

SUMMARY FOR THE HANDBOOK OF AWARDS

1.-Title:

CREUAT SUSPENSION SYSTEM

2.-Logo:



3.-Human resources:

Project manager (Industrial Engineer)
Prototype manager (Industrial Engineer)
Prototype assistant (Technical Engineer)
Marketing and Strategy director (Economist)

4.-Company description:

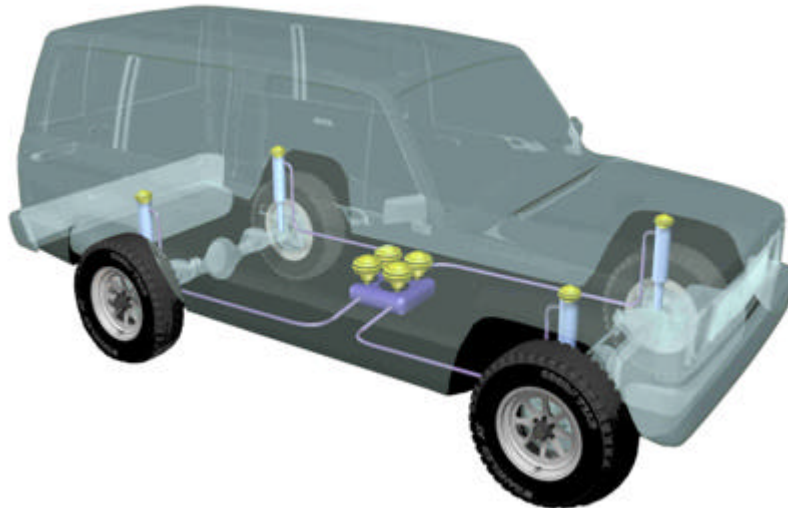
The purpose of **Creuat, S. L.** is the development of a proprietary suspension system by means of several patents have been filed in several countries, in collaboration with very high level race competition teams.

5.-Project innovations:

Creuat introduces a completely novel **Suspension System**, a passive interconnected suspension designed to separate the elasticity and damping rates for each movement such as ROLL, PITCH, HEAVE and WARP. The **Creuat** design is simple and effective, avoiding the cost and complexity of active suspensions, or other look-a-like cross-linked systems. It provides a great deal of optimization of the suspension configuration to enhance handling, traction and corner grip without the usual tradeoffs found in conventional suspension.

Creuat has filed several international patents to protect its proprietary design.

6.-Project image:



7.-Project summary:

The company **Creuat S.L.** is the engineering company created to develop and commercialize its own proprietary suspension system. The project actually started in 1999 when the first patent was filed to protect the basic layout of our suspension system.

The concept of this suspension system can be compared to the active modal suspension developed by Lotus in the early 90s, and quickly banned in the F1 because of its superiority. The **Creuat** design is **simple and effective**, contains no sensors and no actuators, and the response is instantaneous. These advantages provide better stability and handling of the car without tradeoffs.

Separating all suspension dynamic parameters allows a great deal of optimization of the suspension for handling, traction and corner grip well beyond the possibilities of a conventional system, and without the cost of look-alike active or cross-linked systems.

At the present time we are involved in the development of several prototypes on very different types of vehicles, some of them in collaboration with very high level race competition teams. Our system provides advantages for many vehicle types regarding grip and handling:

- ⇒ Off road and ATV projects: The system enhances stability and handling without impairing the off-road performance, specifically traction over the most rough conditions
- ⇒ Competition projects: The system increments the stability, corner grip and handling control in the extreme conditions when these parameters used to be mutually exclusive.

In all cases the **Creuat Suspension System** provides:

- Increased traction, grip and braking capabilities due to more evenly distributed tire patch loads.
- Increase stability because of the specific stiffness for pitch and roll movements.
- Improve steering control over uneven surfaces and increase immunity against road bumps due to the low axle-crossing stiffness.
- No comfort tradeoffs thanks to the low vertical stiffness settings.