



Transmitter Modular Challenge

Summary

New product design contest on Desall.com: AUTEK and Desall invite you to design a new concept of portable modular transmitting unit.

Official contest page: <https://bit.ly/TransmitterChallenge>

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 concept of **transmitting unit** characterised by a **modular system**, that enables the company to customise the remote controls based on their clients' needs, with a view to offering a custom-solution for the control and handling of small size self-propelled machines, lifting machines or similar, to be used either in industrial environments or in environments for civil use.

Guidelines

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

Product typology: the new **wireless transmitting unit** shall be a **professional product, portable, handheld, used with one hand only (right or left), with or without protective gloves, customisable with various modules**, for a minimum of 4 buttons and a maximum of 10 buttons in total.

Modular system: the most distinctive and significant trait of the new transmitting unit will be the ability to offer **various configurations**, thanks to a **clasp system** between **complementary modules**. The system you propose shall take into account the suggested configurations and the need to be **dust tight and resistant to water projected from a nozzle** (IP65 certification), in any moment. The modules will not be assembled by the final client or by the operator that uses the device, rather they will be delivered to the client ready-to-use.



MODULES

The system will offer the following module typologies that can be combined with one another:

- 1) **Basic module**, provided in all configurations, it shall have an **approximate size of 65x80x15 mm** and shall include:
 - **4 buttons** (see *Buttons* paragraph for more info)
 - **4 label areas** (see *Label areas* paragraph for more info)
 - **6 LEDs**, arranged on 1 or 2 rows and placed on the frontal surface of the case
 - **battery compartment**: with a hatch, to reach 3 AAA alkaline batteries (easily replaceable) or 1 non-replaceable long-life battery
 - **clasp system with connectors for the modules coupling**: you are free to suggest the mechanism or technology that best serve the purpose and you are invited to describe in detail the clasp system between modules.

- 2) **Buttons module**, it shall have an **approximate size of 30x80x15 mm** and shall include:
 - **2 buttons** (see *Buttons* paragraph for more info)
 - **2 label areas** (see *Label areas* paragraph for more info)
 - **clasp system with connectors for the modules coupling** (see above)

- 3) **1,8" display module**, it shall have an **approximate size of 30x80x15 mm** and shall include:
 - a 1,8 inch **display**, to be installed with landscape orientation
 - **clasp system with connectors for the modules coupling** (see above)

- 4) **e-STOP button module**, consisting of:
 - **e-STOP button**, red, easily accessible, with an approximate diameter of 25 mm (for more info see other products by AUTECH on their catalogue)
 - **clasp system with connectors for the modules coupling** (see above)

- 5) **"Service" module**, it might either be integrated in the basic module or be an independent module. It will consist of:
 - **connector**, to allow cable connection for powering the unit, connecting it to the network or for other diagnostics, maintenance or service operations (for ex. RJ45 connector);
 - **clasp system with connectors for the modules coupling** (see above)



OTHER ELEMENTS

- **Buttons:** the buttons shall have a “squircle” shape, with a **minimum operating area of 18x18 mm** and shall be **arranged in pairs, one next to the other**. The approximate distance between two buttons (minimum operating area) shall be 10 mm. Depending on the configuration (“Basic module” only or “Basic module” plus one or more “Buttons modules”), the transmitting unit might have from 4 to 10 buttons in total. The **buttons shall be protected** by a safety guard element (integrated in the case of the module or consisting of a separate element) to **prevent any accidental pressure**. The buttons might be **customised with the icon** of the relevant command.
- **Label area:** each command shall have a corresponding description in a dedicated area on the surface of the cover near the button. Alternatively, you may suggest the use of a **panel for each module** where all the icons/descriptions of the transmitting unit are to be depicted.
- **String:** every unit shall be equipped with a **string**, to enable the operator to fasten it to the **wrist**, against accidental falls. At your discretion the way the string is attached to the module.
- **Docking station** (Optional/Nice to have): at your discretion, the possibility to design a support base to install/use even inside lorries cabs, cars, boats, to safely store the modular transmitting unit (while not in use). The docking station shall NOT have charging functionalities (as the batteries will not be rechargeable).

CONFIGURATIONS: for the purpose of the contest, you are invited to show your transmitting unit in at least the following **two configurations**:

1) **BASIC CONFIGURATION**, consisting of:

a) 1 x **Basic module**

2) **COMPLETE CONFIGURATION**, consisting of:

a) 1 x **Basic module**

b) 3 x **Buttons module**

c) 1 x **1,8” display module**

d) 1 x **e-STOP button module**

e) 1 x **“Service” module**

Functions: the transmitting unit you design will be employed for the remote control of self-propelled machines, lifting machines, gates, switches, sensors and similar appliances.

Where to use: the transmitting unit will be a **professional product**, to be used in **industrial environments** or in **environments for civil use**, inside working site areas or other contexts, either inside the building or outdoors, even under harsh environmental conditions.

How to use: the operator shall be able to activate the commands using one hand only, right or left, either with or without protective gloves. The configurations you propose shall meet the best standards of usability and ergonomics.

Style and shapes: the **design** of your modular transmitting unit shall be **modern** and **minimal**, with **simple shapes**, not too elaborate. The proposals that will succeed in optimising shapes, size and components with a view to reducing the production costs as much as possible will be greatly appreciated.

Great attention will be given to **ergonomics** and to the **appropriate balance of the transmitting unit**, for a **more comfortable use** by the operator. For the plastics prefer the **use of the brand colours**, that is **yellow** and **black**; alternatively, you may suggest other colours, as long as they are different from one another and highly visible. The **rubber** shall be **black**.

At your discretion the possibility to suggest surface finishes, as long as they do not foster the formation and accumulation of dirt.

Materials: the modular transmitting unit shall be made of **plastics** and **rubber**, which are weather resistant and apt to ensure proper protection against dust and water projected from a nozzle (IP65). For safety reasons, no metal or electrically conductive materials can be employed.

Logo: the AUTECH logo (provided inside the *Material files*) shall be depicted on the case of each module, maintaining the same size across all modules.

Production technologies: the modular transmitting unit shall be designed in view of its industrialisation (injection moulding and rapid assembly), thus avoiding complex manual processes and with a particular attention to reducing at the minimum the number of needed components.

Deliverables: upload all the images that better present your projects (rendering, descriptions, CAD files, etc.) showing in detail at least the **basic configuration**, the **complete configuration** and the **clamping system between modules**. Preferably attach the 3D files in .STP/.IGS format, inside a .ZIP archive, which might contain additional materials useful for the evaluation of the project.

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

Usability (5/5)

Degree of innovation (4/5)

Modularity (4/5)

Aesthetics (4/5)

Technical feasibility (3/5)

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

Contest timeline (UPDATED)

Upload phase: 11th June 2020 – 05th November 2020 (1.59 PM UTC)

Client Vote: from 05th November 2020

Winner announcement: approximately before the end of December 2020

Optional deadlines (UPDATED)

Concept revision: 1st September 2020 (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 Modular Challenge” 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.