

Title (en)

AN AIMING-ASSISTANCE METHOD AND DEVICE FOR LASER GUIDANCE OF A PROJECTILE

Title (de)

HILFSVERFAHREN UND -VORRICHTUNG ZUM ZIELEN FÜR DIE LASERLENKUNG EINES PROJEKTILS

Title (fr)

PROCÉDÉ ET DISPOSITIF D'AIDE À LA VISÉE POUR LE GUIDAGE LASER D'UN PROJECTILE

Publication

**EP 3239644 A1 20171101 (FR)**

Application

**EP 17167889 A 20170425**

Priority

FR 1600721 A 20160429

Abstract (en)

[origin: US2017314891A1] A method and a device for assisting aiming at a target, in particular for the purpose of improving the accuracy with which a projectile is guided towards said target by means of a laser beam. The method makes use of a camera serving to capture either a complete image of the environment, or else a selective image of said target in said environment. Thereafter, the method makes it possible to verify that said laser beam is indeed pointing at said target by displaying the point of contact of said laser beam in said environment on the image captured by said camera, and then to determine the accuracy with which said laser beam is indeed pointing at said target. As a function of said accuracy, launching of said projectile may either be confirmed or cancelled. This method also makes it possible to identify the code of said guide beam illuminating said target.

Abstract (fr)

La présente invention concerne un procédé et un dispositif d'aide à la visée d'une cible (5) destinée notamment à améliorer la précision du guidage par un faisceau laser (9) d'un projectile (10) vers ladite cible (5). Ce procédé utilise une caméra (2) permettant d'enregistrer une image complète de l'environnement ou bien une image sélective de ladite cible (5) dans ledit environnement. Ensuite, ce procédé permet de vérifier que ledit faisceau laser (9) pointe réellement ladite cible (5) en affichant le point de contact (91) dudit faisceau laser (9) dans ledit environnement sur l'image enregistrée par ladite caméra (2), puis de déterminer la précision avec laquelle ledit faisceau laser (9) pointe réellement ladite cible (5). En fonction de ladite précision, le lancement dudit projectile (10) peut être confirmé ou bien annulé. Ce procédé permet également d'identifier le code dudit faisceau de guidage (9) illuminant ladite cible (5).

IPC 8 full level

**F41G 3/14** (2006.01); **F41G 3/02** (2006.01); **F41G 7/22** (2006.01)

CPC (source: EP US)

**F41G 3/02** (2013.01 - EP US); **F41G 3/145** (2013.01 - EP US); **F41G 7/007** (2013.01 - US); **F41G 7/2246** (2013.01 - US); **F41G 7/226** (2013.01 - EP US); **F41G 7/2293** (2013.01 - EP US)

Citation (applicant)

- US 4143835 A 19790313 - JENNINGS JR WALTER B, et al
- FR 2719659 A1 19951110 - RHEINMETALL IND GMBH [DE], et al
- US 2009078817 A1 20090326 - WILLIAMS DARIN S [US]
- EP 2642238 A1 20130925 - ROSEMOUNT AEROSPACE INC [US]
- US 6069656 A 20000530 - SILVER ALAN G [US]
- US 2013087684 A1 20130411 - GUETTA AVISHAY [IL], et al
- WO 2016009440 A1 20160121 - ELBIT SYS ELECTRO OPTICS ELOP [IL]
- US 6023322 A 20000208 - BAMBERGER STEPHEN J [US]

Citation (search report)

- [XAYI] US 6069656 A 20000530 - SILVER ALAN G [US]
- [YA] US 2013087684 A1 20130411 - GUETTA AVISHAY [IL], et al
- [YA] WO 2016009440 A1 20160121 - ELBIT SYS ELECTRO OPTICS ELOP [IL]
- [A] US 6023322 A 20000208 - BAMBERGER STEPHEN J [US]
- [AD] US 4143835 A 19790313 - JENNINGS JR WALTER B, et al
- [AD] US 2009078817 A1 20090326 - WILLIAMS DARIN S [US]
- [A] EP 2642238 A1 20130925 - ROSEMOUNT AEROSPACE INC [US]
- [A] JASON F RALPH ET AL: "Semi-active guidance using event driven tracking", INFORMATION FUSION (FUSION), 2011 PROCEEDINGS OF THE 14TH INTERNATIONAL CONFERENCE ON, IEEE, 5 July 2011 (2011-07-05), pages 1 - 7, XP032008926, ISBN: 978-1-4577-0267-9

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DOCDB simple family (application)

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