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研究發展處產學合作中心 台鑒：

貴公司編號： 06A-090513

案件性質： 美國發明專利

本所編號： 31690-US-PA

案件名稱： MOBILE PLATFORM

一、承委由本所代理申請之上開案件，業已獲頒該國專利證書，謹此恭賀！

二、本專利之發證日（專利權開始日）為： 2012年11月13日。

本專利之證書號為： US8, 307, 923B2號。

下次繳年費期限為： 2016年5月13日。

專利期間計算為：申請日(2010年3月9日)起計20年又410天。

專利權截止日為：2031年4月23日。

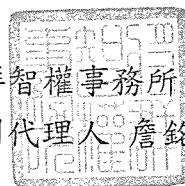
三、檢附：專利證書正本乙份，請查收。

四、客服專員：謝秀美小姐(分機635)。

此 順頌

時祺

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The Director of the United States
Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

David J. Kypos

Director of the United States Patent and Trademark Office

06A-090513



US008307923B2

(12) **United States Patent**
Lin et al.(10) **Patent No.:** **US 8,307,923 B2**
(45) **Date of Patent:** **Nov. 13, 2012**(54) **MOBILE PLATFORM**(75) Inventors: **Pei-Chun Lin**, Taipei (TW); **Shuan-Yu Shen**, Taoyuan County (TW)(73) Assignee: **National Taiwan University**, Taipei (TW)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 410 days.

(21) Appl. No.: **12/719,869**(22) Filed: **Mar. 9, 2010**(65) **Prior Publication Data**

US 2011/0100733 A1 May 5, 2011

(30) **Foreign Application Priority Data**

Oct. 29, 2009 (TW) 98136678 A

(51) **Int. Cl.**
B62D 51/06 (2006.01)(52) **U.S. Cl.** 180/8.3; 901/1(58) **Field of Classification Search** 180/8.3,
180/8.1, 8.2, 8.6, 8.5, 199; 901/1, 8, 14
See application file for complete search history.(56) **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner — Tashiana Adams(74) *Attorney, Agent, or Firm* — Jianq Chyun IP Office(57) **ABSTRACT**

A mobile platform including a body, hybrid leg-wheels and driving mechanisms is provided. The hybrid leg-wheels are disposed around the body for carrying the body moving on a working surface. The driving mechanisms are disposed between the corresponding hybrid leg-wheels and the body. Each driving mechanism includes a driving axle connecting the corresponding hybrid leg-wheels and the body. Each driving mechanism provides the corresponding hybrid leg-wheel a rotational degree of freedom and a translational degree of freedom, wherein the rotational degree of freedom and the translational degree of freedom are driven independently. The rotational degree of freedom allows the hybrid leg-wheels rotating along an axis of the driving axle, and the translational degree of freedom allows the hybrid leg-wheels translating relative to the driving axle, wherein the rotational direction is substantially perpendicular to the translational direction.

19 Claims, 9 Drawing Sheets