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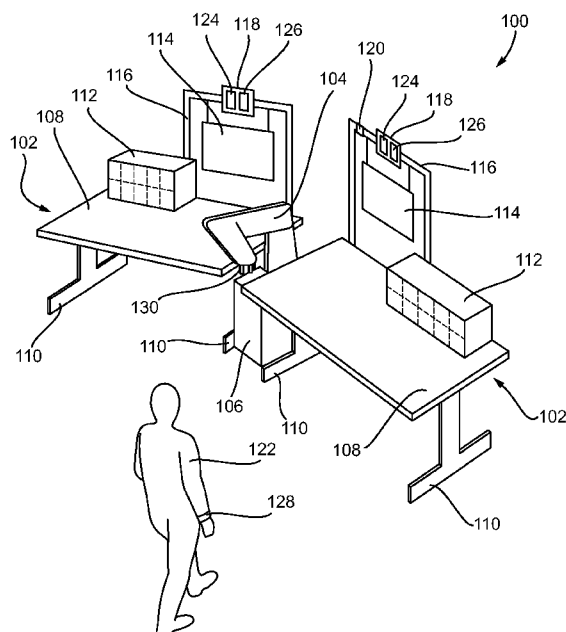
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(54) Title: WORKBENCH SYSTEM

Fig. 1



(57) Abstract: A workbench system (100) comprising: a workbench (102); one or more sensors (120, 126) mounted to the workbench (102); a multi-axis robot (104) comprising an end effector (130) for holding an object; and a controller (106) configured to: control the robot (104) to move the object held by the end effector (130) relative to the one or more sensors (120, 126); control the one or more sensors (120, 126) to measure one or more physical properties of the object held by the end effector (130); and perform a validation process using the measurements taken by the one or more sensors (120, 126).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2019/051693

A. CLASSIFICATION OF SUBJECT MATTER

INV. G05B19/418 B25J9/00 B25J9/16
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)
G05B B25J

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)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2017/050308 A1 (CHARLTON CRAIG [US] ET AL) 23 February 2017 (2017-02-23)	1-3,6,7,9-12,15
Y	paragraph [0012] - paragraph [0055]; figures 4, 6	4,5,8
Y	----- WO 2017/163251 A2 (POLYGON T R LTD [IL]) 28 September 2017 (2017-09-28) page 16 - page 26 page 52 - page 59 page 60 - page 65; figures 17A - 17D	1-12
Y	----- CN 106 091 922 A (GUANGZHOU SMARTGIANT AUTOMATION TECH CO LTD) 9 November 2016 (2016-11-09) paragraphs [0008] - [0027] of the enclosed machine translation	1-12
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☒ 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

"&" document member of the same patent family

Date of the actual completion of the international search

21 October 2019

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2019/051693

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.:

1-12, 15

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: 1-12, 15

Workbench system (and corresponding method) with a robot controlled to hold and move an object and sensors controlled to identify the user, determine a task for the user based on his identity and perform a validation process on the object, the validation process being dependent on the determined task, characterized by the validation process.

2. claims: 13, 14

Workbench system with a robot controlled to hold and move an object and sensors controlled to identify the user, determine a task for the user based on his identity and perform a validation process, the validation process being dependent on the determined task, characterised in that it also contains a monitored container with compartments, for which an inventory is maintained.

INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2019/051693

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 2012/265345 A1 (NAKAHARA YOSHIMITSU [JP]) 18 October 2012 (2012-10-18) paragraph [0027] - paragraph [0045]; figure 1 -----	4,5,8

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2019/051693

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2017050308	A1	23-02-2017	NONE
WO 2017163251	A2	28-09-2017	CN 109219856 A 15-01-2019 US 2019105779 A1 11-04-2019 WO 2017163251 A2 28-09-2017
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US 2012265345	A1	18-10-2012	CN 102729253 A 17-10-2012 EP 2511054 A2 17-10-2012 JP 5382053 B2 08-01-2014 JP 2012223840 A 15-11-2012 US 2012265345 A1 18-10-2012