

Title (en)  
Vehicle, in particular toy robot with vibration drive

Title (de)  
Vehikel, insbesondere Spielzeug-Roboter mit Vibrationsantrieb

Title (fr)  
Véhicule, notamment robot-jouet doté d'un entraînement par vibrations

Publication  
**EP 2301638 B1 20120314 (DE)**

Application  
**EP 10179680 A 20100924**

Priority  
US 24602309 P 20090925

Abstract (en)  
[origin: US2011028069A1] An apparatus includes a body, an eccentric load, a rotational motor coupled to the body and adapted to rotate the eccentric load, and a plurality of legs each having a leg base and a leg tip at a distal end relative to the leg base. At least a portion of the plurality of legs are constructed from a flexible material, are injection molded, are integrally coupled to the body at the leg base, and include at least one driving leg configured to cause the apparatus to move in a direction generally defined by an offset between the leg base and the leg tip as the rotational motor rotates the eccentric load.

IPC 8 full level  
**A63H 11/02** (2006.01); **A63H 17/26** (2006.01); **A63H 29/22** (2006.01)

CPC (source: EP KR US)  
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**DE 202010013574 U 20100924**; AT 10179680 T 20100924; AT 10179686 T 20100924; AT 10179694 T 20100924; AT 10179706 T 20100924; AT 10179707 T 20100924; BR 112012006768 A 20100924; BR 112012006769 A 20100924; BR 112012007433 A 20100924; CN 201080001431 A 20100924; CN 201080001432 A 20100924; CN 201080001433 A 20100924; CN 201090000529 U 20100924; CN 201090000530 U 20100924; CN 201220290530 U 20100924; CN 201220376333 U 20100924; DE 102010046440 A 20100924; DE 102010046441 A 20100924; DE 102010046509 A 20100924; DE 102010046510 A 20100924; DE 102010046511 A 20100924; DE 102010046513 A 20100924; DE 202010013575 U 20100924; DE 202010013576 U 20100924; DE 202010013578 U 20100924; DE 202010013579 U 20100924; DE 202010013581 U 20100924; DK 10179680 T 20100924; DK 10179694 T 20100924; DK 10179707 T 20100924; DK 10763925 T 20100924; DK 10766167 T 20100924; DK 12163857 T 20100924; EP 10179680 A 20100924; EP 10179686 A 20100924; EP 10179694 A 20100924; EP 10179701 A 20100924; EP 10179706 A 20100924; EP 10179707 A 20100924; EP 10763925 A 20100924; EP 10766167 A 20100924; EP 12163857 A 20100924; EP 13159350 A 20100924; ES 10179680 T 20100924; ES 10179686 T 20100924; ES 10179694 T 20100924; ES 10179701 T 20100924; ES 10179706 T 20100924; ES 10179707 T 20100924; ES 10763925 T 20100924; ES 10766167 T 20100924; ES 12163857 T 20100924; HK 11104918 A 20110518; HK 11104919 A 20110518; HK 11104920 A 20110518; HK 11104952 A 20110519; HK 11104954 A 20110519; HK 11105019 A 20110520; HK 12100397 A 20120113; HK 12103735 A 20120417; HK 12105740 A 20120613; HK 12113515 A 20121228; HK 13100141 A 20130104; HU E10763925 A 20100924; HU E10766167 A 20100924; JP 2012531075 A 20100924; JP 2012531077 A 20100924; JP 2012531081 A 20100924; JP 2014147088 A 20140717; KR 20127007726 A 20100924; KR 20127007728 A 20100924; KR 20127007729 A 20100924;

KR 20127015515 A 20100924; MX 2012003515 A 20100924; MX 2012003516 A 20100924; MX 2012003522 A 20100924;  
PL 10179680 T 20100924; PL 10179694 T 20100924; PL 10179707 T 20100924; PL 10763925 T 20100924; PL 10766167 T 20100924;  
PL 12163857 T 20100924; PT 10179680 T 20100924; PT 10179694 T 20100924; PT 10179707 T 20100924; PT 10763925 T 20100924;  
PT 10766167 T 20100924; PT 12163857 T 20100924; RU 2012111343 A 20100924; RU 2012111345 A 20100924; RU 2012111347 A 20100924;  
RU 2012124895 A 20100924; TW 99132530 A 20100924; US 2010050256 W 20100924; US 2010050258 W 20100924;  
US 2010050261 W 20100924; US 2010050265 W 20100924; US 2010050266 W 20100924; US 2010050281 W 20100924;  
US 201113245475 A 20110926; US 201514625723 A 20150219; US 201615166652 A 20160527; US 201815881831 A 20180129;  
US 201916352969 A 20190314; US 86069610 A 20100820; US 90881810 A 20101020