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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, 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, PT, QA, RO, RS, RU, RW, SA, SC,
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(54) Title: USER CONTROL DEVICE FOR A TRANSPORTER

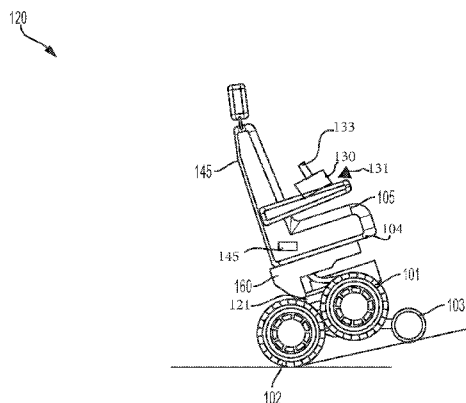


FIG. 1

(57) Abstract: A user control device for a transporter. The user control device can communicate with the transporter via electrical interface(s) that can facilitate communication and data processing among the user interface device and controllers that can control the movement of the transporter. The user control device can perform automated actions based on the environment in which the transporter operates and the user's desired movement of the transporter. External applications can enable monitoring and control of the transporter.





TM), European (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).

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER

INV. G05D1/00 A61G5/06 G05D1/02 B60L15/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G05D A61G B60L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2014/018994 A1 (PANZARELLA THOMAS A [US] ET AL) 16 January 2014 (2014-01-16) Abstact figures 1d,2-4 paragraphs [0021] - [0023], [0027] - [0031], [0034] - [0036], [0040] - [0045], [0047] - [0056], [0058] - [0064] -----	1-8
Y	WO 2015/167411 A1 (MUTLU LÜTFI [TR]) 5 November 2015 (2015-11-05) figures 1,3 page 1, lines 1-18 page 1, line 48 - page 2, line 56 page 3, line 116 - page 6, line 266 ----- -/--	1-8



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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Date of the actual completion of the international search

27 September 2017

Date of mailing of the international search report

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2017/027410

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2015/245962 A1 (FURUTA TAKAYUKI [JP] ET AL) 3 September 2015 (2015-09-03) figures 1-2 paragraphs [0037] - [0239] -----	1-8
Y	JP 2014 174275 A (ATR ADVANCED TELECOMM RES INST) 22 September 2014 (2014-09-22) figures 1a,1b,2,5 paragraphs [0038] - [0047] -----	6
A		1-5,7,8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2017/027410

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-8

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8

Transporter and Method for Maneuvering a Transporter using Segmenting and Plane Identification.

2. claims: 9-13

Transporter for Navigating Stairs and Corresponding Method.

3. claims: 14-16

Transporter and Method for Negotiating a Door.

4. claims: 17, 18

Method for Storing a Transporter in a Vehicle.

5. claim: 19

Method for Coupling a Transporter with a Charging Dock.

6. claim: 20

Method of Negotiating an Elevator for a Transporter.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2017/027410

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014018994 A1	16-01-2014	US 2014018994 A1	16-01-2014
		WO 2014011992 A2	16-01-2014

WO 2015167411 A1	05-11-2015	NONE	

US 2015245962 A1	03-09-2015	JP 2015166891 A	24-09-2015
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JP 2014174275 A	22-09-2014	JP 6202517 B2	27-09-2017
		JP 2014174275 A	22-09-2014
