

Title (en)

JOYSTICK WITH COMPENSATION SPRINGS AND METHOD OF MAKING SAME.

Title (de)

STEUERKNÜPPEL MIT AUSGLEICHSFEDERN UND VERFAHREN ZUR HERSTELLUNG.

Title (fr)

Joystick à ressorts de compensation, procédé de fabrication et manette correspondants

Publication

EP 2341410 A1 20110706 (FR)

Application

EP 11150137 A 20110104

Priority

FR 1050018 A 20100104

Abstract (en)

The joystick has a stick (12) movable with respect to a base in rotation around two axes, and returning units e.g. metal helicoidal spring (214), mounted between the base and a movable element i.e. movable support, acting on the stick and tending to return the stick to a neutral position. Compensation units e.g. compression springs, are mounted between the base and the movable element, and apply force on the movable element partially compensating the force applied by the returning units when the stick is located in vicinity of the neutral position. An independent claim is also included for a method for manufacturing a joystick.

Abstract (fr)

L'invention concerne un joystick comprenant un manche (12) mobile par rapport à un socle (11) au moins en rotation autour de deux axes, et des premiers moyens de rappel montés entre ledit socle (11) et un élément mobile agissant sur ledit manche (12), tendant à ramener ledit manche (12) dans une position neutre. Des moyens de compensation, montés entre ledit socle (11) et ledit élément mobile, appliquent sur celui-ci une force compensant au moins partiellement la force appliquée par lesdits premiers moyens de rappel, au moins lorsque ledit manche (12) se trouve à proximité de ladite position neutre.

IPC 8 full level

G05G 5/05 (2006.01); **G05G 9/047** (2006.01)

CPC (source: EP US)

G05G 5/05 (2013.01 - EP US); **G05G 9/047** (2013.01 - EP US); **G05G 2009/04707** (2013.01 - EP US); **G05G 2009/04755** (2013.01 - EP US)

Citation (applicant)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2341410 A1 20110706; **EP 2341410 B1 20150909**; FR 2954980 A1 20110708; FR 2954980 B1 20120210; JP 2011175630 A 20110908; US 2011163957 A1 20110707; US 8471815 B2 20130625

DOCDB simple family (application)

EP 11150137 A 20110104; FR 1050018 A 20100104; JP 2010294155 A 20101228; US 98378611 A 20110103