



TRANSMITTER DESIGN COMPETITION



Summary

New product design contest on Desall.com: AUTEK and Desall invite you to design a new portable wireless remote control for machines and hydraulic cranes.

Official contest page: <http://bit.ly/TransmitterDesign>

Company Description

AUTEK is a leading manufacturer of wireless control devices, with certified safety functions, used to remotely control self-propelled or fixed position operating machines for buildings, steel industry, maintenance and logistics in general. The headquarters for development and production is Vicenza, 100 km from the Venice airport hub, while the group's companies for technical, logistics and commercial support are based in Germany, Spain, Korea, China, North America and Brazil. AUTEK creates "Made in Italy" products, integrating the management of business processes, in particular design and production, guided by the values of reliability, robustness and safety.

What we are looking for

AUTEK is looking for a new **portable wireless remote control** that may be used **one-handed**, for the control and handling of various self-propelled machines, truck-mounted hydraulic cranes or similar machines for lifting loads (for more information take a look at the *Material files*), used in construction and other working site areas by specialised personnel.

Guidelines

For the correct realisation of your proposals, keep into consideration the following guidelines:

Product typology: you are invited to design a **new portable wireless remote control**, with great attention to **design** and **ergonomics**, suitable for **one-handed use** in its primary functions and **capable of standing out from the competition** for its style and usability. You can find some examples of products available on the market in the *Material files* attached. Given the context of use, the remote control shall be **dust tight and resistant to water projected from a nozzle** (IP65 certification).

Main functions of the remote control: the remote control shall enable the **selection of the movement** that the machine will perform and the proportional **adjustment of the movement speed**. In particular the main functions are:

- **Arm rotation**, around the vertical axis of the base;
- **Hook lifting**, that is the movement of the hook upwards and downwards;



- **Extension/retraction** of the hydraulic arm;
- **Move upwards/downwards**, that is the adjustment of the movement of the arm upwards or downwards.

Actuators: in order to perform the commands described above, the portable wireless remote control shall be equipped with the following actuators:

- For the selection of the movements:
 - **Toggle switches** or **three-position buttons** (up, centre, down), for a maximum of 8 elements;
Or, in alternative:
 - **2 mini-joysticks** (actionable in the four directions) in combination with **toggle switches** or **three-position buttons** (up, centre, down), for a maximum of 4 toggle switches or buttons.
- **1 trigger**, aimed at adjusting the speed of the movement in a proportional way;
- **1 red button to STOP** the machine in case of emergency.

For a bird-eye view on the actuators and elements currently used by AUTECH you are invited to take a look at the catalogue available on the website: <https://www.autecsafty.com/>; you are nevertheless **free to explore alternative solutions** as long as they provide better ergonomics and usability.

Other elements of the remote control:

- **Background panel with dedicated space for icons**, customisable depending on the actuators installed and on the functions that the remote control is meant to perform;
- **1,8" LCD display**, that will show for ex. information about the selected movement, the battery status, etc;
- **Batteries/battery pack**, which shall be rechargeable and removable (accordingly, include also a battery cover accessible from the outside). The volume of the batteries/battery pack shall be about 35x50x12mm, that is 3 AAA batteries;
- **Quick release hooking system** to put the remote control away or to be temporarily worn by the operator (you can suggest the use of a carabiner, a magnet to fix it on the machine metal parts, etc.);
- **Safety guard:** all actuators shall be protected by a safety guard element and shall not protrude from this element, to prevent the accidental activation of a command (see *Material files*).

At your discretion, you are also invited to propose the design of a *Docking station* for recharging and hosting the portable wireless remote control.

How to use: the portable wireless remote control shall be intuitive and easy to use for the activation and handling of the movements and shall also be usable **one-handed** (either right or left hand) and with **protective gloves**. When not in use, the remote control might be temporarily fixed on the machine or worn by the operator, through the quick release hooking mechanism. You may also think of a way to let the remote control stand when placed on a surface (through its shape, using a docking station, etc.).

Size and shapes: the remote control shall have a **maximum size of 200x100x100mm**. Based on your project idea, suggest **ergonomic** and **functional shapes** to enable the operator to activate the main functions even one-handed. In this regard, it is of the utmost importance that you attentively consider how to position the actuators and the other elements.

Materials: the allowed materials for the portable wireless remote control are **plastics (PA6) and rubber**. Metals or other electrically conductive materials are forbidden.

Production technologies: design your project with a view to its industrialisation, minimising the number of components required and keeping into consideration that it will be realised through injection moulding processes.

Style: the **style** of your portable remote control shall **comply with the brand catalogue**, with a special attention to the usability and ease of use. For the colours, you are invited to use **yellow** and **black** for the plastic components and **black** for the parts made of rubber, if any. At your discretion, you may suggest various surface finishes, as long as they do not foster the formation and accumulation of dirt.

Logo: include in your project the AUTEK logo, provided in the *Material files*.

Deliverables: upload all the images that better present your projects (rendering, descriptions, etc.) preferably attaching also the 3D files in STEP or IGES format, inside a .ZIP archive, containing possible extra materials.

Evaluation criteria: in the evaluation of your submissions AUTEK will take into account the following criteria:

Degree of innovation (5/5)

Functionality/Usability (5/5)

Technical feasibility (4/5)



Compliance with the brand (4/5)

Aesthetics (4/5)

Language: since we are an international Community, all texts provided with your uploads (abstract, description, tags, etc.) should be written in English.

Contest timeline

Upload phase: 30th May 2019 – 10th September 2019 (1.59 PM UTC)

Client Vote: from 10th September 2019

Winner announcement: approximately before the end of November 2019

Optional deadlines

Concept revision: 19th July 2019 (1.59 PM UTC)

Concept revision: deadline for requiring an optional revision of your project by the Desall team. In order to request a revision, upload your project, include the description project and save it as draft (SAVE DRAFT) from the upload page and send your request to the Desall Team via e-mail or through the contact form. **The revision is NOT mandatory:** it serves only as a further opportunity for the participants but does not constitute a condition for participation, nor does it constitute any advantage in the final evaluation.

Eligibility and submission

Participation is free of charge and open to designers and creative talents of any nationality aged 18 years or older. Participants can present one or more projects, but only the projects published on the www.desall.com web site, via the upload page related to “Transmitter Design Competition” will be accepted.

Award

1°: €5000

The selection of the winner by AUTECH will be the result of an unquestionable evaluation and it will take into account originality, feasibility and consistency with the brief presented.



Option right

For the duration of the option right, the Sponsor offers an extra chance to all participants setting a fee of Euro 2,500.00= (two-thousand-five-hundred/00) for the purchase of the license for the economical exploitation of the projects not-acknowledged as the winning proposals.

For more info, please login and read the [Contest Agreement](#) from the upload page. For questions about the brief please use the “Have a question” button or write to contest@desall.com.



Submission Guidelines

Project images: the first image attached from the upload page will also be used as the preview of the project in the gallery. In order to better present your project and draw the attention of the sponsor, we suggest you to choose a content that provides an overall idea of the whole project in one single image, briefly including all the contents that will be further presented in the following images.

We also suggest you to use all five image slots available from the upload page of the contest and - where possible - to present several views of the project giving also an indication of the main dimensions of the product.

For product design contests in particular, we suggest you to include at least one image with your project on neutral background and no writings.

For the rendering and presentation of your project, the use of copyrighted images, even if slightly edited, is prohibited.

In case of using materials owned by third parties (ex. stock images, stock videos, texts, etc.), make sure you are granted all the licenses needed for participating in the contest, as further specified in the Contest Agreement.

In case of submitting multiple projects or concepts, you have to repeat the upload procedure for each project: do not submit multiple projects with a single submission.

You are required to upload at least 1 image; image ratio: preferably 4:3; allowed file formats: .jpg, .gif or .png; colour mode: RGB; maximum file size: 1MB.

Descriptions: we suggest you to use the appropriate fields, “Abstract” and “Description”, to include all textual information about your project. We discourage you to include textual description inside your images, as they might result difficult to read (at all events, we suggest you to include at least one image - if possible - with your project on neutral background and no writing). In the “Abstract” field you have maximum 500 characters to include a short summary of your project while in the “Description” field you can include all the remaining information.

Additional material: in addition to the project images, you are invited to attach further materials in a .ZIP archive (NO other file extensions are allowed, such as .RAR) through the “Archive File” field on the upload page. Among the various materials, you may include CAD files, PDF with further descriptions on the project, photos of any models or prototypes, high-resolution images of the project images and 3D files (preferably in .stp or .igs format - you may also include a PDF 3D file for a rapid visualisation). The maximum size of the .ZIP archive is 100MB. You may also attach a video presenting your project through the “Video File” field from the upload page, including it inside a .ZIP archive with a maximum size of 50MB.

Concept revision: revision of your project by the Desall team. In order to request a revision, upload your project including the description and save it as draft (SAVE DRAFT) from the upload page and send your request to the Desall Team via e-mail or through the contact form. The revision is NOT mandatory: it serves only as a further opportunity for the participants but does not constitute a condition for participation, nor does it constitute any advantage in the final evaluation.

Hidden option: only in case of public gallery contests, you can submit your project with “hidden” design privacy option, provided that you submit your project within the first half of the upload phase. By doing so, your project will remain hidden for all other users until the opening of the Community Vote, if any. At all events, your project will always be visible for the Sponsor regardless of the submission date. This option is automatically disabled once the first half of the upload phase has expired: you can find the deadline for activating this option in the Optional deadlines paragraph inside the brief.

You can find further instructions on how to create your account, how to submit your project and other information in the [Tutorials](#) and in the [FAQ](#) sections.