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(54) Title: AUTONOMOUS MOVING TRANSFER ROBOT

(54) 发明名称: 自主移动搬运机器人

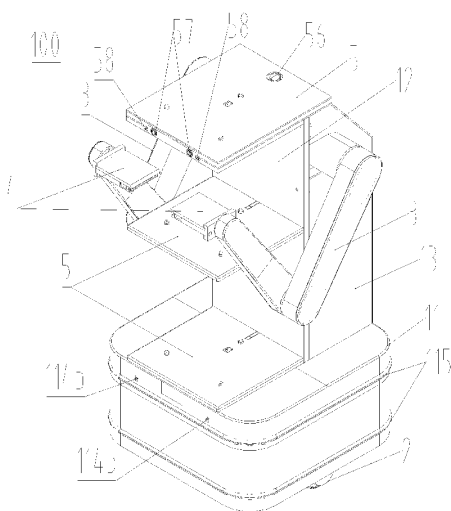


图 1

(57) Abstract: An autonomous moving transfer robot, comprising: a main body that comprises a base (11) and a vertical plate (12); a traveling mechanism (2) that comprises a driving wheel and a driven wheel that are mounted on the base (11); a working mechanism that comprises two manipulators, wherein each manipulator comprises a mechanical arm (3), a proximal end of which is connected to the vertical plate (12), and a clamp (4) that is pivotally connected to a distal end of the mechanical arm (3); the mechanical arms (3) are configured to enable the clamps (4) to reach a desired position, and the two manipulators drive the two clamps (4) near to and away from each other so as to grip and release a target object (400); a carrying mechanism that comprises a plurality of plate-shaped carrying members (5) used for carrying the target object (400), the plurality of carrying members (5) being fixed on the same side, i.e. the front side or the rear side, of the vertical plate (12), and arranged at intervals along the walking direction; and a control system that is used for controlling the walking/stopping and steering of the traveling mechanism and controlling the movement of the manipulators. The present autonomous moving transfer robot is capable of automatically transferring the target object without manually loading and unloading, thus effectively improving production tempo and working efficiency.

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RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告(条约第21条(3))。

(57) 摘要: 一种自主移动搬运机器人, 包括: 主体, 包括底座(11)和竖板(12); 行走机构(2), 包括安装于底座(11)的主动轮和从动轮; 作业机构, 包括两个机械手, 每个机械手包括近端连接于竖板(12)的机械臂(3)和枢转地连接在机械臂(3)的远端的夹具(4), 机械臂(3)设置为能够使得夹具(4)到达所需位置, 两个机械手带动两个夹具(4)相互靠近和远离, 以夹取和释放目标物体(400); 承载机构, 包括用于承载目标物体(400)的多个板状的承载件(5), 多个承载件(5)均固定于竖板(12)的同一侧, 前侧或后侧, 且沿垂向方向间隔设置; 以及控制系统, 用于控制行走机构的走/停和转向, 以及控制机械手的运动。本自主移动搬运机器人能够实现自动化搬运目标物体, 无需人工装卸, 有效地提高了生产节拍和工作效率。