

## 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)

**A63H 11/02** (2013.01 - EP US); **A63H 13/02** (2013.01 - KR); **A63H 17/25** (2013.01 - KR); **A63H 17/26** (2013.01 - EP US); **A63H 29/22** (2013.01 - EP KR US); **A63H 31/00** (2013.01 - KR)

## 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 SE SI SK SM TR

## DOCDB simple family (publication)

**DE 202010013574 U1 20101202**; AT E542579 T1 20120215; AT E543547 T1 20120215; AT E544496 T1 20120215; AT E549066 T1 20120315; AT E549067 T1 20120315; BR 112012006768 A2 20160524; BR 112012006769 A2 20160524; BR 112012006769 B1 20191217; BR 112012007433 A2 20200811; CN 102137698 A 20110727; CN 102137698 B 20130717; CN 102256677 A 20111123; CN 102256677 B 20140528; CN 102316948 A 20120111; CN 102316948 B 20140409; CN 202427162 U 20120912; CN 202666393 U 20130116; CN 203154804 U 20130828; CN 203196307 U 20130918; DE 102010046440 A1 20110414; DE 102010046441 A1 20110407; DE 102010046509 A1 20110407; DE 102010046510 A1 20110331; DE 102010046511 A1 20110331; DE 102010046513 A1 20110804; DE 202010013575 U1 20101202; DE 202010013576 U1 20101202; DE 202010013578 U1 20101202; DE 202010013579 U1 20101202; DE 202010013581 U1 20101202; DK 2301638 T3 20120702; DK 2301640 T3 20120625; DK 2301643 T3 20120507; DK 2480300 T3 20151012; DK 2480301 T3 20151012; DK 2484418 T3 20140324; EP 2301638 A1 20110330; EP 2301638 B1 20120314; EP 2301639 A1 20110330; EP 2301639 B1 20120208; EP 2301640 A1 20110330; EP 2301640 B1 20120314; EP 2301641 A1 20110330; EP 2301641 B1 20120523; EP 2301642 A1 20110330; EP 2301642 B1 20120201; EP 2301643 A1 20110330; EP 2301643 B1 20120125; EP 2480300 A1 20120801; EP 2480300 B1 20150708; EP 2480301 A1 20120801; EP 2480301 B1 20150708; EP 2484418 A1 20120808; EP 2484418 B1 20140129; EP 2612695 A1 20130710; ES 2381247 T3 20120524; ES 2381891 T3 20120601; ES 2381994 T3 20120604; ES 2383880 T3 20120627; ES 2383881 T3 20120627; ES 2387608 T3 20120927; ES 2460115 T3 20140513; ES 2549457 T3 20151028; ES 2549458 T3 20151028; HK 1150800 A1 20120113; HK 1150801 A1 20120113; HK 1150802 A1 20120113; HK 1150803 A1 20120113; HK 1150804 A1 20120113; HK 1150989 A1 20120120; HK 1160062 A1 20120810; HK 1163002 A1 20120907; HK 1167358 A1 20121130; HK 1172861 A1 20130503; HK 1173409 A1 20130516; HU E026410 T2 20160628; HU E026610 T2 20160628; JP 2013505785 A 20130221; JP 2013505787 A 20130221; JP 2013505790 A 20130221; JP 2014198264 A 20141023; JP 5643316 B2 20141217; KR 101398717 B1 20140528; KR 101398726 B1 20140528; KR 101487068 B1 20150128; KR 20120085908 A 20120801; KR 20120087906 A 20120807; KR 20120088685 A 20120808; KR 20120092576 A 20120821; MX 2012003515 A 20120601; MX 2012003516 A 20120619; MX 2012003522 A 20120619; PL 2301638 T3 20120831; PL 2301640 T3 20120831; PL 2301643 T3 20120731; PL 2480300 T3 20151231; PL 2480301 T3 20151231; PL 2484418 T3 20140530; PT 2301638 E 20120528; PT 2301640 E 20120528; PT 2301643 E 20120423; PT 2480300 E 20151027; PT 2480301 E 20151023; PT 2484418 E 20140331; RU 2012111343 A 20130927; RU 2012111345 A 20130927; RU 2012111347 A 20130927; RU 2503479 C1 20140110; RU 2506108 C2 20140210; RU 2506980 C2 20140220; RU 2508928 C2 20140310; TW 201116326 A 20110516; TW 1522151 B 20160221; US 10265633 B2 20190423; US 10688403 B2 20200623; US 2011028069 A1 20110203; US 2011076914 A1 20110331; US 2012015585 A1 20120119; US 2015165331 A1 20150618; US 2016271505 A1 20160922; US 2018147500 A1 20180531; US 2019209938 A1 20190711; US 8038503 B2 20111018; US 8834227 B2 20140916; US 9017136 B2 20150428; US 9370724 B2 20160621; US 9908058 B2 20180306; WO 2011038266 A1 20110331; WO 2011038268 A1 20110331; WO 2011038271 A1 20110331; WO 2011038273 A1 20110331; WO 2011038274 A1 20110331; WO 2011038281 A1 20110331; WO 2011038281 A4 20110603

## DOCDB simple family (application)

**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