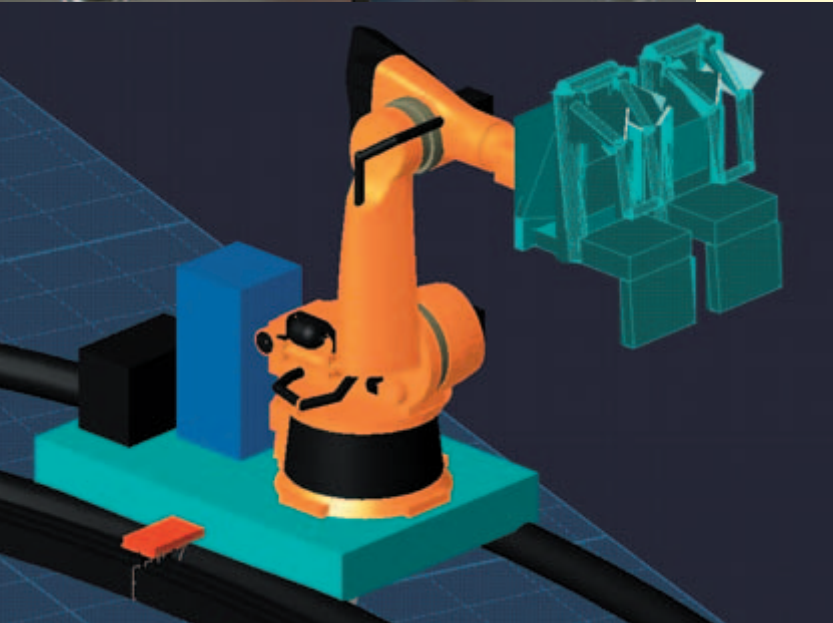
Multiple Robocoasters

And now imagine a whole group of Robocoasters, each with its infinite range of programming options and ride variants: lined up in a row and performing the same acrobatic ride program in perfect harmony. Or the Robocoasters whirl around individually, each with a different program. An impressive experience for passengers and spectators alike.

The arrangement of the Multiple Robocoasters can be flexibly adapted to suit the room available: a circle, square, polygon or straight line – everything is possible ...

Robotower

What works on the ground also works at dizzying heights: a number of Robocoasters mounted on a tower structure to form a Robotower. This brings an indescribable range of experiences for the passengers: from fantastic views to breathtaking plunging motions. Give your fantasy free rein and design your Robotower the way you want it. Left, a half-model of the wildly rampant giant octopus "Octomone".



Robotrack

Alternatively, how about placing the Robocoaster on a track? The Robotrack and its surroundings can be freely designed and adapted to suit any theme, from a fairy-tale park to a techno/space landscape. Each robot can offer an individual ride program, or you can have a long train for any number of robots with a synchronized program. The ultimate kick on this ride is provided by the track itself: depending on the layout, anything is possible, from a peaceful, scenic ride to a highly-curved roller coaster track, or even an adventure layout with thrilling special effects.

ROBOCOASTER™



EXPERIENCE THE ROBOCOASTER



Simon (14): "Totally crazy, what this thing does. The most awesome part was that big loop. For a moment you can't tell up from down."



Sibylle K. (59): "My grandchildren say I'm out of my mind, but I'm a fan and have to try out every ride. This Robocoaster is really something totally new: it goes in all directions, completely unpredictable, up, down, and around, upside-down, feet in the air, sometimes you feel like you are flying loose. And then the technology is also fascinating – incredible what you can do these days. Fantastic!"



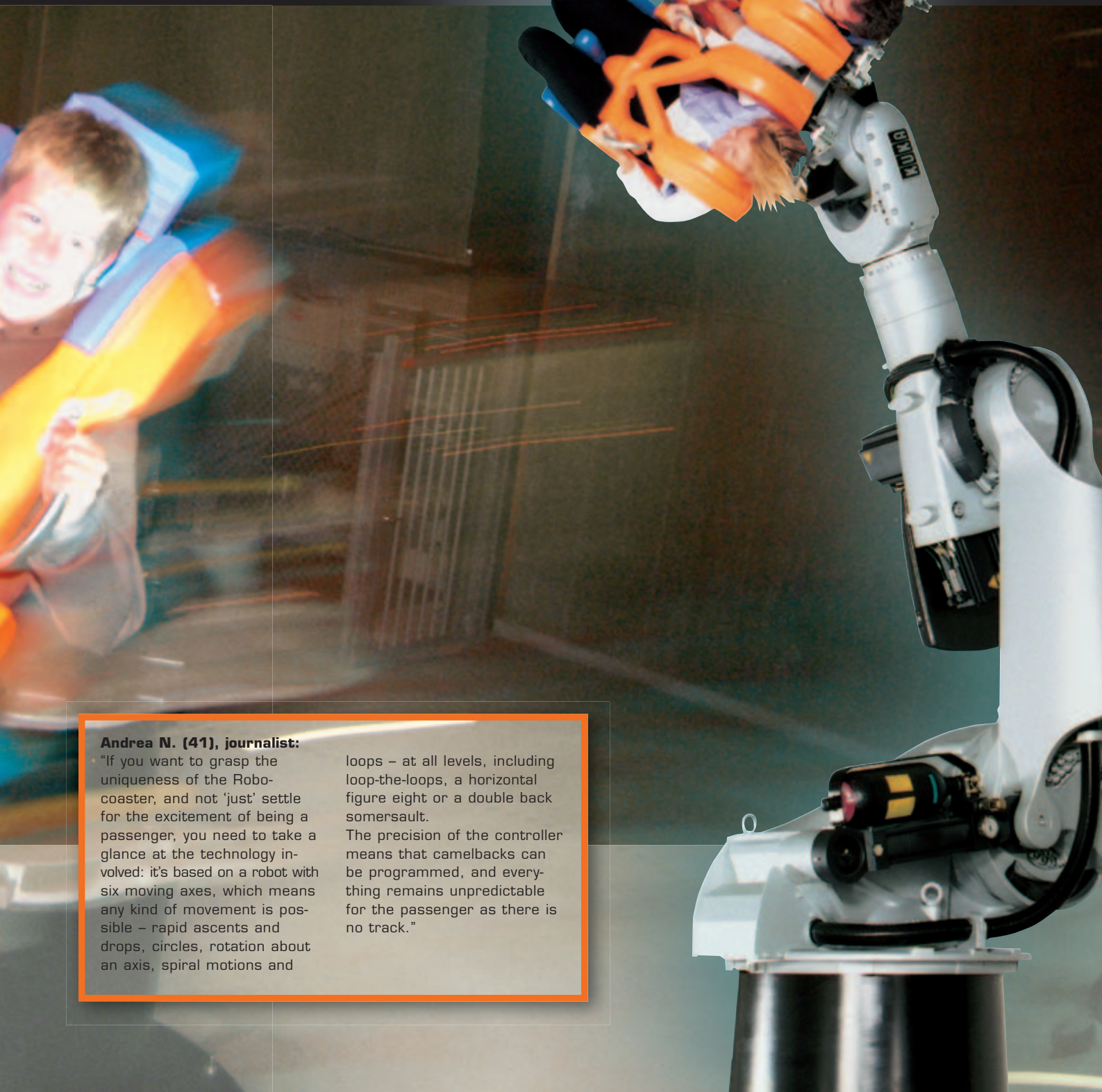
Steffi (33) und Sebastian (35) M.: "The children find it brilliant, of course, and want to ride it again and again. We tried it ourselves, and the great thing is that you can choose between a gentle ride you can really enjoy, a little rougher, or totally wild."

LIMITLESS AND WEIGHTLESS

There it is: six motors, two seats and a controller – nothing more.

Climb in, fasten restraints and off we go! Pulled upwards and backwards, over onto your back, round and round in spirals and moved as if riding the waves. Tilting, jolting and sudden stops – the choice is yours. Behind the endless variety of the Robocoaster ride motions is an industrial robot that can be moved in six axes and which has proved its worth the world over.

No path, no track, no linkage, no plane is predefined. For the passenger, this means that nothing is predictable – you never know what is coming next. An endless variety of motions can be programmed: from gentle, pleasant ride profiles to hard thrills.



Andrea N. (41), journalist:

“If you want to grasp the uniqueness of the Robocoaster, and not ‘just’ settle for the excitement of being a passenger, you need to take a glance at the technology involved: it’s based on a robot with six moving axes, which means any kind of movement is possible – rapid ascents and drops, circles, rotation about an axis, spiral motions and

loops – at all levels, including loop-the-loops, a horizontal figure eight or a double back somersault.

The precision of the controller means that camelbacks can be programmed, and everything remains unpredictable for the passenger as there is no track.”

SAFETY AND QUALITY

Fun is a must. So too is safety. The Robocoaster may be new to the world of amusement rides, but the technology behind it is tried-and-tested in industry, with nearly 50,000 robots in operation worldwide.

- Tested and certified in accordance with DIN 4112 by TÜV Süddeutschland (Technical Inspectorate, Southern Germany)
- Conforms to ASTM and ADIPS standards
- Manufactured in accordance with QM system ISO 9001
- All main robot modules are quality-tested with materials test certificate
- Safety even during extreme motions thanks to acceleration and torque monitoring



SERVICE AND SUPPORT

KUKA products are already well known in industry for their high reliability, safety and cost-effectiveness, and these features are also appreciated by companies in the leisure industry.

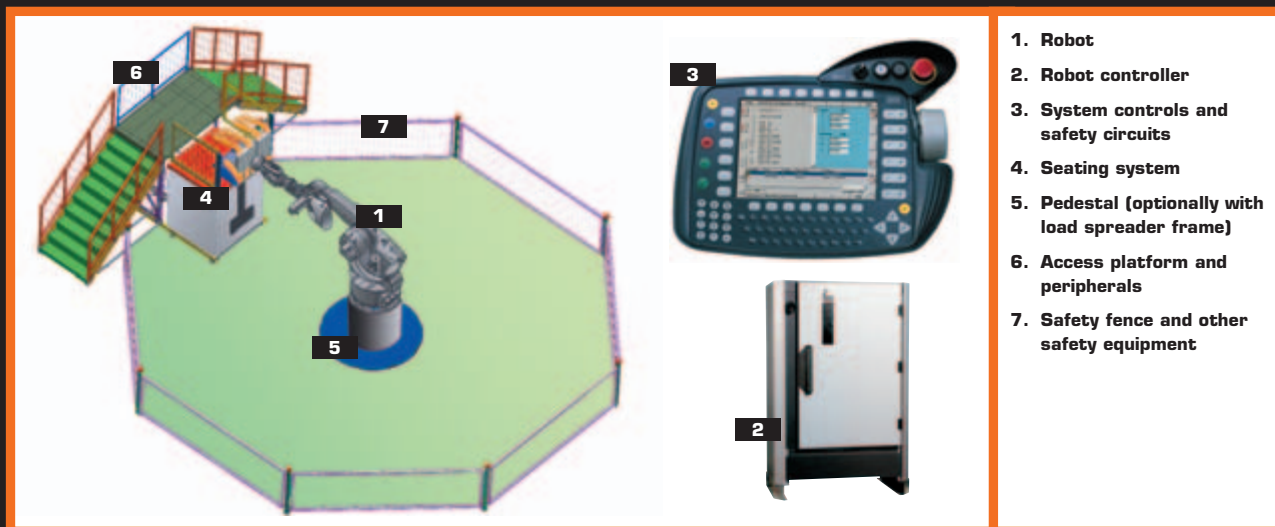
The KUKA World Support Center is there to support you with your project, from the planning phase through to unveiling. Even beyond this you are in good hands: KUKA Service will take care of your programming and maintenance needs, provide immediate assistance, and is on hand at all times via the hotline. In the event of a problem, spare parts are also available at short notice.



Some like it hot – some prefer fun and surprises, while others go for lively and enjoyable. The special feature of the Robocoaster is that it has something for everyone: the passengers themselves can choose one of five programs. Then, of course, you also have the option of offering customized ride fun: the Robocoaster motions can be freely programmed.

10 Robocoasters in formation flight: What sounds like a program from the realms of fantasy has become reality at LEGOLAND, Billund (Denmark) and at LEGOLAND Günzburg (Germany): Robocoasters combined with a fantastic color laser show help you to forget about the cares of the world.

SPECIFICATIONS



1. Robot
2. Robot controller
3. System controls and safety circuits
4. Seating system
5. Pedestal (optionally with load spreader frame)
6. Access platform and peripherals
7. Safety fence and other safety equipment

SYSTEM

- Aluminum structure for low inertia
- Maintenance-free brushless AC drives
- IP65 rating
- Width 11,200 mm
- Height 6,750 mm
- Weight:
 - Robot 2,350 kg
 - Gondola 235 kg
 - Pedestal with base plate 1,150 kg
 - Platform with stairs and railings 1,420 kg
 - Fencing 500 kg
- Maximum speed up to 4.9 m/s
- Microsoft Windows operating system
- Internet connectivity
- 8" color VGA display
- Comprehensive integrated diagnostic functions
- Optional music output capability
- User-selectable language
- Integrated system control sequencer

PERIPHERALS

- Integrated powered access platform
- Integrated safety fence and other safety equipment
- System control and operator panels
- Selectable ride profiles (5 standard)
- Robot pedestal
- Optional load spreader frame

CAPACITY

- Programmable ride sequence and duration
- Max. double passenger distributed weight 200 kg

POWER

- 400 V/50 Hz three-phase current (other options available on request)
- 13.5 kVA

www.ROBOCOASTER.com

KUKA Roboter GmbH
 Global Sales Center
 Hery-Park 3000
 D-86368 Gersthofen
 Tel.: +49(0)821/45 33-0
 Fax: +49(0)821/45 33-1616
 robocoaster@kuka-roboter.de
 www.kuka.com

KUKA
 WORKING IDEAS