

# Boletín VT eDEPENDENCIA

3.º trimestre 2021

47

## Vigilancia Tecnológica

El Consejo de Europa define la **dependencia** como "la necesidad de ayuda o asistencia importante para las actividades de la vida cotidiana", o, de manera más precisa, como "un estado en el que se encuentran las personas que por razones ligadas a la falta o la pérdida de autonomía física, psíquica o intelectual, tienen necesidad de asistencia y/o ayudas importantes a fin de realizar los actos corrientes de la vida diaria y, de modo particular, los referentes al cuidado personal".

El presente boletín, elaborado por la Unidad de Información Tecnológica de la Oficina Española de Patentes y Marcas (OEPM), pretende revisar la evolución de la innovación, en el marco de las patentes de las tecnologías TIC en relación con aspectos tales como la accesibilidad de las personas mayores o con algún tipo de

discapacidad a las nuevas tecnologías de la información y comunicaciones, los dispositivos de ayuda a la movilidad física o la atención de personas en situación de dependencia a través de servicios de teleasistencia domiciliaria y monitorización remotas.

De este modo, el boletín, de periodicidad trimestral, recogerá las publicaciones más recientes de solicitudes internacionales de patentes (solicitudes PCT) publicadas en el trimestre inmediatamente anterior a su elaboración. Se ha restringido el ámbito de este boletín a solicitudes PCT por considerarse que al ser estas solicitudes con las que las empresas pretenden proteger sus invenciones en distintos países, se corresponden con invenciones de una cierta relevancia tecnológica.

### CONTENIDO:

- Accesibilidad a las nuevas tecnologías de la información
- Ayuda a la movilidad
- Teleasistencia sanitaria
- Otras referencias

NIPO: 116-19-012-2



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# Solicitudes de Patente Publicadas

Los datos que aparecen en la tabla corresponden a una selección de las solicitudes de patentes PCT publicadas durante el trimestre analizado. Se puede acceder al documento completo haciendo clic sobre el mismo.

## ACCESIBILIDAD A LAS NUEVAS TECNOLOGÍAS DE LA INFORMACIÓN

| Nº PUBLICACIÓN                   | SOLICITANTE                            | CONTENIDO TÉCNICO                                                                                           |
|----------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <a href="#">WO 2021178931 A1</a> | AVAYA MAN L P                          | Telecommunications soft client having a gui-less operating mode                                             |
| <a href="#">WO 2021175772 A1</a> | WIDEX AS                               | Method of fitting a hearing aid gain and a hearing aid fitting system                                       |
| <a href="#">WO 2021177068 A1</a> | PANASONIC IP MAN CO LTD                | Spatial control system                                                                                      |
| <a href="#">WO 2021175588 A1</a> | MAJCHRZYK HORACEK MATTHIAS             | Input device for use with a computer                                                                        |
| <a href="#">WO 2021175390 A1</a> | SATO HIROKI                            | Methods to assist verbal communication for both listeners and speakers                                      |
| <a href="#">WO 2021181223 A1</a> | IBM                                    | Intraoral device control system                                                                             |
| <a href="#">WO 2021181991 A1</a> | OMRON TATEISI ELECTRONICS CO           | Accessibility determination device, accessibility determination method, and program                         |
| <a href="#">WO 2021173841 A1</a> | STARKEY LABS INC                       | Ear-wearable hearing device                                                                                 |
| <a href="#">WO 2021172700 A1</a> | WADDLE CORP                            | System for blocking texts extracted from image, and method therefor                                         |
| <a href="#">WO 2021160977 A1</a> | VIKA BOOKS LTD                         | Instruction of a sign language                                                                              |
| <a href="#">WO 2021168333 A1</a> | FREEDOM SCIENTIFIC INC                 | Display for braille tablet                                                                                  |
| <a href="#">WO 2021166695 A1</a> | PANASONIC IP MAN CO LTD                | Oral function visualization system, oral function visualization method, and program                         |
| <a href="#">WO 2021131075 A1</a> | JAPAN ELEVATOR SERVICE HOLDINGS CO LTD | Occupant assistance device and occupant assistance program                                                  |
| <a href="#">WO 2021165683 A1</a> | MIURA SYSTEMS LTD                      | Touchscreen interface                                                                                       |
| <a href="#">WO 2021116760 A1</a> | ORCAM TECHNOLOGIES LTD                 | Wearable systems and methods for selectively reading text                                                   |
| <a href="#">WO 2021136096 A1</a> | ZTE CORP                               | Caption language identification method and apparatus, computer device, and computer-readable medium         |
| <a href="#">WO 2021142999 A1</a> | QINGDAO HISENSE MEDIA NETWORKS LTD     | Content-based voice broadcasting method and display device                                                  |
| <a href="#">WO 2021166638 A1</a> | SONY GROUP CORP                        | Control device, control method, and program                                                                 |
| <a href="#">WO 2021125449 A1</a> | OVERFLOW BIZ INC                       | Apparatus for enlarging and displaying screen and relaying same in real time, and operation method therefor |
| <a href="#">WO 2021168342 A1</a> | ALLERGAN INC                           | Systems, methods, and computer program products for vision assessments using a virtual reality platform     |
| <a href="#">WO 2021155023 A1</a> | UNIV CALIFORNIA                        | Method and wearable device for detecting and verbalizing nonverbal communication                            |
| <a href="#">WO 2021163418 A1</a> | UNIV FLORIDA                           | Human eyes design: first person vr characters for testing inclusive design solutions                        |
| <a href="#">WO 2021119211 A1</a> | VISU INC                               | Methods for color-blindness remediation through image color correction                                      |
| <a href="#">WO 2021140446 A1</a> | AGASHE MANDAR                          | An audio enabled transaction status verification system and a method thereof                                |
| <a href="#">WO 2021158886 A1</a> | GEORGIA TECH RES INST                  | Methods and systems to facilitate silent communication                                                      |
| <a href="#">WO 2021168249 A1</a> | DAY MICHAEL JOSEPH                     | Visual signaling system                                                                                     |

|                                         |                       |                                                                                                               |
|-----------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------|
| <a href="#"><u>WO 2021165759 A1</u></a> | COCHLEAR LTD          | Implantable tinnitus therapy                                                                                  |
| <a href="#"><u>WO 2021137250 A1</u></a> | KUDAI SURESH THACHOLI | 1hkeypad                                                                                                      |
| <a href="#"><u>WO 2021123850 A2</u></a> | MEDICONTUR KFT        | Computer implemented colour vision test and method of calibrating the computer implemented colour vision test |
| <a href="#"><u>WO 2021142242 A1</u></a> | FORMAT CIVIL ENG LTD  | Systems, and programs for visualization of auditory signals                                                   |
| <a href="#"><u>WO 2021142136 A1</u></a> | UNIV CALIFORNIA       | Embodied sound device and method                                                                              |

[...ver más](#)

## AYUDA A LA MOVILIDAD

| Nº PUBLICACIÓN                   | SOLICITANTE                                                                      | CONTENIDO TÉCNICO                                                                                                                                           |
|----------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">WO 2021178783 A1</a> | DILORENZO ROBERT L                                                               | Assistive ambulation systems                                                                                                                                |
| <a href="#">WO 2021178425 A1</a> | CAN MOBILITIES INC                                                               | Hybrid wheelchair                                                                                                                                           |
| <a href="#">WO 2021182264 A1</a> | SONY GROUP CORP                                                                  | Information processing device, information processing method, and information processing program                                                            |
| <a href="#">WO 2021176438 A1</a> | REHABIT TEC LTD                                                                  | Physiotherapy apparatus                                                                                                                                     |
| <a href="#">WO 2021178914 A1</a> | NORTHWELL HEALTH INC                                                             | System and method for determining user intention from limb or body motion or trajectory to control neuromuscular stimulation or prosthetic device operation |
| <a href="#">WO 2021181992 A1</a> | OMRON TATEISI ELECTRONICS CO                                                     | Movement supporting device, movement supporting method, and program                                                                                         |
| <a href="#">WO 2021124198 A1</a> | SCUOLA SUPERIORE DI STUDI UNIV E DI PERFEZIONAMENTO SANTANNA                     | Variable stiffness orthotic shell                                                                                                                           |
| <a href="#">WO 2021122432 A1</a> | COMMISSARIAT ENERGIE ATOMIQUE                                                    | Passive load balancer                                                                                                                                       |
| <a href="#">WO 2021174340 A1</a> | PROVA INNOVATIONS LTD                                                            | System and method for gait monitoring and improvement                                                                                                       |
| <a href="#">WO 2021158130 A2</a> | AL JADIDI AHMED                                                                  | Device for the quadriplegic of the electrical room appliances                                                                                               |
| <a href="#">WO 2021123472 A1</a> | UNIV ALICANTE                                                                    | Portable, flexible, robotic exoskeleton for a hand                                                                                                          |
| <a href="#">WO 2021117029 A1</a> | BRAINQ TECH LTD                                                                  | Treatment apparatus, systems and methods                                                                                                                    |
| <a href="#">WO 2021165929 A1</a> | UNIV DELLA CALABRIA                                                              | A device for the rehabilitation of limbs                                                                                                                    |
| <a href="#">WO 2021118383 A1</a> | FED GOSUDARSTVENNOE BIUDZHETNOE NAUCHNOE UCHREZHDENIE NAUCHNYI TSENTR NEVROLOGII | Method for the non-invasive stimulation of neuroplastic processes after stroke                                                                              |
| <a href="#">WO 2021124299 A1</a> | LITTWITZ ELON                                                                    | Walking assisting systems and methods                                                                                                                       |
| <a href="#">WO 2021120515 A1</a> | BEIJING AI ROBOTICS TECH CO LTD                                                  | Length-adjustable lower limb structure, and exoskeleton robot using same                                                                                    |
| <a href="#">WO 2021132325 A1</a> | NABTESCO CORP                                                                    | Electric braking mechanism-equipped vehicle, wheel unit, and control program for wheel unit                                                                 |
| <a href="#">WO 2021132324 A1</a> | NABTESCO CORP                                                                    | Electrically controlled vehicle                                                                                                                             |
| <a href="#">WO 2021132216 A1</a> | NABTESCO CORP                                                                    | Electric wheeled walking aid                                                                                                                                |
| <a href="#">WO 2021152523 A1</a> | MOVIT S R L                                                                      | Modular exoskeletal system                                                                                                                                  |
| <a href="#">WO 2021160967 A1</a> | WANDERCRAFT                                                                      | Methods for generating a trajectory of an exoskeleton and for setting the exoskeleton in motion                                                             |
| <a href="#">WO 2021148950 A1</a> | FONDAZIONE ST ITALIANO TECNOLOGIA                                                | Electromechanical clutch with articulated elements, for exoskeletons and wearable assistance devices in general                                             |
| <a href="#">WO 2021118388 A1</a> | MOSCOW INSTITUTE OF PHYSICS AND TECH                                             | Object handling system                                                                                                                                      |
| <a href="#">WO 2021127390 A1</a> | US GOV VETERANS AFFAIRS                                                          | Biofeedback system and methods of using same                                                                                                                |
| <a href="#">WO 2021171291 A1</a> | SEAMLESS VISION 2017 LTD                                                         | Self-navigating guide robot                                                                                                                                 |
| <a href="#">WO 2021166739 A1</a> | CYBERDYNE INC                                                                    | Wearable motion assist device,                                                                                                                              |
| <a href="#">WO 2021165908 A1</a> | BRIEL LOUWRENS JAKOBUS                                                           | Camera equipped cycle and coordinated punch exercise device and methods                                                                                     |
| <a href="#">WO 2021158316 A1</a> | SIEGEL LAUREN                                                                    | Smart walker system and method of use thereof                                                                                                               |
| <a href="#">WO 2021153084 A1</a> | SONY GROUP CORP                                                                  | Guidance device, guidance method, and program                                                                                                               |

|                                         |                    |                                                                                            |
|-----------------------------------------|--------------------|--------------------------------------------------------------------------------------------|
| <a href="#"><u>WO 2021163153 A1</u></a> | UNIV ARIZONA STATE | Hip exoskeleton for lifting and pushing                                                    |
| <a href="#"><u>WO 2021158769 A1</u></a> | DIGNITY HEALTH     | Systems and methods for a surgical positioning exoskeleton system                          |
| <a href="#"><u>WO 2021148880 A1</u></a> | XR HEALTH IL LTD   | Systems for dynamic assessment of upper extremity impairments in virtual/augmented reality |
| <a href="#"><u>WO 2021131185 A1</u></a> | GAMAKATSU CO LTD   | Assistance device                                                                          |

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## TELEASISTENCIA SANITARIA

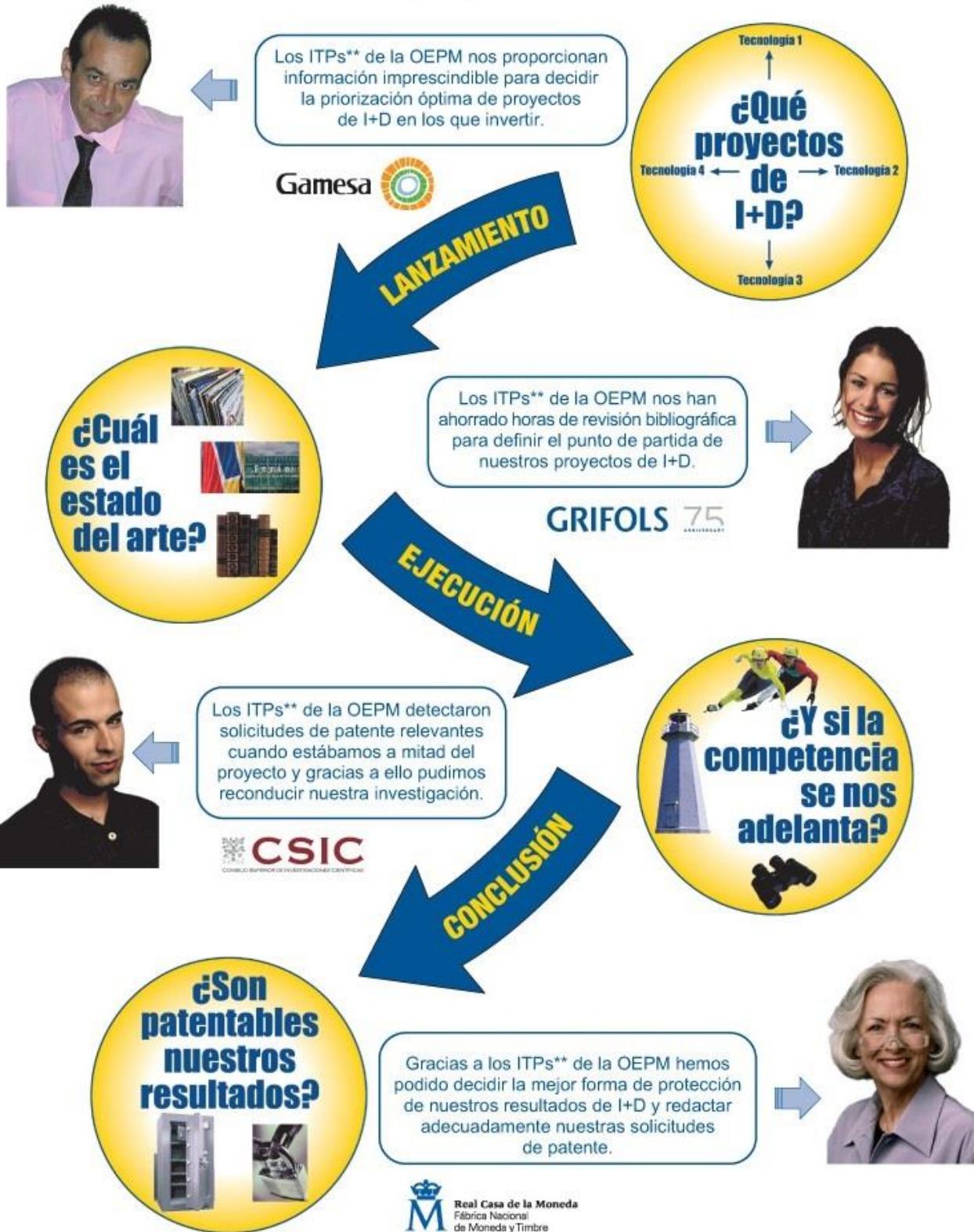
| Nº PUBLICACIÓN                   | SOLICITANTE                         | CONTENIDO TÉCNICO                                                                                                                                                             |
|----------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">WO 2021110466 A1</a> | KONINKLIJKE PHILIPS NV              | Monitoring a patient with chronic obstructive pulmonary disease                                                                                                               |
| <a href="#">WO 2021174229 A2</a> | RAVEN MICHAEL                       | Method and apparatus for patient monitoring                                                                                                                                   |
| <a href="#">WO 2021137110 A1</a> | DRAEGERWERK AG & CO KGAA            | A modular connector system and a modular connector having two or more detachably secured housings                                                                             |
| <a href="#">WO 2021144033 A1</a> | SIVANTOS PTE LTD                    | Method for operating a hearing aid                                                                                                                                            |
| <a href="#">WO 2021144373 A1</a> | WIDEX AS                            | A method of estimating a hearing loss, a hearing loss estimation system and a computer readable medium                                                                        |
| <a href="#">WO 2021165702 A1</a> | MCLAREN APPLIED LTD                 | Healthcare analytics                                                                                                                                                          |
| <a href="#">WO 2021153537 A1</a> | TAKA KYOKO                          | Urine volume estimation device, methods for estimating urine volume and estimating urination timing, and programs for estimating urine volume and estimating urination timing |
| <a href="#">WO 2021151172 A1</a> | ZIRA D O O                          | System and method of multichannel recording and digital analysis of respiratory sounds at different levels of inspiratory load                                                |
| <a href="#">WO 2021135863 A1</a> | HUAWEI TECH CO LTD                  | Image recognition method and device                                                                                                                                           |
| <a href="#">WO 2021160702 A1</a> | UNAIDE                              | Assistance system and method in particular for vulnerable persons                                                                                                             |
| <a href="#">WO 2021132270 A1</a> | SUNSTAR INC                         | Chewing support system                                                                                                                                                        |
| <a href="#">WO 2021163285 A1</a> | ALIGN TECHNOLOGY INC                | At home progress tracking using phone camera                                                                                                                                  |
| <a href="#">WO 2021127348 A1</a> | DARROH STEVEN                       | Voice training therapy app system and method                                                                                                                                  |
| <a href="#">WO 2021142834 A1</a> | SHENZHEN XIN KINGBRAND ENTPR CO LTD | Emergency call method, terminal device, and server                                                                                                                            |
| <a href="#">WO 2021148322 A1</a> | KONINKLIJKE PHILIPS NV              | System and method for assessing strength using wearable sensors                                                                                                               |
| <a href="#">WO 2021164655 A1</a> | AIPHAS CO                           | System for determining and notifying abnormal high-temperature of field                                                                                                       |
| <a href="#">WO 2021144933 A1</a> | ND SOFTWARE CO LTD                  | Data input support device                                                                                                                                                     |
| <a href="#">WO 2021144931 A1</a> | ND SOFTWARE CO LTD                  | Data input assisting device                                                                                                                                                   |
| <a href="#">WO 2021132786 A1</a> | MINDS LAB INC                       | System for processing training data of human care robot for elderly                                                                                                           |
| <a href="#">WO 2021132269 A1</a> | SUNSTAR INC                         | Chewing assistance system                                                                                                                                                     |
| <a href="#">WO 2021144930 A1</a> | ND SOFTWARE CO LTD                  | Data-input assisting device                                                                                                                                                   |
| <a href="#">WO 2021148538 A1</a> | WIDEX AS                            | Method of operating an in-situ fitting system and an in-situ fitting system                                                                                                   |
| <a href="#">WO 2021140722 A1</a> | OTTA INC                            | Emergency communication system                                                                                                                                                |
| <a href="#">WO 2021138655 A1</a> | SMOLARZ JOSEPH RYAN                 | Wireless audio transmitter and receiver bone device using bone conduction                                                                                                     |
| <a href="#">WO 2021153680 A1</a> | EQUOS RES CO LTD                    | Video compression device, detection device, video compression program, and detection program                                                                                  |
| <a href="#">WO 2021149319 A1</a> | NEC SOLUTION INNOVATORS LTD         | Health management device, health management method, health management system, program, and recording medium                                                                   |
| <a href="#">WO 2021146748 A1</a> | ACUCELA INC                         | Database of retinal physiology derived from ophthalmic measurements performed by patients                                                                                     |

[..ver más](#)

## OTRAS REFERENCIAS

| Nº PUBLICACIÓN                   | SOLICITANTE                   | CONTENIDO TÉCNICO                                                                                                   |
|----------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <a href="#">WO 2021170825 A1</a> | BODE CHEMIE GMBH              | Computer-implemented method and system for monitoring hand hygiene compliance                                       |
| <a href="#">WO 2021165601 A1</a> | CHABLOZ ORTHOPEDIE            | Limb prosthesis                                                                                                     |
| <a href="#">WO 2021162213 A1</a> | CREPLE CO LTD                 | Comprehensive thinking ability learning tool                                                                        |
| <a href="#">WO 2021144572 A1</a> | THE UNIV OF DUNDEE            | Stretchable sensor                                                                                                  |
| <a href="#">WO 2021161836 A1</a> | HOP LLC                       | Simple eyesight assist tool                                                                                         |
| <a href="#">WO 2021130799 A1</a> | CARING CO LTD                 | All-weather walking stick                                                                                           |
| <a href="#">WO 2021158903 A1</a> | UAB RES FOUND                 | Retinal vascular stress test for diagnosis of vision-impairing diseases                                             |
| <a href="#">WO 2021162948 A1</a> | MASSACHUSETTS INST TECHNOLOGY | Variable compression body anchor                                                                                    |
| <a href="#">WO 2021161719 A1</a> | PANASONIC IP MAN CO LTD       | Nursing care equipment provision assistance system, nursing care equipment provision assistance method, and program |
| <a href="#">WO 2021138892 A1</a> | THIRD REALITY INC             | Intelligent switch panel and intelligent remote control switch system                                               |
| <a href="#">WO 2021165718 A1</a> | KHAN AHMADI NIKOO             | Electronic safety belt at high altitudes to prevent injury and shock                                                |
| <a href="#">WO 2021162555 A1</a> | ACADEMISCH ZIEKENHUIS LEIDEN  | Apparatus for prevention of apnea                                                                                   |
| <a href="#">WO 2021143842 A1</a> | YANG FENG                     | Graded diagnosis and treatment platform, system and method                                                          |
| <a href="#">WO 2021137749 A1</a> | AKRIBIS SYSTEMS PTE LTD       | Method and devices for measuring viscosity of liquid foods                                                          |
| <a href="#">WO 2021154643 A1</a> | LANKENAU INST MEDICAL RES     | Device for mitigation of personal injuries due to falls                                                             |

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