

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2019/008213

A. CLASSIFICATION OF SUBJECT MATTER

G08G 1/16(2006.01)i, G06K 9/00(2006.01)i

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)

G08G 1/16; B60K 28/02; B60K 28/06; B60Q 5/00; B60W 30/08; B60W 40/08; B60W 50/14; G06T 7/00; G06T 7/20; H04N 5/225; G06K 9/00

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

Korean utility models and applications for utility models: IPC as above

Japanese utility models and applications for utility models: IPC as above

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

eKOMPASS (KIPO internal) & Keywords: drive, safety, alert, lane, facial

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| X | KR 10-2011-0062651 A (HYUNDAI MOTOR COMPANY) 10 June 2011 See paragraphs [0019]-[0043] and figures 1-3b. | 1 |
| Y | | 2-7 |
| Y | KR 10-2012-0074820 A (DAESUNG ELECTRIC CO., LTD.) 06 July 2012 See paragraphs [0054] and [0058] and figures 4-5. | 2-7 |
| A | KR 10-2013-0053783 A (LG INNOTEK CO., LTD.) 24 May 2013 See paragraphs [0020]-[0045] and figure 1. | 1-7 |
| A | KR 10-2013-0052930 A (MANDO CORPORATION) 23 May 2013 See paragraphs [0036]-[0082] and figures 1-2. | 1-7 |
| A | KR 10-2018-0119258 A (MANDO-HELLA ELECTRONICS CORP.) 02 November 2018 See paragraphs [0073]-[0079] and figure 6. | 1-7 |



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

03 APRIL 2020 (03.04.2020)

Date of mailing of the international search report

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Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2019/008213

| Patent document cited in search report | Publication date | Patent family member | Publication date |
|--|------------------|----------------------|------------------|
| KR 10-2011-0062651 A | 10/06/2011 | KR 10-1500016 B1 | 09/03/2015 |
| KR 10-2012-0074820 A | 06/07/2012 | None | |
| KR 10-2013-0053783 A | 24/05/2013 | None | |
| KR 10-2013-0052930 A | 23/05/2013 | KR 10-1344885 B1 | 26/12/2013 |
| KR 10-2018-0119258 A | 02/11/2018 | DE 102017214353 A1 | 25/10/2018 |
| | | US 10369926 B2 | 06/08/2019 |
| | | US 2018-0304806 A1 | 25/10/2018 |