

# PATENTES

Eduardo Ros Vidal

# Contenido

- Propiedad Intelectual y Propiedad Industrial.
- Definición de Patente.
- Motivación del sistema de patentes.
- ¿qué se puede patentar y qué no?
- Proceso de solicitud de la patente.
- Modelo de patente.
- Coste estimado del proceso de solicitud de la patente.
- Retribución de licencia de patente. Modelos y valorización.
- Búsqueda de patentes. Herramientas y modos de utilización.

# Propiedad Industrial y Propiedad Intelectual

En España:

- La Propiedad Industrial protege todas las creaciones que están relacionadas con la industria: patentes y modelos de utilidad, signos distintivos y diseños.

Por lo general, es necesario el registro

- La Propiedad Intelectual se reserva para la protección de las creaciones del espíritu en las que queda plasmada la personalidad del autor, tratándose de creaciones únicas y no producidas industrialmente o en serie.

No es necesario el registro

Fuente: OEPM

# Propiedad Industrial y Propiedad Intelectual

|                       |   |  |                    |                      |
|-----------------------|---|--|--------------------|----------------------|
| Propiedad Industrial  | Invenciones                                     | Patentes                                 | Secreto Industrial |                      |
|                       |   | Modelos de Utilidad                      |                    |                      |
|                       |   | Variedades Vegetales                     |                    |                      |
|                       |   | Topografías de Productos Semiconductores |                    |                      |
|                       | Signos Distintivos                              | Marcas                                   |                    |                      |
|                       |   | Nombres Comerciales                      |                    |                      |
|                       |   | Nombres de Dominio                       |                    |                      |
|                       | Creaciones Estéticas                            | Diseños Industriales                     |                    |                      |
| Propiedad Intelectual | Creaciones literarias, artísticas y científicas | Derechos de Autor                        |                    | ¿Secreto Industrial? |
|                       | Software  |  |                    |                      |
|                       | Bases de Datos                                  | Derecho “sui generis”                    |                    |                      |

# Patente

- **Definición:** (Wikipedia) Una patente es un conjunto de derechos exclusivos concedidos por un Estado al inventor de un nuevo producto o tecnología, susceptibles de ser explotados comercialmente por un período limitado de tiempo (20 años), a cambio de la divulgación de la invención. El registro de la patente constituye la creación de un monopolio de manera artificial, y se enmarca dentro de la propiedad industrial, que a su vez forma parte del régimen de propiedad intelectual.
- Contrato entre la sociedad y el inventor:
  - Incentivo para inventar: El inventor recibe los derechos de explotación durante un período (20 años).
  - Incentivo para compartir el conocimiento. Publica los detalles de la invención.
- **Invención patentable:**
- Nuevas (novedad). No está en el estado de la técnica y no se ha divulgado anteriormente.
- Susceptible de aplicación industrial o aplicaciones personales.

MANTENER EL SECRETO !!!!!!!

CONFIDENCIAL !!!!!!!!!!!

PATENTAR ANTES DE PUBLICAR !!!!!!!

# “Contrato Social” del sistema de patentes

El inventor está interesado en obtener un beneficio (personal) de su invención.

Por su parte, la sociedad está interesada en...

- fomentar la innovación para que se fabriquen productos mejores y se empleen métodos de producción mejorados en beneficio de todos;
- proteger a las nuevas empresas innovadoras para que puedan competir con grandes empresas establecidas en orden a mantener competitiva la economía;
- conocer los datos sobre nuevas invenciones para que otros ingenieros y científicos puedan mejorarlas aún más;
- promover la transferencia de tecnologías (por ejemplo, desde las universidades hacia la industria).

Fuente: OEPM

# ¿Qué no se puede patentar?

Los siguientes elementos no se consideran invenciones en la concepción de patentes europeas:

- Descubrimiento de teorías científicas (como la propiedad de un material) y métodos matemáticos. Pero si que se puede patentar su utilidad uso práctico de dicha propiedad, tal descubrimiento constituirá una invención y entonces sí será patentable.
- Creaciones artísticas.
- Los planes, principios y métodos para el ejercicio de actividades intelectuales, para juegos o para actividades económicas.
- Programas de ordenador. Pero si que es patentable cuando está integrado con el ordenador que provoca un “efecto técnico”.
- Formas de presentar informaciones (como anuncios, señales de tráfico, indicadores, etc).
- Invenciones cuya explotación comercial sea contraria al orden público o a las buenas costumbres son particularmente importantes en el ámbito de la biotecnología (procedimientos de clonación de seres humanos, etc).
- Variedades vegetales o razas animales (así como procesos esencialmente biológicos)
- Métodos de tratamiento quirúrgico, terapéutico o métodos de diagnóstico.

# ¿Qué derechos concede la patente?

- Derecho a evitar que terceros exploten comercialmente una invención sin autorización.
- La patente protege la invención otorgando a su titular el derecho a impedir que cualquiera reproduzca o utilice la invención sin su consentimiento.
- Los derechos de la patente europea son los mismos que confieren las patentes nacionales concedidas en cada Estado contratante para el que haya sido concedida.
- Plazo máximo 20 años (aunque puede haber extensiones excepcionales). Desde la fecha de prioridad (primer depósito de solicitud de patente).



# ¿Dónde puede solicitarse una patente?

- **Oficinas nacionales de patentes** (Oficina Española de Patentes y Marcas OEPM)
  - Las patentes nacionales sólo son válidas en el país en el que se solicitan.
  - Derecho de “prioridad” de 12 meses para solicitudes internacionales.
- **Oficina Europea de Patentes (OEP)**
  - La “patente europea” equivale a una patente nacional en los países en los que se conceda.
  - El solicitante elige los países (equivalente a solicitar la patentes en diversos países pero simplificando en proceso de solicitud).
  - El coste depende el número de países designados.
- **Tratado de Cooperación en materia de Patentes** (Patent Cooperation Treaty, PCT)
  - Una única solicitud para todos los países del tratado PCT (más de 150 en la actualidad).
  - Tras la fase internacional, la solicitud internacional da lugar a múltiples procedimientos de examen de patentes nacionales
  - Las costosas decisiones de patentes pueden demorarse hasta 30 meses tras la presentación de la solicitud.
  - No existen patentes internacionales (sólo un procedimiento internacional de solicitud de patentes).
  - La solicitud PCT puede presentarse en una oficina de patentes nacional, en la OEP o en la OMPI.

Fuente: OEPM

# Ámbito de la patente

Patent Cooperation Treaty. (PCT).

- El **PCT no es un procedimiento de concesión de patentes** similar a los establecidos en las leyes nacionales de patentes, sino que el PCT establece un sistema internacional en el que de manera uniforme se desarrollan una serie de actos y trámites, **pero son los Estados designados los que finalmente conceden o deniegan la solicitud.**

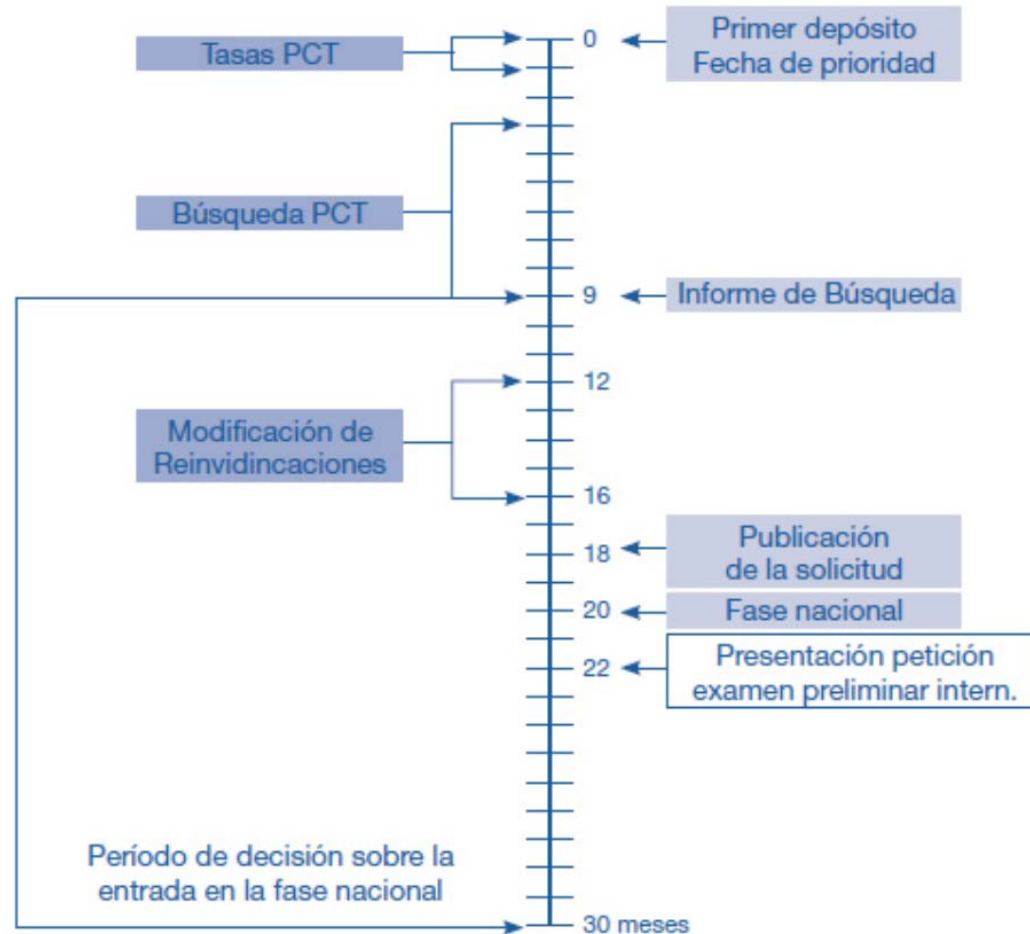
Las dos fases son las siguientes:

- 1ª) **La FASE INTERNACIONAL**, en la que intervienen la Oficina receptora, la Oficina Internacional de la Organización Mundial de la Propiedad Intelectual (OMPI), la Administración encargada de la búsqueda internacional y, en su caso, la Administración encargada del examen preliminar internacional. **Esta fase se puede desarrollar ante la Oficina Española de Patentes y Marcas.**
- 2ª) **La FASE NACIONAL**, que tiene lugar ante las oficinas nacionales de los Estados designados o elegidos.

Dicho esquema le permite al solicitante retrasar el comienzo de la tramitación de su solicitud en cada una de las Oficinas designadas, hasta un plazo de treinta meses desde la fecha de prioridad.

Fuente: (<http://www.oepm.es/cs/OEPMSite/contenidos/Folletos/07-proteccion-internacional-invenciones.html>)

# Plazos de solicitud de patente. Ejemplo primer depósito



# Contenido de una patente

- Descripción de la invención
  - Resumen del estado de la técnica
  - Descripción de la invención
  - Problema que trata de resolver
- Una o varias reivindicaciones (lo que se quiere proteger)
- Dibujos a los que se refieran en la descripción o en las reivindicaciones
- Un resumen (unas 150 palabras para utilizarse en las herramientas de búsqueda).

## [54] MULTI-DIRECTIONAL SWITCH

[75] Inventor: Ichiro Shirai, Kyoto, Japan

[73] Assignee: Nintendo Co., Ltd., Kyoto, Japan

[21] Appl. No.: 764,514

[22] Filed: Aug. 9, 1985

## Related U.S. Application Data

[63] Continuation of Ser. No. 521,116, Aug. 5, 1983, abandoned.

[51] Int. Cl. .... H01H 25/00

[52] U.S. Cl. .... 273/148 B; 273/1 E;

200/5 A; 200/339

[58] Field of Search .... 200/5 A, 6 A, 159 A,

200/159 B, 339, 340, 241; 273/85 G, 148 B

[56] References Cited

## U.S. PATENT DOCUMENTS

3,005,055 10/1961 Mattke .  
 3,852,557 12/1974 Brown ..... 200/339  
 3,996,427 12/1976 Kaminski .  
 4,018,999 4/1977 Robinson et al. .... 200/306  
 4,029,915 6/1977 Ojima .  
 4,124,787 11/1978 Aamoth et al. .  
 4,246,452 11/1981 Chandler ..... 200/6 A  
 4,256,931 3/1981 Palisek .  
 4,341,383 7/1982 Reichert ..... 273/85 G  
 4,355,483 10/1982 Korzeilus ..... 200/159 B  
 4,395,134 7/1983 Luce .

## OTHER PUBLICATIONS

Digital Joystick Switch, vol. 21, No. 12, May 1979, IBM Technical Disclosure Bulletin.

Primary Examiner—Richard C. Pinkham  
 Assistant Examiner—MaryAnn Scott Lastova  
 Attorney, Agent, or Firm—Christensen, O'Connor,  
 Johnson & Kindig

## [57] ABSTRACT

A four-directional switch which can be turned on and off in four directions, which comprises a base plate having a plurality of electrodes formed thereon, a key top having an indication showing predetermined four pressing directions in an identifiable manner, a support member constituting a fulcrum between the base plate and the key top, a plurality of conductive rubbers disposed opposing to the plurality of electrodes so as to be in electrical contact with corresponding ones of the electrodes, and a sustaining member having the plurality of conductive rubbers fixed thereto and having elastic force for sustaining the conductive rubbers so as not to be in contact with the electrodes when the key top is not pressed.

11 Claims, 7 Drawing Figures

Inventores

Institución o persona solicitante

Códigos de Clasificación de Patentes

Estado del la técnica

Descripción de la invención

Reivindicaciones (lo que se protege)

Resumen Breve

Dibujos ilustrativos

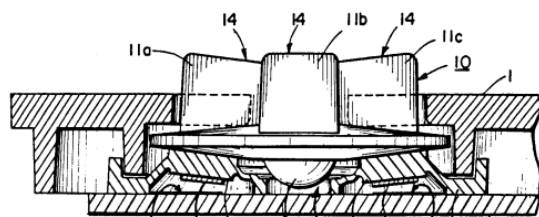


FIG. 1A

FIG. 1B

FIG. 1C

FIG. 1D

FIG. 1E

FIG. 1F

FIG. 1G

4,687,200

1

## MULTI-DIRECTIONAL SWITCH

This application is a continuation in application based on prior pending Application Ser. No. 521,116, filed Aug. 5, 1983, now abandoned.

## BACKGROUND OF THE INVENTION

1. Field of the Invention  
 The present invention relates to a multi-directional switch, and particularly relates to, for example, a multi-directional switch in which on-off operation of multiple contacts is dependent on the pressing directions of the switch.

2. Description of the Prior Art  
 FIG. 1 is a perspective view showing an example of a hand-held type game playing apparatus using a conventional character moving switch which constitutes the background of the present invention. Referring to FIG. 1, a body 1 comprises a liquid crystal display plate 2. The liquid crystal plate 2 comprises a plurality of characters formed with transparent electrodes so that a predetermined character is displayed according to development of a game or in response to operation of character moving switches 4a to 4d. The characters 3a, 3b, 3c and 3d illustrated in the drawing are selectively displayed by operation of character moving switches 4a, 4b, 4c and 4d. More particularly, the character 3a is displayed responsive to operation of the character moving switch 4a, the character 3b is displayed responsive to operation of the character moving switch 4b, the character 3c is displayed responsive to operation of the character moving switch 4c and the character 3d is displayed responsive to operation of the character moving switch 4d. Accordingly, by operating optionally the character moving switches 4a to 4d, a display is made as if characters 3a to 3d were moving. The body 1 further comprises game switches 5 and 6 for giving instructions to start a game of different difficulty and a current time switch 7 for giving instructions to indicate the current time.

As described above, the conventional character moving switches 4a to 4d are provided corresponding to the characters 3a to 3d, that is, corresponding to the moving directions of the characters. The character moving switches 4a and 4b are provided in the vicinity of the left end of the body 1, and the character moving switches 4c and 4d are provided in the vicinity of the right end of the body 1. Accordingly, if one plays a game with a hand-held type game playing apparatus in his hands, the character moving switches 4a and 4b must be operated with the left hand, and the character moving switches 4c and 4d must be operated with the right hand. Thus, it is very difficult to operate two switches with one hand and other two switches with the other hand. As a result, one must take a great care in operation of the character moving switches 4a and 4b, which makes the game dull. On the other hand, if a larger number of character moving switches are provided to increase character moving directions, more variety will be given to the game, so that one will not easily get bored with it. Thus, in using conventional character moving switches, there is a disadvantage that either variety of a game or simplicity in operation must be disregarded.

In order to eliminate the above described disadvantage, the character moving switches 4a to 4d might be disposed collectively in a certain position in the body 1

so that one can operate them with one hand. However, such collective disposition will encounter another problem in that two or more than two character moving switches are often pressed simultaneously. Conversely, this means that the character moving switches 4a to 4d must be separated from each other with a certain distance. Accordingly, space for positioning the character moving switches 4a to 4d should be made larger, and consequently sufficient space cannot be provided for display of the liquid crystal display plate 2. As a result, the content of a game organized in the liquid crystal display plate 2 has to be limited.

In the foregoing, the disadvantages of character moving switches used in a hand-held type game playing apparatus was explained. However, the same disadvantages or problems as described above are also found in various conventional apparatus where control for selection of modes or moving directions is made by means of switches, if switches are provided corresponding to the modes or moving directions.

## SUMMARY OF THE INVENTION

Therefore, a primary object of the present invention is to provide a multi-directional switch which can be operated with efficiency in a simplified manner and does not occupy much space for fixing.

The present invention, briefly, has a distinctive feature in that a plurality of conductive members are disposed to be opposed to a plurality of electrodes formed on a base plate and, by pressing in either direction a key top having predetermined multiple pressing directions provided in an identified manner, a corresponding conductive member is brought into contact with associated electrodes, and thus the pressing direction of the key top serves as an important factor.

In accordance with the present invention, switching on and off of multiple contacts composed of a plurality of electrodes formed on a base plate can be performed with one hand and as a result, operation can be made much more easily as compared with conventional apparatus. Furthermore, since only a single key top is provided, it takes up little space for fixing.

These object and other objects, features, aspects and advantages of the present invention will become more apparent from the following detailed description of the present invention when taken in conjunction with the accompanying drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing an example of a hand-held type game playing apparatus using conventional character moving switches which constitute the background of the present invention;

FIG. 2 is a perspective view showing an example of a hand-held type game playing apparatus using a character moving switch in which the present invention is embodied;

FIG. 3 is a sectional view showing installation of a character moving switch 8;

FIG. 4 is a front view showing a key top 10;

FIG. 5A is a sectional view of a sustaining member 20;

FIG. 5B is a bottom view of a sustaining member 20;

FIG. 6 is a sectional view showing another embodiment of the present invention.

almost the same operation as formed.

FIG. 6 is a sectional view of the present invention. The embodiment shown in FIG. 6 has the same structure as that in the embodiment shown in FIGS. 2 to 5B, except for the below described points, and like the same reference numerals are denoted by the same reference numerals. More particularly, while the description in FIG. 6 is characterized in that a key top 10 is the embodiment shown in FIGS. 2 to 5B are integrally formed as a unitary structure. More particularly, a key top 100 is made of elastic material such as rubber 110 corresponding to the key top 10 of the above described embodiment and a conductive rubber sustaining member 20 of the above described embodiment. In the portion 110, that is, the upper portion of the key top 10, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 120, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 130, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 140, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 150, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 160, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 170, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 180, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 190, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 200, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 210, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 220, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 230, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 240, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 250, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 260, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 270, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 280, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 290, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 300, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 310, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 320, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 330, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 340, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 350, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 360, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 370, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 380, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 390, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 400, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 410, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 420, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 430, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 440, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 450, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 460, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 470, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 480, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 490, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 500, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 510, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 520, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 530, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 540, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 550, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 560, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 570, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 580, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 590, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 600, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 610, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 620, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 630, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 640, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 650, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 660, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 670, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 680, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 690, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 700, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 710, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 720, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 730, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 740, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 750, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 760, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 770, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 780, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 790, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 800, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 810, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 820, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 830, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 840, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 850, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 860, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 870, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 880, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 890, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 900, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 910, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 920, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 930, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 940, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 950, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 960, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 970, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 980, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 990, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 1000, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above.

FIG. 6 is a sectional view of the present invention. The embodiment shown in FIG. 6 has the same structure as that in the embodiment shown in FIGS. 2 to 5B, except for the below described points, and like the same reference numerals are denoted by the same reference numerals. More particularly, while the description in FIG. 6 is characterized in that a key top 10 is the embodiment shown in FIGS. 2 to 5B are integrally formed as a unitary structure. More particularly, a key top 100 is made of elastic material such as rubber 110 corresponding to the key top 10 of the above described embodiment and a conductive rubber sustaining member 20 of the above described embodiment. In the portion 110, that is, the upper portion of the key top 10, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 120, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 130, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 140, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 150, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 160, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 170, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 180, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 190, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 200, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 210, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 220, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 230, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 240, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 250, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 260, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 270, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 280, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 290, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 300, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 310, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 320, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 330, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 340, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 350, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 360, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 370, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 380, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 390, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 400, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 410, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 420, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 430, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 440, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 450, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 460, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 470, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 480, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 490, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 500, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 510, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 520, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 530, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 540, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 550, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 560, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 570, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 580, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 590, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 600, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 610, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 620, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 630, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 640, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 650, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 660, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 670, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 680, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 690, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 700, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 710, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 720, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 730, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 740, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 750, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 760, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 770, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 780, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 790, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 800, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 810, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 820, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 830, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 840, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 850, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 860, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 870, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 880, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 890, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 900, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 910, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 920, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 930, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 940, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 950, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 960, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 970, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 980, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 990, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above. In the portion 1000, four conductive rubbers 30a to 30d are attached in the same manner as in the embodiment described above.

## What is claimed is:

1. A multi-directional switch which can be actuated in multiple directions by a depressing action with the tip of a finger of an operator, said multi-directional switch comprising:  
 (a) a base member;  
 (b) an integral key member disposed above said base member, said key member including a plate portion and a manipulation portion extending upwardly from said plate portion, said manipulation portion having a downwardly concave upper surface for receiving a fingertip of the operator, said plate portion having a generally planar bottom surface that is sloped upwardly relative to said base member.

described above is performed in the direction extending radially outwardly from a central portion of said bottom surface;

(c) a plurality of electrodes disposed on said base member, said electrodes having generally planar contact surfaces;

(d) a deformable sustaining member composed of flexible, resilient material, said sustaining member;

(e) a plurality of electrically conductive members having generally planar contact surfaces, said electrically conductive members mounted on said sustaining member and carried by said sustaining member at locations above a corresponding electrode;

(f) a support member extending downwardly from a central portion of the lower surface of said key member, said support member integrally formed with said key member and constituting a fulcrum between said key member and said base member; and

(g) whereupon when said key member is depressed and tilted downwardly about said support member by use of a fingertip of the operator, the substantially planar bottom surface of said key member presents a generally planar bearing area against the adjacent region of said underlying sustaining member, thereby to temporarily deform said underlying sustaining member and simultaneously push a corresponding conductive member, being carried by said sustaining member, downwardly into face-to-face contact with its corresponding electrode.

2. The multi-directional switch according to claim 1, wherein said key member includes indicia located on the manipulation portion of said key member, said indicia corresponding to the particular conductive member that is placed in contact with its associated electrode when the corresponding portion of said key member on which said indicia is located is tilted downwardly about said support member.

3. The multi-directional switch according to claim 1, adapted for use in a hand-held type game apparatus having characters displayed on a display, wherein the game apparatus is played by controlling the movement of the characters about the display by tilting said key member downwardly at the portion of said key member corresponding to the desired direction of movement of the characters.

4. A multi-directional switch according to claim 1, wherein said multi-directional switch is housed within a casing, said casing having an opening formed therein for exposing the manipulation portion of said key member.

5. A multi-directional switch according to claim 1, wherein said key member includes a plurality of protrusions extending outwardly from a central portion of said key member, each of said protrusions having an upper surface sloped upwardly along the length of said protrusion in the



# Robot system, method for controlling a robot system, and processing system

## Abstract

The invention relates to a **robot** system (1), to a corresponding method, and to a processing system, wherein, along a process line (2, 19, 22, 26), which is formed by guide rails (20, 23), or on a conveyor belt (6), objects (4, 10, 11, 15) or workpieces are optionally moved or transported on carrier devices (5, 12, 14) having gripping elements (13, 16). The **robot** arm (7) removes the objects (4, 10, 11, 15) from the process line by pulling or pushing the objects from a plane or surface of the process line into a working chamber (17) compliantly, i.e., in a non-rigid manner by means of force control, wherein the objects are positioned and oriented in the working chamber by means of guiding elements (18). After the processing of the objects (4, 10, 11, 15) in the working chamber (7), the objects are pushed or pulled back onto the process line (2, 19, 22, 26) by means of the **robot** arm (7). The process line (2, 19, 22, 26) can comprise passive, non-driven rollers or the like instead of an actively driven conveyor belt (6), wherein the **robot** arm (7) nudges or pushes the objects (4, 10, 11, 15) in order to transport the objects.

## Classifications

- [B25J9/0093](#) Programme-controlled manipulators co-operating with conveyor means
- [B25J9/1633](#) Programme controls characterised by the control loop compliant, force, torque control, e.g. combined with position control
- [B25J9/1679](#) Programme controls characterised by the tasks executed
- [G05B19/4182](#) Total factory control, i.e. centrally controlling a plurality of machines, e.g. direct or distributed numerical control [DNC], flexible manufacturing systems [FMS], integrated manufacturing systems [IMS], computer integrated manufacturing [CIM] characterised by the

WO2017153504A1

WIPO (PCT)



Download PDF



Find Prior Art



Similar

Other languages: [German](#), [French](#)

Inventor: [Prof. Dr. Sami HADDADIN](#)

### Worldwide applications

2016 • [DE](#) 2017 • [KR](#) [EP](#) [JP](#) [CN](#) [US](#) [WO](#) [SG](#)

### Application PCT/EP2017/055499 events ⓘ

2016-03-08 • Priority to DE102016002812.2A

2016-03-08 • Priority to DE102016002812.2

2017-03-08 • Application filed by KBee AG

2017-09-14 • Publication of WO2017153504A1

Info: [Patent citations \(7\)](#), [Non-patent citations \(1\)](#), [Cited by \(3\)](#), [Legal events](#), [Similar documents](#), [Priority and Related Applications](#)

Ro

Abs

The

when

belt

(5, 1

from

into

when

elen

obje

The

acti

15)

Clas

■ B25J9/0093 - Programme-controlled manipulators co-operating with conveyor means

Illustrative example of subject matter classified in

EP 0512126

[Search](#) [Add to query](#) from Cooperative Patent Classification

Broader

[B - PERFORMING OPERATIONS; TRANSPORTING](#)

[B25 - HAND TOOLS; PORTABLE POWER-DRIVEN TOOLS; MANIPULATORS](#)

[B25J - MANIPULATORS; CHAMBERS PROVIDED WITH MANIPULATION DEVICES](#)

[B25J9/00 - Programme-controlled manipulators](#)

g system

WO2017153504A1

WIPO (PCT)



Download PDF



Find Prior Art



Similar

Other languages: [German](#), [French](#)

Inventor: [Prof. Dr. Sami HADDADIN](#)

Worldwide applications

2016 • [DE](#) 2017 • [KR](#) [EP](#) [JP](#) [CN](#) [US](#) [WO](#) [SG](#)

Application PCT/EP2017/055499 events ⓘ

2016-03-08 • Priority to DE102016002812.2A

2016-03-08 • Priority to DE102016002812.2

2017-03-08 • Application filed by KBee AG

2017-09-14 • Publication of WO2017153504A1

Info: [Patent citations \(7\)](#), [Non-patent citations \(1\)](#), [Cited by \(3\)](#), [Legal events](#), [Similar documents](#), [Priority and Related Applications](#)

■ [B25J9/0093](#) Programme-controlled manipulators co-operating with conveyor means

■ [B25J9/1633](#) Programme controls characterised by the control loop compliant, force, torque control, e.g. combined with position control

■ [B25J9/1679](#) Programme controls characterised by the tasks executed

■ [G05B19/4182](#) Total factory control, i.e. centrally controlling a plurality of machines, e.g. direct or distributed numerical control [DNC], flexible manufacturing systems [FMS], integrated manufacturing [CIM] characterised by the

<https://patents.google.com/?q=colaborative+robot&q=B25J9%2f0093>



## 4 465 results found

List view

List content

Sort by

Text only ▼

All ▼

Relevance ▼



(0 patents selected)

Select the first 20 results



1. Mutual collision avoidance method for collabor...

CN110568845A • 2019-12-13 • UNIV GUANGDONG...

Earliest priority: 2019-08-26 • Earliest publication: 20...

...The invention provides a mutual collision avoidance method for collaborative robots, which comprises the following steps: acquiring position, speed and acceleration information of



2. AUTONOMOUS ROBOT AND COOPERATIVE...

JP2009199359A • 2009-09-03 • FUKUDA TOSHIO

Earliest priority: 2008-02-21 • Earliest publication: 20...

PROBLEM TO BE SOLVED: To provide autonomous robots for performing working in cooperation with a plurality of autonomous robots while considering working time in a



WO2014128493A1 COLLABORATING ROBOTS

Available in ▼

Patent Translate ▼



### Bibliographic data ▼

#### Classifications

IPC

B25J9/00;

CPC

B25J9/009 (EP,GB); B25J9/1682 (GB);

Priorities

GB201303255A·2013-02-25

Application

GB2014050528W·2014-02-21

Publication

WO2014128493A1·2014-08-28

Published as

WO2014128493A1;GB2525549A



## CPC - B25J9/009



| Classification symbol | Title and description   |  |
|-----------------------|---|--|
| <b>B</b>              | <b>PERFORMING OPERATIONS; TRANSPORTING</b>  |  |
|                       | <b>SHAPING</b>  |  |
| <b>B25</b>            | <b>HAND TOOLS; PORTABLE POWER-DRIVEN TOOLS; MANIPULATORS</b>  |  |
| <b>B25J</b>           | <b>MANIPULATORS; CHAMBERS PROVIDED WITH MANIPULATION DEVICES</b> ({manipulators specially adapted for use in surgery <a href="#">A61B 34/70</a> ; manipulators used in cleaning hollow articles <a href="#">B08B 9/04</a> ; manipulators associated with rolling mills <a href="#">B21B 39/20</a> ; manipulators associated with forging machines <a href="#">B21J 13/10</a> ; {manipulators associated with picking-up and placing mechanisms <a href="#">B23P 19/007</a> ; means for holding wheels or parts thereof <a href="#">B60B 30/00</a> ; {vehicles with ground-engaging propulsion means, e.g. walking members <a href="#">B62D 57/02</a> , <a href="#">B62D 57/032</a> ; devices for picking-up and depositing articles or materials between conveyors <a href="#">B65G 47/90</a> , <a href="#">B65G 47/91</a> ; manipulators with gripping or holding means for transferring packages <a href="#">B65H 67/065</a> ; cranes <a href="#">B66C</a> ; {manipulators used in the protection or supervision of pipe-line installations <a href="#">F17D 5/00</a> ; walking equipment adapted for nuclear steam-generators <a href="#">F22B 37/006</a> ; manipulators specially adapted for, or associated with, nuclear reactors <a href="#">G21C</a> ; {apparatus used for handling wafers during manufacture or treatment of semiconductor <a href="#">H01L 21/68</a> }) |  |
| <b>B25J 9/00</b>      | <b>Programme-controlled manipulators</b>  |  |
| <b>B25J 9/0084</b>    | • {comprising a plurality of manipulators}  |  |
| <b>B25J 9/009</b>     | •• {being mechanically linked with one another at their distal ends}  |  |

# Ejemplo. Derechos de propiedad intelectual e industrial de un teléfono móvil



- **Marcas:**

- Fabricado por “Nokia”
- Modelo “N95”
- Software “Symbian”, “Java”

- **Patentes:**

- Métodos de proceso de datos
- Circuitos semiconductores (Chips)
- Compuestos químicos
- ...

- **Secretos comerciales**

- ????

- **Derechos de Autor:**

- Código Software
- Manual de Instrucciones
- Tonos de llamada
- ...

- **Diseños (algunos de ellos registrados):**

- Forma del Teléfono en su conjunto
- Diseño de las teclas en forma oval
- Forma de onda tridimensional de los botones
- ...

# Ejemplo de combinación de patente y marca

- **Dolby Laboratories.** “Empresa pionera en la tecnología de reducción de ruidos en la década de 1960. Utilizaron una combinación de:
  - patentes para proteger la tecnología
  - marcas para transmitir a los consumidores que Dolby constituía un indicador de calidad.

Así fue como una pequeña empresa en fase inicial logró hacer negocios con grandes empresas ya establecidas y se convirtió en una empresa de alta tecnología, con un éxito cada vez mayor.”

Las patentes se consideran un activo empresarial esencial intangible en la economía del conocimiento.

# Otros ejemplos

- Harry Potter

No es patente, es Propiedad Intelectual. La autora J.K. Rowling (titular de todos los derechos de PI vinculados a Harry Potter)

Única persona autorizada para escribir la segunda parte del libro,

Ha ganado unos 750 millones de euros en concepto de Derechos de autor.

- Cámara instantánea

Kodak tuvo que indemnizar a Polaroid con 550 millones de euros por utilizar ilícitamente las invenciones patentadas de esta última.

- Proceso de reproducción del ADN

Esta tecnología, galardonada con el premio Nobel, fue patentada y la PATENTE se vendió por 190 millones de euros.

# Ejemplo de patente solicitada por la Universidad

- La Universidad es la titular de toda la propiedad intelectual e industrial que se genere en sus laboratorios/instalaciones.
- Los inventores académicos participan de los rendimientos económicos.
- La Oficina de Transferencia de Investigación (OTRI) facilita los procesos de solicitud y posterior explotación.

# Costes aproximados de solicitud de una patente (sólo a modo orientativo)

- Solicitud de patente a nivel nacional incluyendo honorarios de agente de patentes. Se dan 12 meses de prioridad. Coste: Unos 5.000 € hasta aquí.
- Extensión PCT (antes de 12 meses). Coste: Unos 12.000 € hasta aquí.
- Se solicitan patentes nacionales (por ejemplo en oficinas nacionales: China, Sudáfrica, Europa y EEUU). Además se desarrolla prueba de concepto (PoC) y se realizan gestiones para promover su explotación. Coste: 25.000 € hasta aquí (muy variable dependiendo de coste de PoC y promoción).
- Y el proceso continua protegiendo en otros países ... y el coste se incrementa, aún sin ingresos de explotación hasta que no se licencia por parte de una empresa (licencia o creación de empresa spin-off). Coste: 35.000 € hasta aquí (muy variable dependiendo del coste de abogados para contrato de licencia, constitución de empresa, etc).

# Valorización de un invento o una patente

**Retribución al licenciante:** Regalías (Royalties). Fijas o variables (respecto a hitos, volumen, etc).

## **Valorización del activo intangible (invento)**

- El invento patentado aumenta el valor por el elemento de derecho de explotación (protección)
- Métodos basados en coste de invención (inversión realizada y necesaria).
- Métodos basados en Mercado (estudios de mercado)
- Métodos basados en ingresos/beneficios relacionados. Relacionado con la eficiencia o valor añadido del proceso.
- Métodos basados en comparables (casos similares de regalías conocidas)
- Métodos subjetivos. Varias empresas competidoras por la licencia.

# Bases de Datos de Patentes

- **Espacenet.** Herramienta de la EPO (European Patent Office). <https://worldwide.espacenet.com/>
- **Google Patents.** <http://www.google.com/patents>
- **LENS.** <https://www.lens.org/>

Sugerencia:

*Google Patents* para búsquedas rápidas y sencillas.

*Espacenet* para búsquedas más estructuradas utilizando también códigos CPC o CIP.

*LENS* para la extracción rápida de gráficos, evolución de número de patentes, etc; información visual fácilmente interpretable.

Además existen otras bases de datos de otras regiones y países.

Hoy día el número de patentes anuales es muy grande ( más de 1 millón/año). Esto es un desafío para las empresas que se esfuerzan en evitar vulnerar las patentes de otras empresas.



# Clasificación técnica de Patentes

La **Clasificación Internacional de Patentes (CIP o IPC en inglés)**, establecida por el Arreglo de Estrasburgo de 1971, constituye un sistema jerárquico de símbolos que no dependen de idioma alguno para la **clasificación** de las **patentes** y los modelos de utilidad con arreglo a los distintos sectores de la tecnología a los que pertenecen. Luego surge una clasificación más específica en Europa (ECLA).

(más información en [https://www.wipo.int/export/sites/www/tisc/es/doc/patent\\_classification\\_advantages.pdf](https://www.wipo.int/export/sites/www/tisc/es/doc/patent_classification_advantages.pdf))

Desde 2013 se impone la CPC como sistema unificado EU y USA (se parece mucho al ECLA, por lo tanto los códigos CPC debe tener buena correspondencia con los previos CIP).

El sistema de **Clasificación Cooperativa de Patentes (CPC, Cooperative Patent Classification)**, en vigor desde el 1 de enero 2013, es un sistema bilateral desarrollado conjuntamente por la OEP (EU) y la USPTO (US). Combina las mejores prácticas de clasificación de ambas oficinas.

# Clasificación de Patentes

- CPC. Cooperative Patent Classification:

- Section (one letter A to H and also Y)

- Class (two digits)

- Subclass (one letter)

- Group (one to three digits)

- Main group and subgroups (at least two digits)

- Esto permite buscar de forma estructurada patentes en campos específicos.

# Búsqueda de patentes

- Posibles metodologías (sólo sugerencias):
  - Búsqueda de una patente específica utilizando algún dato (como el inventor o la empresa que realizó la solicitud, tipo de patente, año, etc).
    - En este caso se puede utilizar de forma sencilla Google Patents o Espacenet para localizar la patente que busca y descargar el pdf si es conveniente.
  - Búsqueda de patentes en un campo para evaluar si es un campo activo en cuanto al número de solicitudes de patentes que se realizan cada año.
    - En este caso puede ser conveniente utilizar LENS para ver de forma gráfica la evolución de las patentes en un campo o el número de patentes de alguna empresa o país. Puede ser útil para generar de forma sencilla informes sobre campos de innovación intensiva.

# Búsqueda de patentes

- Posibles metodologías (sólo sugerencias):
  - Búsqueda de patentes en nuestro campo para evaluar si algo que hemos realizado o pensado es patentable (y definir el grado de innovación diferencial con respecto a las patentes ya existentes).
  - Determinar si algo que queremos explotar tiene algún conflicto con alguna patente existente.

En estos casos puede ser conveniente:

- A. comenzar buscando con “palabras clave”, que definan el invento que queremos comprobar si está patentado ya.
- B. Identificar patentes similares a lo que queremos patentar. Apuntar los CPC de patentes similares para definir “el espacio de nuestra invención”.
- C. Finalmente realizar búsquedas más específicas utilizando estos CPC para evaluar si existen patentes similares a lo que queremos “patentar” aunque utilicen otros términos (palabras clave).

# Discusión

- Propiedad Intelectual y Propiedad Industrial.
- Definición de Patente.
- Motivación del sistema de patentes.
- ¿qué se puede patentar y qué no?
- Proceso de solicitud de la patente.
- Modelo de patente.
- Coste estimativo del proceso de solicitud de la patente
- Retribución de licencia de patente. Modelos y valorización.
- Búsqueda de patentes. Herramientas y modos de utilización.