AUTOMATIC SYSTEM FOR DEPLOYING DEVICES IN AUTONOMOUS VEHICLES

Description:

The present invention relates to the field of mechanics, and more specifically to a fixing device, system and method controllable by the pressure exerted by a mechanical arm. There is a need for a system for placing and fixing devices by means of a mechanical arm, which simplifies the actuators necessary to carry out said fixing, and which reduces the level and duration of stability imposed on the mechanical arm during the fixing operation. The present invention solves the problems described above by means of a device, positionable by means of a mechanical arm, capable of being fixed to a target body quickly and easily, without the intervention of actuators or control electronics during said fixing. The present invention also presents a method and system for fixing said device, both reducing the time required for said fixing, as well as the stability that the mechanical arm needs to maintain during the process. Depending on the particular realization of the system, the mechanical arm can be controlled manually by an operator, through any means of control, analog or digital, in which the user is in the same location as the system or in remote control, in the one that a data transfer is made from the user to the system, both being in different locations. Alternatively, in other preferred embodiments of the system, the mechanical arm is integrated into an unmanned vehicle with remote control means that allow the user to position the fixture remotely. Although the unmanned vehicle may preferably be an aerial drone, there may be particular embodiments in which said unmanned vehicle is, for example, a land vehicle or a water vehicle.

Keywords:
Uav, Robotic Arm, Drones, Autonomous Vehicles

Sectors:
ICT, Electronics, Engineering, Security, Protection and Defense

Areas:
Hardware / Devices / Components, Equipment, Mechanics, Robotics, Technological Improvements, Infrastructures

Advantages:

The device, system and method of the invention therefore allow the placement and fixation of devices by means of a mechanical arm in a simple, fast and efficient manner; without the need for actuators to control the process of fixing and releasing the device; and minimizing the stability requirements imposed on the mechanical arm to carry out said process. In addition to controlling occupied spaces in real time, it would act to manage space reservations through mobile devices.

Uses and Applications:

Technology belonging to the area of mechanics and robotics. The patented device allows the positioning and fixing of devices by means of a mechanical arm that can be incorporated in an operator-controllable vehicle or autonomous vehicle.

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