

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织  
国际局



(10) 国际公布号  
**WO 2022/227648 A1**

(43) 国际公布日  
2022 年 11 月 3 日 (03.11.2022)

- (51) 国际专利分类号:  
*G07C 9/00* (2020.01) *G07F 9/02* (2006.01)  
*G07F 11/00* (2006.01) *G08B 13/08* (2006.01)  
*G07F 9/00* (2006.01)
- (21) 国际申请号: PCT/CN2021/141184
- (22) 国际申请日: 2021 年 12 月 24 日 (24.12.2021)
- (25) 申请语言: 中文
- (26) 公布语言: 中文
- (30) 优先权:  
202110455765.4 2021 年 4 月 26 日 (26.04.2021) CN
- (71) 申请人: 合肥美的智能科技有限公司 (HEFEI MIDEA INTELLIGENT TECHNOLOGY CO., LTD.)  
[CN/CN]; 中国安徽省合肥市高新区明珠大道 198 号 G2 号楼 2 楼, Anhui 230088 (CN)。
- (72) 发明人: 徐达(XU, Da); 中国安徽省合肥市高新区明珠大道 198 号 G2 号楼 2 楼, Anhui 230088 (CN)。  
任志恒(REN, Zhiheng); 中国安徽省合肥市高新区明珠大道 198 号 G2 号楼 2 楼, Anhui 230088 (CN)。
- (74) 代理人: 北京路浩知识产权代理有限公司(CN-KNOWHOW INTELLECTUAL PROPERTY AGENT LIMITED); 中国北京市海淀区中关村大街 11 号 9 层 965, Beijing 100086 (CN)。
- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL,

(54) Title: CONTROL METHOD AND APPARATUS FOR INTELLIGENT VENDING CABINET, ELECTRONIC DEVICE, AND STORAGE MEDIUM

(54) 发明名称: 智能售货柜的控制方法、装置、电子设备及存储介质

售货柜接收云端发送的认证结果, 根据认证结果确定柜门开启请求是否通过

在确定柜门开启请求通过后, 采用加密方式生成开锁指令, 向电控锁发送开锁指令, 以使电控锁在成功解密开锁指令之后, 打开柜门

图 1

- 11 A VENDING CABINET RECEIVES AN AUTHENTICATION RESULT SENT BY THE CLOUD, AND DETERMINES, ACCORDING TO THE AUTHENTICATION RESULT, WHETHER A CABINET DOOR OPENING REQUEST IS PASSED
- 12 AFTER DETERMINING THAT THE CABINET DOOR OPENING REQUEST IS PASSED, GENERATE AN UNLOCKING INSTRUCTION IN AN ENCRYPTED MANNER, AND SEND THE UNLOCKING INSTRUCTION TO AN ELECTRICAL CONTROL LOCK, SUCH THAT THE ELECTRICAL CONTROL LOCK OPENS A CABINET DOOR AFTER SUCCESSFULLY DECRYPTING THE UNLOCKING INSTRUCTION

(57) Abstract: The present application relates to the technical field of device control, and provides a control method and apparatus for an intelligent vending cabinet, an electronic device, and a storage medium. The method comprises: a vending cabinet determines that a cabinet door opening request is passed, and sends an encrypted unlocking instruction to an electrical control lock configured in the vending cabinet, such that the electrical control lock opens a cabinet door of the vending cabinet after successfully decrypting the unlocking instruction. According to the control method and apparatus for an intelligent vending cabinet, the electronic device, and the storage medium provided in the present application, by means of encrypted communication between the vending cabinet and the electrical control lock, effective checking of the validity of an unlocking signal of the electrical control lock is implemented, malicious opening of the cabinet door by a fake external signal is avoided, and the safety and reliability of the vending cabinet are thus improved.

[见续页]

PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL,  
ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US,  
UZ, VC, VN, WS, ZA, ZM, ZW。

(84) 指定国 (除另有指明, 要求每一种可提供的地区  
保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ,  
NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM,  
AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG,  
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,  
IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT,  
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: 本申请涉及设备控制技术领域, 提供一种智能售货柜的控制方法、装置、电子设备及存储介质, 该方法包括: 售货柜确定柜门开启请求通过, 向所述售货柜中配置的电控锁发送加密的开锁指令, 以使所述电控锁成功解密所述开锁指令后, 打开所述售货柜的柜门。本申请提供的智能售货柜的控制方法、装置、电子设备及存储介质, 通过售货柜与电控锁之间加密通讯的方式, 实现有效检验电控锁的开锁信号的合法性, 避免伪造的外部信号对柜门的恶意开启, 提高售货柜的安全性和可靠性。