



Cap Recognition System



Summary

New product design contest on desall.com: Bormioli Pharma and Desall invite you to revolutionise current child-resistant closure systems for medication containers by leveraging the power of biometric recognition solutions.

Official contest page: <https://bit.ly/Cap-Recognition>

Company description

At Bormioli Pharma, we design and manufacture pharmaceutical packaging systems that reach millions of patients worldwide every year. With 9 factories across Europe and over 1,400 dedicated employees, we proudly distribute our products to more than 100 countries.

We see ourselves as a “start-up” with over a century of experience, originating from a historic industrial background and becoming an independent company in 2017. This unique position allows us to be both stable and dynamic. In recent years, we have consistently invested in enhancing our production capabilities, acquiring new businesses, and, most importantly, driving growth through innovation.

Embracing this spirit, we have developed our own Open Innovation model, a system that promotes skill-sharing and external collaboration in our processes. We firmly believe that collaboration fuels change and that fresh ideas have the power to improve people’s lives.

What we are looking for

Bormioli Pharma is seeking a **new closure system** to safeguard medications at home and limit their use exclusively to the prescribed patients. The so-called “**child-resistant caps**” (CRC) or “child-proof caps” effectively prevent medication packaging from being opened by children, thereby avoiding accidental ingestion of medicinal substances. Currently, CRC caps utilise a system that necessitates pushing the closure downwards while simultaneously rotating it anti-clockwise.

However, CRC caps exhibit several **drawbacks**: they pose difficulty for the elderly or those unable to exert sufficient force, are prone to tampering, and lack smart features. The integration of novel identity recognition technologies with Internet of Things (IoT) solutions could significantly revolutionise the approach to tackling this safety issue.

Guidelines

To ensure the successful implementation of your proposals, please consider the following guidelines:

Product Type

You are invited to submit innovative concepts, objects, shapes, and mechanisms for a **CRC (Child-Resistant Closure) system for medication containers that incorporate advanced biometric recognition systems**. The closure system must ensure that the container cannot be opened, particularly by children, without proper activation of the electromechanical component associated with patient identification. Otherwise, the container will remain effectively tamper-proof.

The electromechanical component can either be integrated into the new closure system or housed within an accessory that can be mounted onto an existing closure (refer to the downloadable *Material files*). The entire system must be compatible with an existing Bormioli container (see the “Dimensions” section and downloadable *Material files*).

The product should be easily portable and operable both via a smartphone app connected to the proposed solution and without the use of a smartphone.

The closure system may also track the number and timing of openings to provide information regarding the patient’s adherence to their medication regimen.

While optional, the design of an app to accompany the device is welcome (not required, but a nice-to-have feature).

Additional suggestions for enhancing the functionality of the closure system and app are also appreciated.

Target and usage

The product is intended for personal and independent use by patients and non-professional users in various daily routine contexts, such as home, work, and travel. It should also be suitable for individuals with disabilities (e.g., visual impairment or motor difficulties in limbs or hands). Therefore, inclusivity is crucial in selecting appropriate solutions.

Aesthetics and shapes

The product should feature a minimalistic and modern design, incorporating curved and gentle contours while avoiding sharp and angular forms.

Inspiration for the style can be drawn from sectors beyond medical, such as aerospace. The product should convey and ensure reliability, robustness, trust, safety, and ease of use.

Colour

For guidance on colour choices, refer to Bormioli Pharma’s [corporate visual identity](#).

Logo

The company logo must be displayed on the product, and it can be found in the downloadable *Material files*.

Dimensions

The medication stored in this type of container, either in liquid or solid form (powder or pills), is typically marketed in containers of varying capacities (from 50 ml to 300 ml) and mouth sizes (28mm or 35mm). For this contest, the product's size should be based on the **sample containers** provided in the downloadable *Material files*.

Production technologies and materials

The primary production method permitted for the dispenser is plastic injection moulding. The use of medical-grade rubber or silicone is allowed. All surfaces in contact with the medication must be made from plastic materials. Matte finishes are preferred, as they facilitate the handling of the opening mechanism.

Required materials

- **Detailed description**
- **Up to 5 low-res images to effectively present your project**

The project description and low-res images can be uploaded via the dedicated **form** in the *Upload page*. Images should be in 4:3 format, with .jpg, .gif or .png file formats acceptable. The colour mode should be RGB and the maximum size of a single file should be 1 MB.

- **Summary presentation of the product**
- **User experience storyboard**
- **High-resolution renders**
- 3D files
- Operational details of the release system

The summary presentation and the other materials listed above should be attached in the *Upload page* as a **.zip folder** with a maximum size of 100MB.

Judging criteria

Entries will be evaluated based on the following criteria:

Innovation 5/5

Functionality/usability 5/5

Technical feasibility 5/5

Eco-friendliness 4/5

Aesthetic quality 4/5

Language

English - Desall is an international community, so all texts (abstract, description, tags, etc.) must be written in English.

Contest timeline

Upload phase: 04 May 2023 – 02 August 2023 (1.59 PM UTC)

Concept review: 06 June 2023 (1.59 PM UTC)

Client vote phase: from 02 August 2023

Winner announcement: tentatively by the end of October 2023

Concept review (optional)

Participants have the opportunity to request an optional review of their project by the Desall Team by the date indicated in the timeline above. To do so, they must 1) save their project as a draft from the upload page and 2) send a request at contest@desall.com or through the contact form. **The review is not mandatory** and only provides an opportunity for participants to receive feedback but does not constitute a necessary condition for participation or provide any advantage in the final evaluation by the Sponsor.

Eligibility and submission criteria

Participation is free and open to creative talents of any nationality aged 18 or older. Participants may submit one or more projects, but only projects published on the website www.desall.com from the upload page dedicated to the contest will be accepted.

Award

1°: €5000

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

Extra Award (option right fee)

€2500

For the duration of the option right, the Sponsor offers an extra chance to all participants setting a fee of €2500 for the purchase of the licence for the economical exploitation of the projects not-acknowledged as the winning proposals.

For more information, 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.