

designer

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BOORIA ROBOTUFT



Robotuft

Booria Robotuft

New horizon in tufted area rugs production

■ CDA 2009

Werner Weber and Heidarian Carpet the winners of Booria special prize

■ Booria NEWS

Now Booria products in more than 30 countries

■ Carpet Weaver

How to eliminate undesired carpet back effects

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The Designer Team

Managing Director - Farzin Hariri

fhariri@booria.com

Graphic Designer -Azadeh Rahatlou

arahatlou@booria.com

Managing Editor - Gholamreza Salamati

psalamati@booria.com

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Booria CAD/CAM Systems

2nd floor, No. 43, Khoramshahr St.,

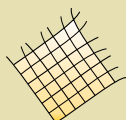
Tehran, Iran.

Tel.: (+98 21) 88739073, 88739048

Fax: (+98 21) 88769036

Web: www.booria.com

Email: info@booria.com



Booria
CAD/CAM Systems

Designed to lead



Farzin Hariri

editorial

Our readers always expects to read new products news and innovation stories from us in the designer newsletter, and now I would like to proudly present our new and totally different product for carpet industry, **Robotuft**. It's time to proudly present this great achievement of Booria to our respected customers and readers.

Robotuft, a high-tech robot to produce hand-tufted carpets, has been developed by Booria R&D team and built to respond to your production running and also sampling. This robotic machine passed through various phases to completely comply with carpet manufactures' needs. It is also utilized with Booria professional and unique design software. This integrated hardware and software solution forms a comprehensive, fully functional and interactive product.

To develop such a product Booria performed a comprehensive market survey to find the trend to such a product. Afterwards, considered the peer products deficiencies to overcome first. In result, **Booria Carpet Designer, Robotuft Edition** was officially presented to market in Domotex 2008. Due to vector designing restrictions and the lack of well developed designing software, Booria as an experi-

enced software developer, first decided to solve this major problem. And the result was impressive. Robot tufted rug producers welcomed this software product eagerly and it was globally noticed. Following this achievement and removing the obstacles in our strand, we accelerated hardware development and now after several tests on quality and functionality, this high tech robot has been officially presented to the market.

To have more competencies in comparison with our peer competitors besides the software product which is definitely our winning card, our technical team did some great tasks to develop a robot with none of the peer products deficiencies both mechanical and electrical. Now Booria CAD/CAM Systems as a producer of designed to lead products proudly announces a completely unique **Robotuft** package. This product targeted many countries, especially those active in carpet manufacturing around the world.

Now Booria products cover all major carpet production sectors in the best manner. Hand-made, Machine-made and now tufted carpet production are supported by advanced Booria CAD/CAM products.

What's up

Booria Hosts You in Turkey

After great success of Booria products in Turkish market, Booria decided to open its office in Istanbul. Booria office opened on April 2008 officially and up to now, we tried hard to serve our Turkish and International customers as best as possible. Faster response to customers' inquiries, providing efficient after sales services and supports, handling international customers more smoothly and more direct feedback from Turkish customers are the major reasons of this activity.

To have more information about our activity in Turkey and our local office services please get in touch with:

Mr. Onur Akagunduz
Turkey Sales Manager
Booria B.D.T.S - Turkey
Tel: (+90 212) 366 02 16

Booria is proud to announce just in a few month, besides its great sales to existing markets, its products have been exported to 6 more countries which the numbers of countries Booria products have been exported to pass 30. Booria products specially Booria Carpet Designer can fulfill all the requirements of carpet producers in different type of carpet production. So all carpet producers regardless to how produce carpets; machine made, handmade or tufting, they can utilize Booria products. This comprehensiveness expands its market and let Booria to enter new markets rapidly. Belgium, Sweden, Netherland, Austria, Greek and Malaysia are new countries which Booria products have been installed and utilized by robot tufted area rug, machine made and handmade carpet producers respectively. This achievement indicates specifications of Booria products and features are in, for many carpet producers around the world with different requirements and needs.



Installed in more than **30** countries

Booria Products Have Been Installed in More Than Thirty Countries

New Generation of Booria Robotuft has been produced

Booria CAD/CAM Systems developed its new generation of its hand-tuft Robot, **Booria Robotuft**. The new generation has dominant advantages in comparison to old ones. New structure, **ability to tuft in cut pile and loop without stoppage** and ability to produce tufted carpet and area rug with very coarse yarn are the main new capabilities of the new series.

- **Booria** and **Rose+ Krieger**, German Manufacturer of aluminum profiles, lifting devices, linear positioning components, signed an agreement for constructing new structure of **Booria Robotuft** with German quality and European standards. From now on **Booria Robotuft** structure will be built in Germany to guaranty the structure quality for Booria customers and robot users. More rigidity and higher production speed are two major incomes of Robot structural improvements.

- Forming cut pile and loop is the main inquiry of the tufted area rug producers. This capability will enable the producers to produce more modern and fashionable carpets and area rugs. To obtain such an effect developed new **automatic cut and loop switching system** without any mechanical settings or machine stoppages. Pile type is defined in the software and robot will tuft the selected pile type automatically.

- Ability to produce tufted area rugs and carpet with very coarse yarn is the next capability. Producing shaggy carpets with 11mm thickness and 75mm pile height in J pile format is now achievable.



new product

Booria Robotuft- Handtuft Robot

New horizon in tufted area rugs production

Booria Robotuft is an advanced robotic machine for producing tufted area rugs. This robot has designed and produced by Booria R&D team and prepared for intense carpet production market. **Robotuft** increase your production rate significantly, compares to manual method, and also handles your sampling. Booria bundles its well known advanced carpet design program, **Booria Carpet Designer Robotuft Edition** with **Robotuft**. By using this powerful design tool and due to capabilities of **Robotuft**, one can produce different type of tufted area rugs easily and just in time. Producers can produce carpet base on customers' orders in cut pile or loop pile and accept even one single carpet production.

They also can produce single carpet to evaluate market for design and color and then make decision whether to produce in large quantities or not?

Booria Robotuft is a cost-effective product that eliminates production risks and keeps carpet producers a step ahead of peer competitors. The tangible benefits of the robot are as follow:



Increase in production speed

With Booria Robotuft the production rate reaching up to 6.5 square meters per hour depending on row distance, density and yarn type. Due to tufting head characteristics and control unit capabilities you can increase your tufting speed while keeping the tufting accuracy and producing even complicated designs. Production speed depends on two parameters: row distance and density. Base on these two main parameters, different production time can be attained (from 1.3 sqm/h up to 6 sqm/h). Also by using advanced yarn feeding and cutting system the machine stoppage time is minimal. All this factors lead to enormous production rate increment comparing to manual method. And due to competitive price of Robotuft in comparison with other solutions and the deduced production and efficiency, the return of investment will be less than a year.



This heavy duty Robot handles your production running and also sampling



Reduce in production costs

Advanced technologies always lead to labors reduction. Two or three workers can be replaced with Robotuft and due to smooth production and minimum stoppages; one worker can control at least two or three robots simultaneously. With Robotuft your labor cost and struggles will be reduced and reach to its minimum level. Also all human mistakes and errors will be eliminated from your production and final product completely.

Brings design versatility

Robotuft has been accompanied by well known advanced carpet design program, Booria Carpet Designer. With utilizing this powerful design tool and due to capabilities of Robotuft, you can produce different type of tufted area rugs easily and just in time change your designs. With special function of Booria Carpet Designer which specially developed for Robotuft, designs with different complexities easily can be created in pixel format and changed to vector for tufting on Robotuft. It is better to say, you are a few hours away from design concepts to tufted carpet by Booria Carpet Designer, software and Robotuft.

Decrease innovation and production risks

Ability to produce on demand or sample production is one of the main advantages of Robotuft. With this advanced technology you can produce even one tufted area rug to evaluate the market. Then after evaluation, new product in large quantities can capture the market. This important task can be done due to low cost and stoppage time for yarn replacement, creating new design, robot set up and high production speed. No need to stop your robot for long to apply new settings and do replacements.

Wide range of yarns and colors

As colors, design and creativity matters in producing fashionable carpets and rugs, producers can easily use different type of yarns and colors to create wonderful final product. Wool, cotton, viscose, acrylic, polyester and PP can be used separately or together. Different yarn types with different technical characteristics can be used in production. There is no limitation on yarn counts. From fine to coarse yarns can be easily tufted with this robot. To create artistic effects producers can blend different types of yarns together, for example coarse wool and fine cotton. There is also no limit on number of colors like machine made carpet production. Playing with colors and changing colors without any difficulties is one of the main advantages of this type of production.

Some Technical Specification

The pneumatic head for tufting gun enables the robot to run smoothly and tuft the pile yarns inside the backing fabric in different forms easily. Advanced yarn cutting and feeding systems guaranty smooth production even without human control. Most of suitable yarn types for fashionable tufted carpet production can be tufted with this tufting gun specially without any mechanical settings. The rotating needle instead of rotating tufting gun enables robot to create better corner effects and increase your production speed. The automatic pile type switches can be done without

any machine stoppages. **Machine can produce carpet in cut pile or loop pile or both in a same design without any stoppages for mechanical settings.**

Producing different pile and loop height in a same design is the other advantage of this technology. The following pile and loop height can be tufted:

- U-tuft cut pile heights; 15-65 mm
- J-tuft cut pile heights; 40-100 mm
- Loop pile heights; 9-60 mm

Special Design Software

Advanced and handy software supports Robotuft and let the designers prepare designs for tufting without any boundaries. Due to vector based characteristics of the robots, carpet designers were not enabled to design freely. With this revolutionary **Raster to Vector Conversion Solution** which comes with important features and functions designers can easily create various designs. Respect to this function, designers can freely create their masterpieces with Booria Carpet Designer (which is pixel based software). After design preparation by using Robotuft function of design software the design converted to vector based file and become ready to tuft on robot. This special function also calculates, suggests and previews the best path for tufting head to move. This will eliminate the unnecessary tufting head lifts and travel distances to decrease your production time. With the integrated solution devel-



oped by Booria, you can just in few hours, form your idea and have your final product.

All these benefits next to easy installation and controllable production make Robotuft completely suitable for producers and entrepreneurs, who have great ideas in their mind and want to implement them with low risks and costs, in a secure way. ■



Robotuft Movie

To become more acquainted with **Robotuft** please visit the following link to download the related video:

<http://www.booria.com/download-movies.htm>

cda 2009 report

Werner Weber and Heidarian Carpet the Winners

Rewarding quality and innovative design in handmade carpets



Booria Special prize, Booria Carpet Designer, Standard Edition this year awarded to two winners from Switzerland and Iran. Mr. Farzin Hairi presented these specials to general managers of these two creative rug companies.

Many well known faces in hand made carpet from all around the globe gathered in hall 15 to find out who will win the prizes in different categories. And finally 10 winners out of 30 nominees in 10 categories introduced in superb ceremony. Zollanavri Carpet, currently utilizing 13 licenses of Booria Carpet Designer, won 3 trophies in 3 categories specifically Best Innovation. Heidarian Carpet, also Booria Carpet Designer user, won totally 2 trophies. 6 out of 10 trophies went to Iran and the other winners were from Germany, Turkey, Switzerland and Canada.

After two successful **CDA** sponsorships by Booria, Booria as a first sponsor of this completely well known event in hand made carpet industry, always tries to show its commitment toward design and innovations in carpet design. **CDA 2009** this year like the previous year took place under the umbrella of **Domotex** Hannover with cooperation of **Hali** and **Modern Carpet** publications and **Booria CAD/CAM Systems** Sponsorship.

This year saw 140 carpets from 18 countries entered for the Carpet Design Awards. A panel of experienced and well known judges selected thirty carpets for a shortlist of finalists, allocating three carpets to each of the competition's ten categories (and the eleventh category was visitors' choice).

The winners were announced at the award presentation by Stephan Ph. Kühne, Member of the Board at Deutsche Messe AG, and Sebastian Ghandchi, Managing Director of Hali Publications.



The prize winners are as follow:

- Best Modern Design in the price range under 100 euros/square meter:

Company: Zollanvari AG, Deco Gabbeh 197 x 246 cm

Comment: Beautiful colour, design and modernity great architectural balance dynamic and harmonious



- Best Modern Design in the price range 100 euros/square meter to 250 euros/square meter

Company: Zollanvari AG, Broken Waves 168 x 228 cm

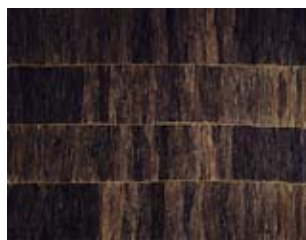
Comment: Very easy to place and sell beautiful colour, design and quality



- Best Modern Design over 250 euros/square meter:

Company: Werner Weber, Noor 222 x 281 cm

Comment: The chromatic combination is fantastic to create this kind of movement is not easy it's wonderful!



- Best Traditional Nomadic Design in the price range under 150 euros/square meter

Company: Heidarian Carpet, Set-areh 128 x 226 cm

Comment: The clear winner the nomadic tradition is truly expressed in the diamonds well controlled color and exceptionally woven



- Best Traditional Nomadic Design over 150 euros/square meter

Company: Aghamiri Persian Rugs, Tacheh: Bakhtiari 115 x 145 cm

Comment: A beautiful interpretation of a truly traditional nomadic design the quality is incredible!



- Best Traditional Workshop/Formal Design

Company: Heidarian Carpet, Sarvy 214 x 277 cm

Comment: Wonderful movement very well drawn and balanced they have gone a step further..



- Best Old/ Antique Carpet

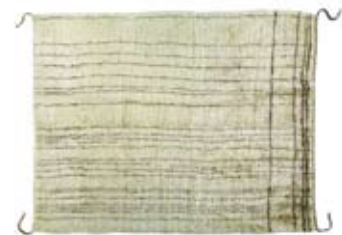
Company: Bereket Hali, Tulu
Comment: The genuine thing and very rare a real old Tulu full of charm and character with even the old restorations intact



- Best Collection Modern
Company: Zoe Luvendijk Studio, Inc., City Collection 244 x 305 cm
Comment: They work as real rugs a lot of subtlety and visual texture beautiful variety of colour



- Best Collection Traditional
Company: Jan Kath Design GmbH, Le Maroc Blanc: Matrix 230 x 300cm
Comment: A sensitive, innovative and cohesive collection it is hard to successfully reproduce this simplicity, beautiful wool and texture...



- Best Innovation
Company: Zollanvari AG, Pointilism 245 x 330 cm
Comment: A wonderful innovation a total eye catcher it's fantastic!



- Best liked by DOMOTEX visitors 2009
Company: Jan Kath Design GmbH (Hall 3, Stand B42), "Le Maroc Blanc: Matrix", 230 x 300 cm



carpet know-how

No More Undesired Carpet Back Effect

How to solve undesired carpet back effects in $1/2V > 1/1 V$ (Radio 2) weaving?

In $1/2V > 1/1 V$ (Radio 2) weaving technique carpet producers usually encounter with a common problem; “**dirty and unclear**” carpet **back**. This fault and undesired effect is more dominant in carpets with cross planting technique. Because the problem gets a banding effect due to cross planting process. **Booria Carpet Weaver** is a flexible, powerful and user-friendly tool which enables you as professional producer to control the brain of your loom, Jacquard. By utilizing this software not only you can do your normal tasks like file conversion and creating normal weave sets but you also do more and wonderful tasks like filter and special weave set creation. Here in this article we will show you how one can eliminate the dirty and unclear carpet back specially the banding effect of cross planting technique by creating and using special weave set with ground weave.

Why the problem happens?

Due to nature of $1/2V > 1/1 V$ (Radio 2) weaving cycle and having dead pile yarns, problems like; dirty back, dead loops on back and etc happens. Also in cross planting technique, one color position could be replaced with different new colors, in band form. If user uses new dark colors, the banding effect will become more dominant on the back. So to solve these problems you just need to float the incorporated yarns on the face of the carpet. You can also find more advantages for this method. Advantages like increasing size penetration rate which lead to more pile yarns stickiness, prevention of dead pile breakage due to possible yarn twists, besides creating better and cleaner back of the

carpet. To do this easy but important task you just need to do some clicks on which Booria Carpet Weaver software.

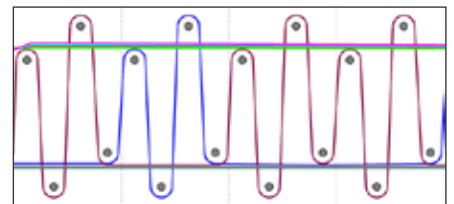
How to fix the problem?

Booria Carpet Weaver enables you to automatically respect to machine definitions like number of colors positions in creel, number of rapiers, Jacquard type, double pile support and etc create your own weave set. Now for applying changes regard to your special task, you only need to edit your weaves. One of the advantages of Booria Carpet Weaver is enabling users to apply these changes for each pile yarn selectively with Booria special function called “Ground Weave”. So with this special function user can also float pile yarns or all regard to weaving requirements. User also can create, load or save a ground weave like Satin to control dead piles movements. Through Booria Carpet Weaver you have control on each separate dent line. Booria Carpet Weaver graphical environment and 2D & 3D cross section feature help users to simply create these new advanced weave sets and view the final result of the carpet before production to help users eliminate their probable mistakes and decrease number of faults.

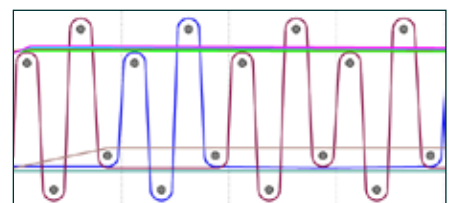
It is obvious that, after applying new created weave set the problem completely eliminated. You can also find out banding effects due to cross planting technique on the edge of carpet which totally eliminated on the back. So with Booria Carpet Weaver users can control the commanding unit of the loom which leads to control the pile yarn movements. With controlling the pile yarn movements you can easily eliminate all weaving defects and even create new desired weaving effects. ■



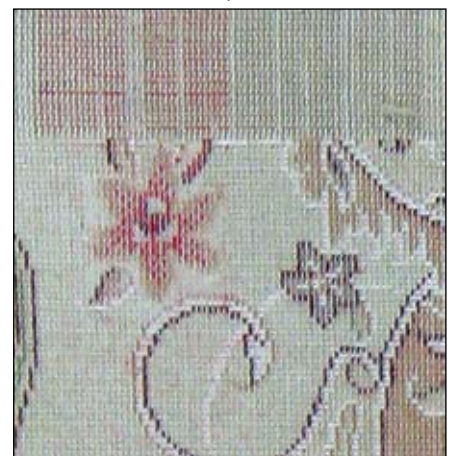
Before processing; With banding effect on the back



Incorporated piles forming the unclear back; Cross section Created by Booria Carpet Weaver



Effective incorporated pile moved to the face of the carpet; cross section created by Booria Carpet Weaver

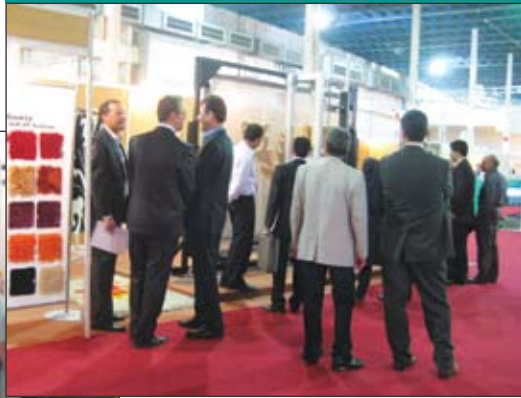
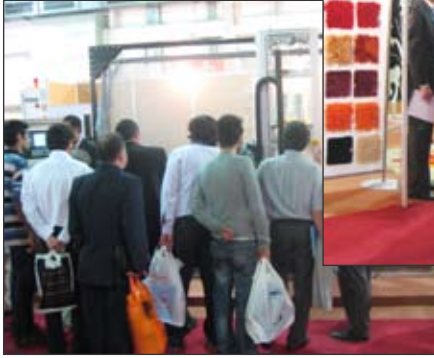


After processing; Banding form is obvious on cutting edge but not on the back

past events

Tehran International Textile Fair

18-21 October 2008



14th International textile exhibition in Tehran, the biggest textile event in Iran was opened on October 18th in 5 halls. Booria CAD\CAM systems like other internationally well known exhibition participated to present a new product. This eye catching product which was welcomed by all visitors was Booria new Robot. Booria Robotuft presented to all trade visitors during the show. "We are always in important local and international exhibitions presenting a new product and this mobility is our company's key to success", said Mr. Farzin Hariri during the unveiling ceremony of Booria Robotuft. This Robot prepared for international market considering international market standards and qualities.

"Booria hopes to present this new product as good as it gets in Middle East market which definitely is the source of all types of carpets and rugs", said Mr. Hariri. Carpet and yarn producers, entrepreneurs and textile engineers and experts formed the major visitors of this product and showed their interest toward it. In addition to Robotuft, Booria also presented its software solutions for different textile segments in its 70 square meter stands. Software solutions for carpet, fabric and clothing

industries were the products which have been introduced to local industry. Booria complete ranges of products in CAD\CAM section always attract all the managers and experts in textile industry. Throughout the show many decision makers which seeking for CAD products in different production sections like; design, planning and production visited Booria stand and its complete range of products. Booria Carpet Designer, Booria Carpet Weaver, Booria Carpet Studio, Booria Carpet Archiver, Booria Loom Controller and more were the solutions which presented on other presentation units to customers. "This event was generally a success for Booria and I am sure it is reinforced Booria position in local market and subsequently help us to enter International market more powerful." said Mr. Farzin Hariri. Registering hundreds of visitors during 4 day event was a success for Booria and shows Booria position and the importance of CAD\CAM solutions among textile decision makers, managers and experts.

Booria hopes to present this Handtuft Robot as good as it gets in Middle East market which definitely is the source of all types of carpets and rugs

22-28 August 2008

17th Persian Carpet Grand Exhibition, the biggest traditional handmade carpet exhibition in Middle East was a successful event for Booria. Booria like other previous years participates this internationally well known event and presented its related products to many handmade carpet managers, designers and experts.

Due to signed agreement between Booria and International Carpet Center (Iran handmade carpet policy maker) to promote handmade producers' capabilities and knowledge, this year exhibition was completely different.

Due to this agreement, many small to medium sized handmade carpet producers visited Booria advanced products and decided to use this opportunity to improve their products in design and quality by utilizing Booria professional solutions.

Booria as a sole CAD producer for handmade carpet industry in Iran and as one of the leading CAD\CAM developers around the worlds always welcome the opportunities which can lead to production and knowledge development amongst the carpet producers.

17th Persian Carpet Grand Exhibition



Domotex 2009, New Record in Booria Domotex Visitors

Domotex 2009, the fifth successive participation of Booria CAD/CAM Systems, registered new record in number of Booria stand visitors.

Despite worldwide economic crises, which affect this famous floor covering event in both visitors and exhibitors specially in carpet section, Booria registered new record in its stand visitors. "Robotuft new product of Booria, attracted more visitors than we expected" said Mr. Hariri, General Manager.

This Domotex showed, market is always ready for innovations and new products

Robotuft, robotic machine for producing hand tufted carpets and rugs for the first time presented to visitors in Domotex 2009. "It was our pleasure to present new products to visitors in each Domotex. But this time our new product was totally different and completely attractive to tufted carpet and rug producers" said Mr. Hariri. Senior carpet producers next to new one and entrepreneurs all were interested in this advanced robot.

Easy installation next to simple working conditions, production flexibility and cost effectiveness all the major factors to be convinced to use this advanced robot for production. "The most important factor for these types of robot is how to create designs and transfer to robot. And with Booria Carpet Designer we can do this important task easily. Create designs with different tools and functions easily and then convert them to robot file formats. This is why robot made tufted carpet producers currently switching to



17-20 January 2009

DOMOTEX

our design solution." said him. The great bundle; robot, design software and Human Machine Interface make the robot incomparable. Ability to produce; different qualities with different yarn types and yarn count, pile and loop forms, different pile heights all without any specific mechanical settings are the winning cards of the Robotuft compare to peer robots.

The third sponsorship of **Carpet Design Awards (CDA 2009)** again had impressive role in attracting handmade carpet producers into Booria stand. "As our stand far away from handmade halls but always we have eager visitors from handmade carpet section." said him. Handmade carpet producers from USA, Canada, Germany, Turkey, Iran, Pakistan and Afghanistan were looking for new design and marketing solutions in Booria stand. Ability to prepare all types of carpet design regardless to its complexity or simplicity as best as possible and create final prints out is what all handmade carpet producers were interested in.

"This Domotex showed, market is always ready for innovations and new products even in severe economic conditions. And now Booria are preparing to participate next Domotex as good as it can from now on".

The great bundle; robot, design software and Human Machine Interface make the robot incomparable

