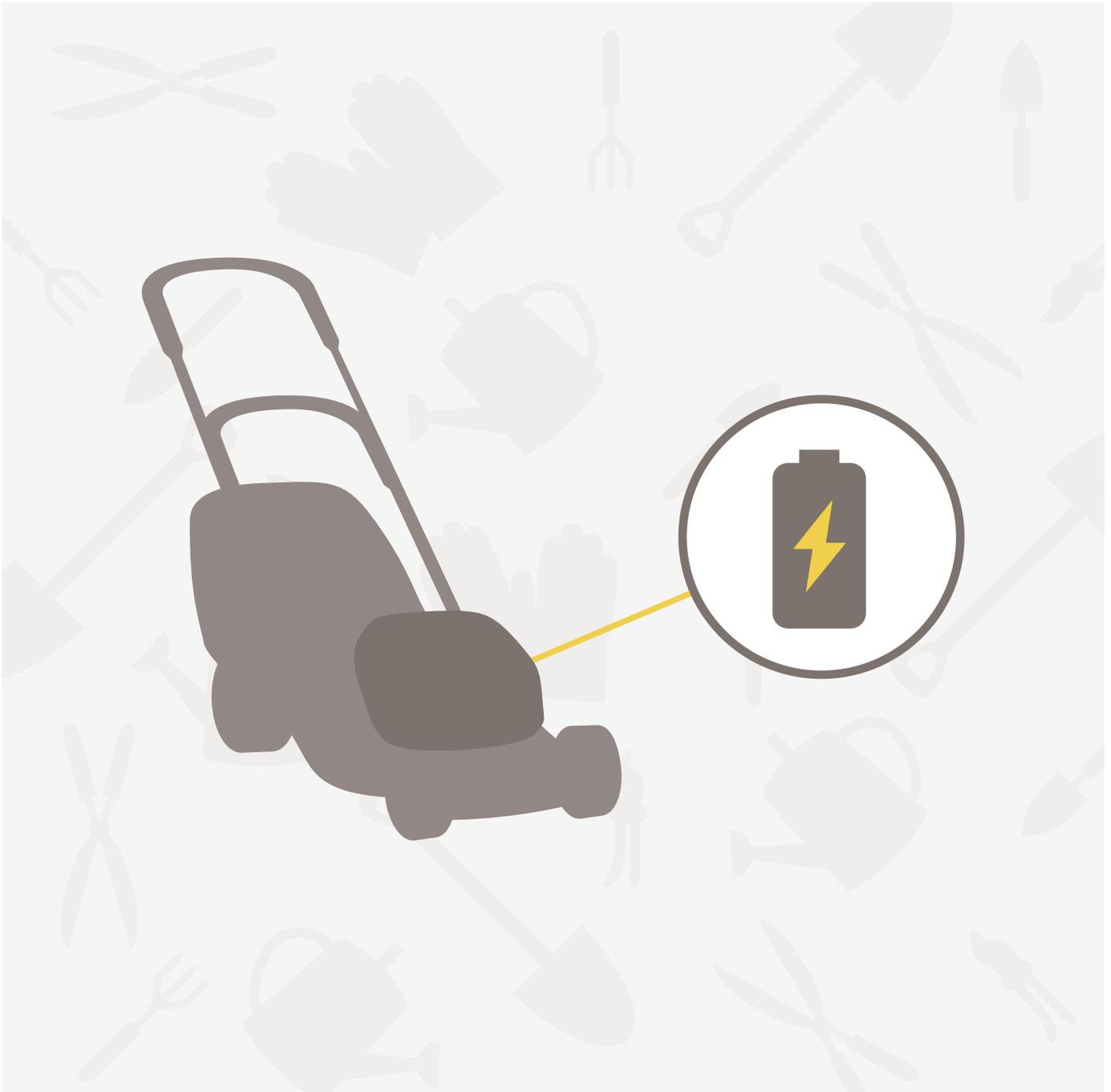


# Battery Lawn Powerhead



## Summary

New product design contest on Desall.com: Leading Gardening Company relies on your talent to create a new engine body (*powerhead*) for lawn mowers, containing engine and batteries, suitable for models of different size and power.

**Official contest page:** <http://bit.ly/BatteryLawnPowerhead>

## Company Description

Leading Gardening Company is a leader enterprise in Europe active in the production of machines and tools for the gardening industry, with a range of products for professional and consumer segments.

## What we are looking for

The sponsor relies on the Community of Desall.com for the design of new products dedicated to gardening, through the organization of two contests open to all creatives, that will take place simultaneously in order to facilitate the creation of a range of products sharing the same *family feeling*. In particular, **Battery Lawn Powerhead** is looking for the design of a new **powerhead**, **namely the body containing batteries and engine** for a line of lawn mowers, and of the respective **battery**.

## Guidelines

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

**Product typology:** you are invited to design the **powerhead, that is the body containing the batteries and the engine** for a line of **lawn mowers**, and the **battery**. The *powerhead* shall host a **brushless engine, two batteries**, needed to provide power, and **two controllers**. It is the **same battery** employed in the tools subject of the **Battery Lawn Tools** contest. You can find the 3D files and relevant bulk volume of all the elements here specified inside the *Material files*.

### 1) POWERHEAD (BODY WITH BATTERIES AND ENGINE)

The *powerhead* is the main focus of the contest and constitutes the element mounted on the top of the lawn mower chassis, inside which the **batteries**, the **engine**, connected to the cutting group, and **two controllers** are hosted. The **maximum bulk volume** of the *powerhead* shall be about **353x270x160mm** (LxWxH) but you are free to reduce the size at your will, as long as you find a way to house all the elements described. Given its irregular shape, we invite you to check out the 3D model attached in the *Material files*. The contest is aimed at the development of the **powerhead**, keeping into consideration its maximum size, the volume of the internal components and the style and functional features described below.

**Battery compartment:** you are invited to think of a housing system for **two batteries** that will have to **be entirely enclosed inside a compartment and easily accessible through a door or similar device**, thus protected from possible water sprays and rain. You are also required to include a practical **insertion and release mechanism** for the batteries that ensure an easy use for the customer. When the lawn mower is operating, the batteries must **be tightly fixed** in their housing. The **access to the batteries** shall preferably be from the **front or from the sides**, at all events it shall be easily accessible for the final user, avoiding solutions that entail the access from the back, namely from the side of the operator, as it would be less convenient.

**Ventilation grids:** in order to ensure the correct cooling of the engine, of the batteries and of the controllers, you are required to include **inlet air grids**, making sure that water may not get inside the *powerhead*. In particular, the **air circulation** is generated by a fan placed inside the engine end bell (not subject of the contest), that thus requires some ducts that may channel the air inside the *powerhead*, ensuring a good air circulation towards the engine and the remaining components. In particular, the **two controllers**, provided in the *Material files*, shall necessarily be placed inside these ducts so to be granted proper cooling.

**Powerhead versatility:** the *powerhead* shall also be suitable for several lawn mower models, with different features and size: the design will accordingly have to be **compact** and **versatile**, able **to adapt from an aesthetic point of view** also to models that have no grass catcher. For more information please refer to the *Market-insight\_Powerhead* attached in the *Material files*.

**Colour:** the *powerhead* you design will have two colours of your choice, with two different proportions and finishes. In particular, a **dark colour with matte finish**, that will cover **60% of the powerhead** and a **light colour with glossy finish**, that will cover the remaining **40%**.

**Style:** the style of the *powerhead* shall be **sober, elegant and modern**, it shall convey a sense of **solidity** and **reliability**, while preserving a sense of **lightness in the shapes**. The lines shall be **fluid and clean**, with **an organic design, simple and minimal shapes**. The edges shall be **rounded and clean**. In order to increase the *family feeling* inside the range of products (including the battery tools, subject of the *Battery Lawn Tools* contest) you are invited to think of possible **stylistic elements shared by all the products** that may become a distinguishing feature for the brand (e.g. grids, etc.). In the *Marketing-insight\_Powerhead* presentation attached in the *Material files* you will find several examples of products currently available on the market, with indications and comments that will guide you through the design. In particular, pay attention to a few stylistic choices that the sponsor prefers to avoid, such as an excessive height for the *powerhead* or a *powerhead* which is too integrated in the lawn mower chassis, that would be ill-suited for a model with no grass catcher (see slides 8-11 of the *Market-insight\_Powerhead* presentation and the other materials attached in the *Material files*).

**Materials:** the structure of the *powerhead* shall be light, in **ABS, PA6, PP or polycarbonate**, mainly employing injection moulding technologies. You may also use other materials, for example **metal insertions**, to create stylistic elements of your choice.

**Logo:** on the design of the *powerhead* you are required to **include the logo**, that for the purposes of the contest you will substitute with the wording: “**logo**”, and **the model code** that for the contest purposes you will substitute with the wording: “**XYZ123**”. You are free to place these two elements at your wish. The logo will be applied either through **pad printing** or **embossed on the mould**.

## 2) BATTERY

You are invited to develop the **design of the battery** that constitutes a **fundamental element which is employed in all products**, including the tools subject of the *Battery Lawn Tools* contest. In case you are participating in both contests, you are invited to use the very same battery. It is a **rechargeable Li-Ion battery** that, once inserted, shall be integrated in the design of the whole product. Consider a minimum bulk volume of **93x130x85mm** (LxWxH), trying to keep the size of the battery as small as possible.

The battery **shall be equipped with a handle** for a more convenient transportation and an easy removal from the compartment, keeping into consideration the insertion/removal and the lock/unlock mechanisms already designed in the battery compartment of the *powerhead*. The **battery design** shall also be **organic**, integrated and respect an aesthetic continuity with the overall design of the product. The battery shall also be equipped with an **indicator light** that enables the user to understand the **battery status**, when in use, and the charge progression when charging. In order to be charged, the battery shall be removed from the *powerhead* and inserted in the charger (which is not subject of the contest). As far as the *powerhead* is concerned, the **battery** will preferably be inserted from **the front** or from **the sides**, thinking of an agile system that enables the company to reduce the battery size, over time, without having to redesign the whole range of products. You can find the 3D file of the battery volume attached in the *Material files*.

## GENERAL INFORMATION

**Other components of the lawn mower:** you are NOT required to design other elements of the lawn mower, beyond the *powerhead* and the batteries, however for the sake of a better presentation you are required to represent the assembled lawn mower using all the components provided as 3D models in the *Material files*.

**Other notes:** you are also invited to employ the **least possible number of components** (and thus of moulds), in order to **keep the production costs** of the *powerhead* **at the lowest**.

**Where to use and target:** the *powerhead* you are invited to design shall be employed in lawn mowers addressed to a **consumer, non-professional** target, for the maintenance of the **home garden**, made of lawn, hedge and bushes.

**Project presentation:** in order to better present your projects, you are invited to submit multiple views, using the five slots available and the archive, showing at least a **view with the entire lawn mower** and a view with the **battery**. You are finally invited to attach the 3D files used for the project in .igs or .step formats, inside the .ZIP archive to attach from the upload page.

**Evaluation criteria:** in the evaluation of your submissions the sponsor will take into account the following criteria, each assigned a value between 1 and 5 according to its importance:

- **Stylistic coherence between the various products** (5/5)
- **Functionality/usability** (5/5)
- **Compactness** (4/5)
- **Aesthetic quality and project presentation** (4/5)
- **Degree of innovation** (3/5)

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

## Timeline

Upload phase: 1<sup>st</sup> April – 31<sup>st</sup> May 2017 (1.59 PM UTC)

Client Vote: from 31<sup>st</sup> May 2017

Winner announcement: approximately by mid-July 2017

## 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](http://www.desall.com) web site, via the upload page related to “Battery Lawn Powerhead” will be accepted.

## Award

**1st: €3,000**

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 with the brief presented.

## Option right

For the duration of the option right, the Sponsor offers an extra chance to all participants setting a price of Euro 1,800 (one-thousand-eight-hundred) for the purchase of the license for the economical exploitation of the projects not-acknowledged as the winning proposals.

For more info, please read the [Contest Agreement](#).