

## DEVICE FOR MEASURING FORCE ON A CLIMBING WALL

### DESCRIPTION OF THE TECHNOLOGY

Researchers have developed a device that allows measuring any type of climbing dams and assessing the force applied by climbers.

The device consists of a structure of rigid and resistant material that can be fixed by anchoring points to the climbing walls. The device incorporates telescopic arms which allows to adapt to any distribution of the caps on the wall.

The assembly and disassembly procedure is very simple so it offers great versatility to create new configurations when users need it.

Any type of dam can be fixed to the device, and it is possible to rotate which allows it to be placed in different configurations according to the training needs. This great flexibility in the placement allows an evaluation of the forces applied in any of the climbing dams currently existing in the market.

At present, there is no system that provides an assessment of the effort of climbers. This tool can be essential to improve sports training in this discipline.

### MARKET APPLICATION SECTORS

The market application sectors of this technology are training centers and professionals dedicated to the climbing and especially for those people who want to improve their performance and develop complete and targeted training plans.

The technology can also be applied in the measurement of force in people with health problems. It allows evaluating the progress in recovery processes of surgical interventions, in processes of degeneration or in the evolution of neurodegenerative diseases.

### TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- At present there is no similar device in the market.
- It allows obtaining data about the forces applied on the dam. This allows to develop specific tests for the evaluation and control of the effort in real conditions of practice.
- The device can be adapted to the specific characteristics of each climbing wall and used anchoring bushes already existing on the climbing wall.
- The telescopic arms allow the total regulation of the device, placing the dams in any position according to the needs of the user.
- The device presents an easy assembly and dismantling on the climbing wall.
- Can be attached to any type of dam, regardless of its morphology and size.

This device is a significant advance for climbers and coaches. It allows to know in detail the effort they make in each of their movements during the climbing. Thanks to the device developed, there will be greater control and evaluation of the work done and specific training plans can be proposed to enhance different climbing skills.



## DEVICE FOR MEASURING FORCE ON A CLIMBING WALL

### CURRENT STATE OF DEVELOPMENT

Researchers have developed a functional prototype. This has been tested in climbing walls, designing different configurations and has been tested on a wide variety of dams

### INTELLECTUAL PROPERTY RIGHTS

This technology is protected by patent application.

- Patent title: " Dispositivo para la evaluación, monitorización y control de la fuerza ejercida en presas durante la escalada "
- Application number: P201830167
- Date of application: 23/02/2018

### COLABORATION SOUGHT

The researchers are looking for companies interested in acquiring the technology through a license agreement.

### RELATED IMAGES



### CONTACT

Technology Transfer Service  
University of Alicante  
Phone: +34 965 909 959  
Email: [areaempresas@ua.es](mailto:areaempresas@ua.es)  
Web: <http://innoua.ua.es/>