

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 remota.

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

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 |
|----------------------------------|---|---|
| WO 2022187917 A1 | DE ALMEIDA DOUGLAS SANTOS | Signing system for persons with an impairment |
| WO 2022214955 A1 | PILOU COMPANY LTD | Media file play game |
| WO 2022209043 A1 | RAISE THE FLAG CO LTD | Ambient environment information transmission device |
| WO 2022188998 A1 | REBER ANDRE | Portable viewing aid |
| WO 2022207472 A1 | GLASSOMER GMBH | Device and method for shifting a fluid within a fluid channel, use of the device, and tactile display |
| WO 2022201799 A1 | SONY GROUP CORP | Information processing device, information processing method, and program |
| WO 2022200844 A1 | ERICSSON TELEFON AB L M | Systems and methods for labeling and prioritization of sensory events in sensory environments |
| WO 2022206477 A1 | HUAWEI TECH CO LTD | Input method and terminal |
| WO 2022198142 A1 | MINDPORTAL INC | Systems and methods involving devices that detect mind/brain activity |
| WO 2022228432 A1 | LEONG MUN HOONG | Machine learning based hearing assistance system |
| WO 2022257956 A1 | IBM | Digital microfluidics-based braille actuation in a stretchable display |
| WO 2022235834 A1 | DISNEY ENTPR INC | Accessibility enhanced content creation |
| WO 202221106 A1 | SNAP INC | Enabling the visually impaired with ar using force feedback |
| WO 2022226125 A1 | LI QIONG | A system and method for group communication and information sharing |
| WO 2022229550 A1 | STREETLAB | Device for measuring the visual ability to move |
| WO 2022229566 A1 | COMMISSARIAT ENERGIE ATOMIQUE | Haptic reading device implementing the braille-perkins method |
| WO 2022235831 A1 | DISNEY ENTPR INC | Distribution of sign language enhanced content |
| WO 2022235835 A1 | DISNEY ENTPR INC | Accessibility enhanced content delivery |
| WO 2022235836 A1 | DISNEY ENTPR INC | Accessibility enhanced content rendering |
| WO 202218846 A1 | WIDEX AS | A hearing estimation system |
| WO 2022235416 A1 | DISNEY ENTPR INC | Emotion-based sign language enhancement of content |
| WO 2022195379 A1 | COCHLEAR LTD | Auditory rehabilitation for telephone usage |
| WO 202212053 A1 | UNIV LELAND STANFORD JUNIOR | Photovoltaic retinal prosthesis with optically configurable confinement of electric field |
| WO 202218093 A1 | GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP LTD | Audio signal compensation method and apparatus, earphone, and storage medium |
| WO 2022226961 A1 | HUAWEI TECH CO LTD | Hearing monitoring method and hearing monitoring apparatus |
| WO 2022238981 A1 | K P PRASOBH | Refreshable braille display system |
| WO 2022239357 A1 | UBITONE INC | Finger braille device |
| WO 2022243489 A1 | SOUNDUCT | Bone conduction hearing aid |
| WO 2022254432 A1 | LIVNE NIMROD YAAKOV | A sign language translation method and system thereof |
| WO 2022240907 A1 | VISA INT SERVICE ASS | Multi-factor authentication system and method |
| WO 2022234891 A1 | YOUNGWOOT CO LTD | Braille tape |

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AYUDA A LA MOVILIDAD

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|----------------------------------|---|---|
| WO 202216201 A1 | ARJO IP HOLDING AB | A patient transfer device |
| WO 2022199986 A1 | KAPCARE SA | Device and method for detecting a movement or stopping of a movement of a person or of an object in a room, or an event relating to said person |
| WO 2022195718 A1 | PIONEER CORP | Route data processing device, route data processing method, and program for processing route data |
| WO 2022200989 A1 | FONDAZIONE ST ITALIANO TECNOLOGIA | Powered exoskeleton joint |
| WO 2022208188 A1 | METALCO ACTIVE S R L | Equipment for outdoor fitness and related kit |
| WO 2022266154 A1 | MITSCHKE LARRY | System for assisting a mobility-impaired individual and methods of use |
| WO 2022263762 A1 | HUMAN MECHANICAL TECH | Trunk exoskeleton comprising mechanical coupling assembly for enabling/disabling assistance |
| WO 2022200296 A1 | MADE FOR MOVEMENT GROUP AS | Assistive movement training apparatus for the disabled |
| WO 2022234446 A1 | FONDAZIONE ST ITALIANO TECNOLOGIA | Elastic balancing of loads in an exoskeleton |
| WO 2022238095 A1 | GBS GERMAN BIONIC SYSTEMS GMBH | Method for contactless monitoring of an extremity in an exoskeleton, and exoskeleton |
| WO 202219119 A1 | GERMAN BIONIC SYSTEMS GMBH | Quick coupling for an exoskeleton and exoskeleton system comprising a quick coupling |
| WO 2022254346 A1 | MIKAI S P A | External fixing system for an orthopaedic exoskeleton |
| WO 2022233981 A1 | IMP COLLEGE INNOVATIONS LTD | Echolocation systems |
| WO 202225235 A1 | SAMSUNG ELECTRONICS CO LTD | Method and device for measuring muscular fitness of user by using wearable device |
| WO 2022245218 A1 | X TR AS | System and method for training of a user |
| WO 2022235300 A1 | TENCENT AMERICA LLC | Vision-based motion capture system for rehabilitation training |
| WO 2022249138 A1 | FONDAZIONE ST ITALIANO TECNOLOGIA | Method for determining the torque to be delivered by the motorised joints of a lower limb exoskeleton during walking of a subject with locomotor deficits |
| WO 2022246029 A1 | NOVANTA CORP | Position encoder with fusion of different sensor types |
| WO 2022249111 A1 | NEUROLUTIONS INC | Stroke rehabilitation therapy predictive analysis |
| WO 2022254367 A1 | BIOLIFT TECH INC | Exoskeleton to be worn by a subject |
| WO 2022240377 A2 | TB TEKNOLOJI SANAYI VE TICARET ANONIM SIRKETI | Carrier body structure used in exoskeleton |
| WO 2022241218 A1 | THE US GOV AS REPRESENTED BY THE DEPARTMENT OF VETERANS AFFAIRS | Wheelchair with multi-axis passive-active suspension actuation |
| WO 202214824 A1 | MIICARE LTD | Mobility analysis |
| WO 2022247325 A1 | UBTECH ROBOTICS CORP LTD | Navigation method for walking-aid robot, and walking-aid robot and computer-readable storage medium |
| WO 2022255948 A2 | AI KAIGO PTE LTD | Patient transport apparatus |

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TELEASISTENCIA SANITARIA

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| | | |
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| WO 2022186308 A1 | UNIV KEIO | Sensor device |
| WO 2022191221 A1 | UNIV HOKKAIDO NAT UNIV CORP | Organism health state analysis system and organism health state analysis method |
| WO 2022271807 A1 | DIGITAL DENTAL TECH LLC | Systems and methods for providing oral devices using at-home dental impression kits |
| WO 2022204300 A1 | STROMA MEDICAL CORP | Systems and methods for patient alignment and treatment |
| WO 2022189137 A1 | BIOTRONIK SE & CO KG | Closed loop device setting adjustment for medical devices |
| WO 2022195529 A1 | SENSEDAT S R L | Device for predicting the wearing-off conditions in a patient affected by parkinson's disease |
| WO 2022190142 A1 | BE ST S R L | A system for detecting, recognizing and combating acts of physical violence or physical harm. |
| WO 2022196214 A1 | YAZAKI CORP | Monitoring system |
| WO 2022204775 A1 | NICOLI FILHO MARIO | System and device for acquiring and presenting data by optical reading of data from target products with immediate submission and cross-analysis with data set by user interface and method implemented by said system |
| WO 2022198058 A1 | GHODRATI ALIREZA | System, apparatus, and methods for health monitoring |
| WO 2022208930 A1 | HITACHI GLOBAL LIFE SOLUTIONS INC | Monitoring device, monitoring method, and monitoring program |
| WO 2022200743 A1 | DOC2U | Device for measuring a plurality of physiological parameters |
| WO 2022190006 A1 | UNIV KING ABDULLAH SCI & TECH | Central blood pressure estimation based on photoplethysmography data |
| WO 2022208586 A1 | NEC CORP | Notification device, notification system, notification method, and non-transitory computer-readable medium |
| WO 2022212432 A1 | TOYOTA MOTOR NORTH AMERICA INC | Methods and systems for identifying service providers and providing services |
| WO 2022196213 A1 | YAZAKI CORP | Watch-over system |
| WO 2022201642 A1 | HITACHI LTD | Action analysis device and method |
| WO 2022220846 A1 | KENZEN INC | Personalized schedules for displaying to a user participating in activity |
| WO 2022224167 A1 | CHAMOUN TONY | Device and system for improving care on subjects on medical devices |
| WO 2022225679 A1 | BARD PERIPHERAL VASCULAR INC | Wearable device for monitoring fluid overload with built-in sensors |
| WO 2022232108 A1 | ALIGN TECHNOLOGY INC | Smartphone dental imaging attachment apparatus |
| WO 2022236105 A1 | SLEEP NUMBER CORP | Bed having features for estimating core body temperatures from sensing of cardiac parameters and external temperature |
| WO 2022203753 A1 | FRESENIUS MEDICAL CARE HOLDINGS INC | Home dialysis supplies delivery robot, network, and method |
| WO 202221770 A1 | KONIKU INC | Exhaled breath and liquid sample analyzer and methods |
| WO 2022220358 A1 | SEO HYOUN WOO | Smart bidet for providing health condition monitoring and care services |
| WO 2022224621 A1 | PANASONIC IP MAN CO LTD | Healthy behavior proposing system, healthy behavior proposing method, and program |
| WO 2022223676 A1 | OXYPOINT NV | System for identifying a condition of a user |
| WO 2022240765 A1 | MASIMO CORP | Optical physiological nose sensor |
| WO 2022240580 A1 | BOSTON SCIENT NEUROMODULATION CORP | Remote titration of neurostimulation therapy |
| WO 2022204554 A1 | UMANA MEDICAL TECH LTD | Multifunctional electrophysiological monitoring system |
| WO 2022189946 A1 | COCHLEAR LTD | System and method for wireless communications with a medical implant |
| WO 2022223368 A1 | BIOTRONIK SE & CO KG | A dialogue-based medical decision system |
| WO 2022201041 A1 | DRAKOS NICHOLAS D P | Photoplethysmography derived blood pressure measurement capability |
| WO 2022231678 A1 | MEDTRONIC INC | Response by robotic device to an acute health event reported by medical device |
| WO 2022249189 A1 | ESSENCE SMARTCARE LTD | Emergency call capable system |

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| WO 2022249300 A1 | MITSUBISHI ELECTRIC CORP | Passenger information transmission system, transmission device, guidance device, and passenger information transmission method |
| WO 2022241020 A1 | TIDI PRODUCTS LLC | Patient monitoring system and method |
| WO 2022241790 A1 | BOE TECHNOLOGY GROUP CO LTD | Information acquisition method and apparatus, information providing method and apparatus, and information exchange method and apparatus |
| WO 2022231988 A1 | SAFEBEAT RX INC | System for remote drug monitoring and titration |
| WO 2022251729 A1 | TATE TECH LLC | Inflatable cervical collar neck system |
| WO 2022249296 A1 | NIPPON TELEGRAPH & TELEPHONE | Information processing method, information processing system, and program |
| WO 2022241311 A1 | UNIV NEW YORK | Smart wearable iot device for health tracking, contact tracing and prediction of health deterioration |
| WO 2022245891 A1 | UNIV NOVA SOUTHEASTERN | Reducing adverse health events in assisted living |
| WO 2022212925 A2 | BODIGUIDE INC | Monitoring changes in volume and properties of human interstitial fluid and electro-mechanical design of an optical device to accomplish the same |
| WO 2022249101 A2 | SMALL BONE LENGTHENING LLC | Bone elongating devices and methods of use |
| WO 2022236333 A2 | PLENOPTIKA INC | Eye examination method and system |

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OTRAS REFERENCIAS

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|----------------|-------------|-------------------|
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| | | |
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| WO 2022191687 A1 | ARAGON HAN DANIEL | Modular cardiopulmonary resuscitation training device, simulating the thoracic characteristics of persons of different ages and of other animal species, and method for the manufacture thereof |
| WO 2022206292 A1 | WU WEIDONG | Intelligent toileting-assisted scooter and matching toilet |
| WO 2022198563 A1 | UNIV HUBEI TECHNOLOGY | Dressing and undressing device for person having double disabled arms |
| WO 202221442 A1 | UNIV CALIFORNIA | Spinal cord stimulation for conditioning respiratory muscles |
| WO 202219811 A1 | NEC CORP | Visit schedule creation method |
| WO 2022235026 A1 | LIM CHEOL SOO | Floor traffic light linked with pedestrian traffic light |
| WO 2022240289 A1 | AMAZEC PHOTONICS IP B V | Obtaining cardiovascular and/or respiratory information from the mammal body |
| WO 2022238986 A1 | DIPLO D LTD | Automated audio-feedback computerized system and method for artificial intelligence (ai) --controlled eye exercise |
| WO 2022245768 A1 | ACTIPULSE NEUROSCIENCE INC | Major depressive disorder or persistent depressive disorder prevention or treatment with low intensity and high frequency magnetic stimulation |
| WO 2022256747 A1 | NANOVISION BIOSCIENCES INC | High visual acuity, high sensitivity light switchable neural stimulator array for implantable retinal prosthesis |
| WO 2022251666 A2 | CARBON HOLDINGS INTELLECTUAL PROPERTIES LLC | System and methods for analyzing biosensor test results |

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