

Title (en)  
DEFORMATION ROBOT

Title (de)  
VERFORMUNGSROBOTER

Title (fr)  
ROBOT TRANSFORMABLE

Publication  
**EP 3974043 A4 20221019 (EN)**

Application  
**EP 21824457 A 20210224**

Priority  

- CN 202011108943 A 20201016
- CN 202010691438 A 20200717
- CN 2021077711 W 20210224

Abstract (en)

[origin: EP3974043A1] The present invention provides a transformable robot, the transformable robot comprises an arm structure, a leg structure and a head of the robot which are fixed to a ribcage structure. The arm structure comprises a left arm and a right arm, the leg structure comprises a left leg and a right leg; the ribcage structure comprises a first steering gear fixed on an upper part of a second fixing frame, a rotating output shaft of the first steering gear successively passes through a top wall of the second fixing frame and a first backing plate to fixedly connected with a first steering wheel fixed on a first rotating frame; the first steering wheel is provided with an arc-shaped limited opening; a limited column on the first backing plate is movably passed through the limited opening; the rotating output shaft of the first steering gear rotates to drive the first rotating frame to rotate. The transformable robot may realize a transformation from a human form to a car form or from the car form to the human form by controlling the steering gears on each joint of the robot through a controller. In the car form, the transformable robot may realize a movement through the steering gears. In the human form, the robot may realize a biped walking through the steering gears.

IPC 8 full level  
**A63H 17/26** (2006.01); **A63H 13/00** (2006.01); **A63H 33/00** (2006.01)

CPC (source: CN EP KR US)

**A63H 3/04** (2013.01 - CN); **A63H 3/36** (2013.01 - CN); **A63H 3/46** (2013.01 - CN); **A63H 11/18** (2013.01 - CN); **A63H 13/00** (2013.01 - EP);  
**A63H 13/04** (2013.01 - CN); **A63H 17/00** (2013.01 - CN); **A63H 17/26** (2013.01 - CN EP); **A63H 17/262** (2013.01 - US);  
**A63H 17/395** (2013.01 - US); **A63H 29/22** (2013.01 - US); **A63H 31/04** (2013.01 - US); **A63H 33/003** (2013.01 - EP KR US);  
**A63H 2200/00** (2013.01 - US)

Citation (search report)

- [A] KR 20200000983 U 20200518
- [A] CN 108371820 A 20180807 - ROBOSEN INTELLIGENT TECH SHENZHEN CO LTD
- [A] CN 109746926 A 20190514 - UNION BROTHER MACHINERY CO LTD
- See also references of WO 2022012051A1

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 3974043 A1 20220330; EP 3974043 A4 20221019; EP 3974043 B1 20230503;** CN 113941160 A 20220118; CN 214808398 U 20211123;  
JP 2023512370 A 20230327; JP 7419405 B2 20240122; KR 20220041822 A 20220401; US 2022118374 A1 20220421;  
WO 2022012051 A1 20220120

DOCDB simple family (application)

**EP 21824457 A 20210224;** CN 202011108943 A 20201016; CN 202022307855 U 20201016; CN 2021077711 W 20210224;  
JP 2021574198 A 20210224; KR 20227001192 A 20210224; US 202117645998 A 20211227