

US 20080196140A1

(19) United States

(12) Patent Application Publication Mayerson et al.

(10) **Pub. No.: US 2008/0196140 A1**(43) **Pub. Date:** Aug. 21, 2008

(54) THERMOREGULATED RECREATIONAL GARMENT

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(21) Appl. No.: 12/032,282

(22) Filed: Feb. 15, 2008

Related U.S. Application Data

(60) Provisional application No. 60/890,123, filed on Feb. 15, 2007.

Publication Classification

(51) Int. Cl.

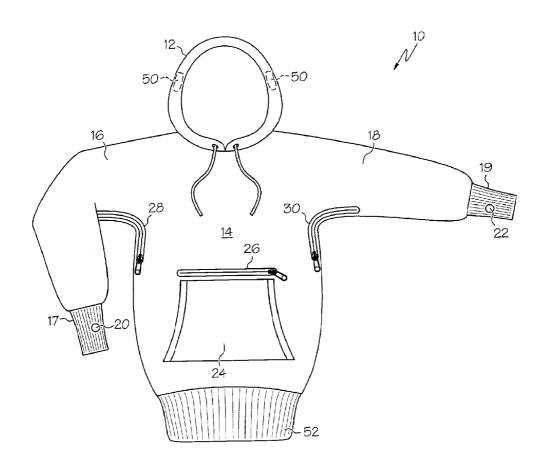
(76) Inventors:

A41D 3/08 (2006.01) **A41D 3/02** (2006.01) **A41D 27/20** (2006.01) **A41D 1/00** (2006.01)

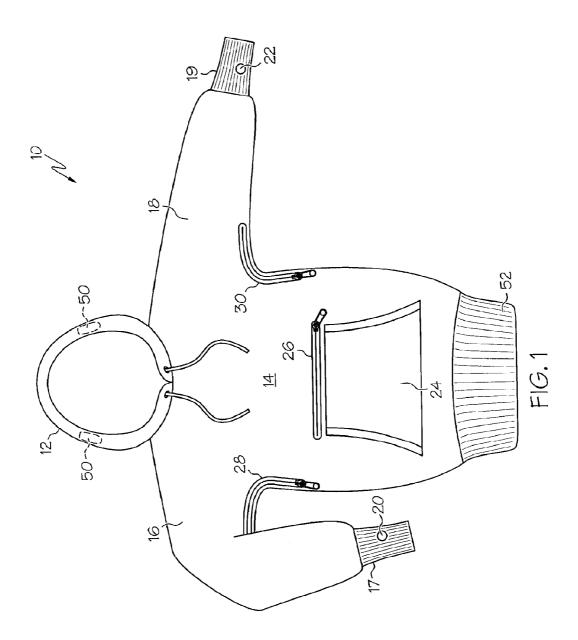
(52) **U.S. Cl.** **2/84**; 2/85; 2/93; 2/247; 2/69

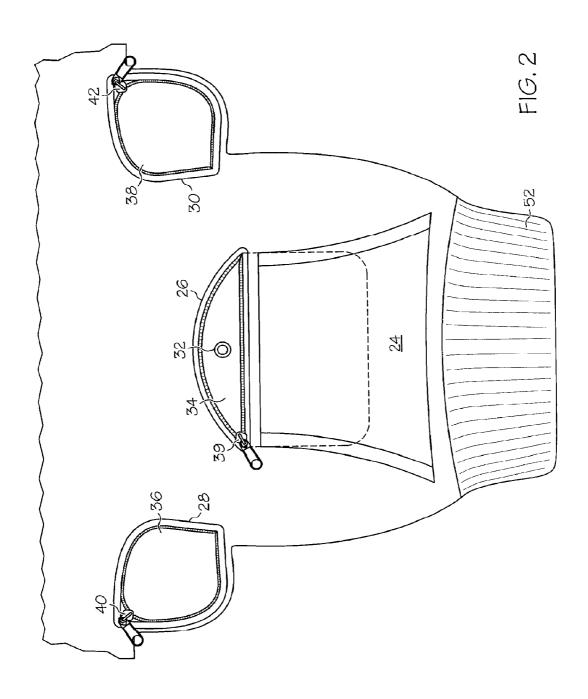
(57) ABSTRACT

A thermoregulated recreational garment includes a front pouch with side entry openings for warming or resting the hands therein during periods of inactivity, a front pocket located behind the front pouch, and two side ventilation openings. The two side ventilation openings are adapted for quick venting and cooling of the body, typically after periods of strenuous activity when a lot of body heat is built up inside the garment. The torso section also can include long sleeves with extended cuffs and thumb holes to allow the user to slide their thumbs therethrough so that the cuffs cover the user's wrists during cold weather outdoor activities. The front pocket is adapted to hold an audio device, and typically an opening such as a grommet or eyelet is fitted through the back wall of the front pocket to provide access for headphone wires. The front pocket is sized adequately so excess wire length can be carried within it, thereby avoiding tangling, even during periods of heavy exercise and rapid arm movements, such as during skiing or snowboarding.









THERMOREGULATED RECREATIONAL GARMENT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Application No. 60/890,123, filed Feb. 15, 2007.

FIELD OF THE INVENTION

[0002] The present invention relates to body garments, and more specifically to a recreational body garment having ventilation openings for thermoregulation and pockets adapted to receive and hold an audio listening device while exercising.

BACKGROUND OF THE INVENTION

[0003] Body garments including jackets, pants, body suits, and the like are often provided with specially configured openings that allow additional amounts of air to flow through the garment. These openings, generally referred to as vents, are often adjustable between opened and closed positions so that a wearer may control the flow of air through the garment depending on the surrounding conditions. In this regard, ventilated garments are distinguished from garments made of perforated fabrics or other highly breathable materials. Known closure devices such as zippers, hook and loop closures, buttons, and the like are often used to selectively close and open the vents. Ventilated garments are particularly appropriate for certain types of activities, such as skiing, snowboarding, skateboarding, sledding, ice skating, snowmobiling, snowshoeing, running, and the like.

[0004] U.S. Pat. No. 2,715,226 (Weiner), U.S. Pat. No. 4,608,715 (Miller et al.), U.S. Pat. No. 5,642,526 (Thompson), and U.S. Pat. No. 7,171,695 (Braun) all disclose types of ventilated garments which are useful for thermoregulation. However, none of these garments are specifically intended for use during highly active sports such as skiing, snowboarding or skateboarding, none of them are specifically designed for a hooded sweatshirt or "hoody," and none of them include a means for safely storing and listening to an audio device while exercising or performing a specific activity.

[0005] It has become a common practice for those engaged in strenuous exercise to listen to a personal source of audio while exercising. Such sources typically include an MP3 player such as an iPod®, a disc player, or a radio receiver adapted to be mounted to the persons arm, carried in a pocket in the garment, or hooked to the person's belt. Typically headphones are also worn by the person exercising so as not to disturb others nearby, and the headphones are connected to the audio source by a length of wire or cable.

[0006] U.S. Pat. No. 4,825,471 (Jennings) and U.S. Pat. No. 6,826,782 (Jordan) disclose garments adapted for use with a personal audio device; however they are not intended for use during highly athletic activities such as skiing or snowboarding, and they do not include ventilation openings for thermoregulation during exercise.

[0007] Thus, while certain prior art garments may be useful for their intended purposes, there still exists a need for a functional, thermoregulated, recreational garment with features that do not appreciably alter the look of a typical pullover sweat shirt. It would also be advantageous to provide a garment having ventilation openings to readily provide quick cooling of the user's body while wearing the garment, an elongated bottom portion that fits snugly and securely about

the wearer's pelvis for warmth and comfort, and a pocket adapted to receive and safely secure valuables such as an audio device, so the wearer can maintain a comfortable temperature and listen to their favorite music while participating in various activities, such as skiing, snowboarding, and skateboarding.

SUMMARY OF THE INVENTION

[0008] The present invention generally provides an improved recreational garment which includes functional side vents for quick venting of heat from within, a front hand-warmer pouch, long sleeves with extended cuffs and thumb holes at the end of each sleeve, and a front pocket which lies behind the front pouch for holding valuables such as a personal audio device. Typically the garment is in the form of a hooded pullover sweatshirt (i.e. "hoody") which can be worn as a top layer of clothing during periods of athletic activity, such as by snowboarders and skateboarders. The main body of the garment is typically made with a warm outer layer and a moisture-wicking inner layer.

[0009] More specifically, a first aspect of the invention provides a recreational garment, comprising: (a) a hood adapted to receive and cover the head of the user; (b) a front pouch; (c) a front pocket located behind the front pouch; (d) right and left sleeves for receiving the arms of the user, each of the sleeves comprising extended cuffs, the cuffs including thumb holes adapted to allow the user to slide their thumbs therethrough; (e) a bottom portion adapted to extend below and fit securely about the user's waist; (f) a right side ventilation opening adapted to be reversibly opened and closed for venting of the garment; and (g) a left side ventilation opening adapted to be reversibly opened and closed for venting of the garment.

[0010] A second aspect of the invention provides a thermoregulated recreational garment comprising: (a) a torso section adapted to cover the torso of a user and including a front pouch, a front pocket located behind the front pouch, a right side ventilation opening, and a left side ventilation opening; (b) right and left sleeves attached to the torso section and adapted to receive the arms of the user, each of the sleeves comprising extended cuffs, the cuffs including thumb holes adapted to allow the user to slide their thumbs therethrough; (c) a hood attached to the torso section and adapted to receive and cover the head of the user; and (d) a bottom portion adapted to extend below and fit securely about the user's waist, wherein the front pocket includes a lining sized to receive an audio device, the front pocket lining including an opening for providing access for headphone wires, and wherein the two side ventilation openings are adapted to be reversibly opened and closed by the user for venting of the garment.

[0011] A third aspect of the invention provides a thermoregulated recreational garment comprising a torso section adapted to cover the torso of a user, the torso section comprising a front pouch, a front pocket located behind the front pouch, a right side ventilation opening, and a left side ventilation opening, wherein the front pocket includes a lining sized to receive an audio device, the front pocket lining including an opening for providing access for headphone wires, and wherein the two side ventilation openings are adapted to be reversibly opened and closed by the user for venting of the garment.

[0012] The nature and advantages of the present invention will be more fully appreciated from the following drawings, detailed description and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The accompanying drawings illustrate embodiments of the invention and, together with a general description of the invention given above, and the detailed description given below, serve to explain the principles of the invention.

[0014] FIG. 1 is a perspective view of one embodiment of the garment of the present invention.

[0015] FIG. 2 is an enlarged partial view of the garment of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

[0016] Referring now to the figures in which like reference characters designate identical or corresponding parts throughout the several views, and more particularly to FIGS. 1-2, the garment according to the present invention is generally identified by the numeral 10.

[0017] FIG. 1 illustrates one embodiment of the garment of the invention in the form of a pullover sweatshirt or hoody 10. The pullover 10 typically includes a hood 12 connected to a torso section 14 having a right sleeve 16 and a left sleeve 18. The sleeves 16, 18 are typically long sleeves with extended or elongated cuffs 17, 19 that are adapted to cover the wrist and lower hand of the user. Thumb holes 20, 22 are typically incorporated into the cuffs 17, 19, and allow the user to slide their thumbs therethrough to secure the cuffs over the wrists. The torso section 14 also includes a front pouch 24 with side openings for warming or resting the hands therein during periods of inactivity. A front pocket has an opening 26 just above the front pouch 24, and the lining of this front pocket hangs behind the front pouch 24 (best seen in FIG. 2) for protection. Right and left side ventilation openings 28, 30 are typically located along each side of the torso section 14 of the garment 10, beneath the arm pits of the user.

[0018] The bottom portion 52 of the garment typically is made of longitudinally ribbed material and extends the length of the garment below and about/around the user's waist, so that it can at least partially cover the wearer's rear end and front pelvis for warmth. Typically the bottom portion 52 makes the length of the garment 10 of the invention about 15% longer than prior art garments such as pullover sweaters or hoodies, with the bottom portion 52 ranging from between about 2 inches to about 5 inches in length, more typically between about 2.5 inches to about 3 inches in length. As a non-limiting example, and extra-large sized garment of the invention is about 38 inches long from shoulder to bottom and about 25 inches wide at the bottom portion 52.

[0019] The rebound tension created by the material of the bottom portion 52 is intended to provide a snug and secure fit around the lower body beneath the waist, preventing cold air and snow into the garment from below while keeping the bottom from hiking up above the waist and becoming uncomfortable. Further, while the Figures illustrate the bottom portion 52 as being made of a separate, ribbed material, in one embodiment the elongated bottom portion 52 is merely an extension of the torso section of the garment material, such that both the torso section 14 and the bottom portion 52 are made of the same materials, ribbed or not, and transition seamlessly to one another.

[0020] The hood portion 12 of the garment can include one or more "hidden" hood pockets 50 therein, for storage of small, lightweight items such as small amounts of cash or other valuables, lip balm, cigarettes, or the like. The hood 12 is also typically made of two layers; however the inner layer of the hood is typically a warm material similar to the outer layer of the garment. The double layers in the hood allow hidden hood pockets 50 to be located between the two layers. Typically a hood pocket 50 does not have its own lining, rather the pocket boundaries are sewn into the hood between the two layers of material. The size of a hood pocket 50 is typically between about 0.5" to about 2" wide and between about 0.5" to about 2" deep, and is secured closed by a hook and loop closure or other zipper means described herein. In one embodiment, the garment of the invention does not have a hood and/or sleeves, such that it is in the form of a vest.

[0021] The front pouch 24 has generally vertical side openings which typically extend from one side of the pouch to the other side, although the pouch 24 may have a vertical center seam therein that provides separate right and left pouches. The two side ventilation openings 28, 30 are adapted for quick venting and cooling of the torso, typically after periods of strenuous activity when a lot of body heat is built up inside the garment. The ventilation openings 28, 30 are typically between about six inches to about eighteen inches in length, and preferably between about ten inches to about twelve inches in length, with the armpit area of the garment bisecting the length of the opening. For example, in one embodiment, illustrated in FIGS. 1 and 2, the positioning of the ventilation openings 28, 30 is directly beneath the arm pits, with about six inches of opening on each side of the arm pit, i.e. half of the opening is on the under portion of the sleeve and the other half is along the side of the torso. This arrangement and length of the side vents typically allows optimal ventilation without causing the garment to splay open during movements such as skiing or snowboarding.

[0022] The sleeves 16, 18 with the extended cuffs 17, 19 and thumb holes 20, 22 are adapted for keeping the arms and hands warm during outdoor activities in the cold and snow, and to protect from "snow wrist" which occurs during cold weather outdoor recreational activities. That is, typically the user will wear gloves over their hands, and the extended cuffs with thumb holes will keep the elements from reaching the skin of the wrist beneath the gloves. The cuffs can be made of the same stretchable ribbing material as the bottom portion 52 of the garment, described above. Further, the thumb holes 20, 22 have proven to be advantageous in aiding the wearer to quickly zip the side ventilation openings 28, 30 open and closed; when the user straightens their arms they are able to pull the sleeves and side vent openings 28, 30 taught via the thumb holes, thus allowing them to more easily zip the side vents.

[0023] FIG. 2 shows the garment with the front pocket opening 26 and side ventilation openings 28, 30 in the open, or unzipped, position. The opening 26 for the front pocket is typically located just above the front pouch 24. As shown in phantom in FIG. 2, the lining 34 of the front pocket is suspended behind the pouch 24 for added padding and protection. The contents of the front pocket thus are protected or "cushioned" by the front pouch 24, which makes the front pocket an ideal place for storing valuables and fragile items such as an iPod®, MP3 player or portable CD player, as well as other important items such as wallets, keys, etc.

[0024] As illustrated in FIG. 2, the lining 34 of the front pocket includes a small hole or opening in the form of a grommet or eyelet 32, which provides a passage out of the back wall of the front pocket lining 34, through which headphone wires can be passed. Thus, an audio device can be placed in the front pocket 26 and headphone wires can be threaded through the opening 32 and proceed up the inside of the pullover 10 to headphone speakers, which are placed over the user's ears. The front pocket is typically sized so that excess wire length can be carried within the front pocket, so that the wires remain safe and dry on the inside of the garment and will not get caught or tangled, even during periods of heavy exercise and rapid arm movements, such as during skiing or snowboarding. If the wires are very long, then the excess length of wire can be stored inside the front pocket along with the audio device. Further, the front pocket keeps valuables stored therein proximal to the core of the wearer's body so that the items receive the least amount of movement and bouncing during snow boarding or skiing, as compared to the arms or shoulders, such that there will be less jiggling of any audio device and/or unintentional disconnect of the audio device from the head phone wires.

[0025] The right side ventilation opening 28 and the left side ventilation opening 30 are illustrated in the open position in FIG. 2, revealing their inner linings 36 and 38. The linings 36, 38 of the ventilation openings 28, 30 as shown are solid linings typically made of a moisture wicking material; however the linings 36, 38 can be mesh linings which allow air to flow more easily therethrough to cool the user. In one embodiment, the ventilation openings are not "true" pockets, and do not have linings at all, but are rather merely holes or openings which allow direct access of outside air to pass through the double-layered garment. The lining of the front pocket 26 can also be a mesh material, but typically is a more substantial material such as cotton, in order to better secure and protect an audio device or other sensitive or fragile item that may be placed therein.

[0026] As illustrated, the front pocket opening 26 and side vent openings 28 and 30 are opened and closed by zipper handles 39, 40 and 42, respectively. The zipper handles 39, 40, 42 can be tassels or other large gripping ends that allow easy grasping with a gloved hand, so that the vents can be opened quickly during periods of intense exercise without having to stop and remove one's gloves. However, the pockets are not limited to zippered closures, and can be secured by other means known in the art, including but not limited to buttons, snap closures, and hook and loop closures.

[0027] The garment of the invention is typically a double-layered garment, with the inner layer being a finished material such as polyester, brushed polyester or some other material known in the art for having good "wicking" qualities, to allow for wicking of sweat and moisture away from the body towards the outer side of the garment. The outer layer of the garment is typically made of cotton, fleece, flannel or some other material that is flexible and warm. Typically the linings 36, 38 of the side ventilation openings 28, 30, when present, are made from the same material as this inner layer of wicking material, to facilitate quick cooling and evaporation of sweat and moisture. Typically the two layers of the hood are both made of cotton, fleece or flannel.

[0028] The thermoregulation provided by the recreational garment of the invention is the result of a number of advantageous ventilation strategies. The hood provides control over heat loss from the head, the thumb holes provide the ability to

pull the sleeves down to cover the wrists and proximal hands and allow the wearer to pull the zipper seams taught for easy opening and closure, and the inner layer of wicking material facilitates wicking of sweat and moisture away from the body. The side ventilation openings provide quick cooling during times of overheating by allowing venting of warm air and evaporation of sweat and moisture from inside the garment. In addition, the front pouch allows the user to warm and rest their hands during periods of inactivity, and the front pocket provides a place to conveniently secure an audio device, wallet, or other valuable and perhaps fragile item. With the addition of the eyelet or grommet to the front pocket, an audio device and wires for headphones can be protected within the front pocket without worry of the wires getting tangled during intense exercise, keeping the wires protected from the snow and from the risk of tearing or getting caught on external objects. The use of a stretchable, elongated longitudinal ribbing material for the bottom portion of the sweatshirt is advantageous in that it creates a bottom portion that is tight enough so as not to let air rush in while snowboarding or skiing, yet loose enough so that the bottom of the garment does not hike up and get bunched up above the waist. These features combine to provide a fully functional, thermoregulated, recreational garment with features that do not appreciably alter the look of the pullover sweat shirt, thereby appealing to those who like the look of a traditional hoody. [0029] While the present invention has been illustrated by

[0029] While the present invention has been illustrated by the description of embodiments and examples thereof, it is not intended to restrict or in any way limit the scope of the appended claims to such detail. Additional advantages and modifications will be readily apparent to those skilled in the art. Accordingly, departures may be made from such details without departing from the scope or spirit of the invention.

What is claimed is:

- 1. A recreational garment, comprising:
- a. a hood adapted to receive and cover the head of the user;
- b. a front pouch;
- c. a front pocket located behind the front pouch;
- d. right and left sleeves for receiving the arms of the user, each of the sleeves comprising extended cuffs, the cuffs including thumb holes adapted to allow the user to slide their thumbs therethrough;
- e. a bottom portion adapted to extend below and fit securely about the user's waist;
- f. a right side ventilation opening adapted to be reversibly opened and closed for venting of the garment; and
- g. a left side ventilation opening adapted to be reversibly opened and closed for venting of the garment.
- 2. The garment of claim 1, wherein the garment is made of an outer layer of material adapted for flexibility and warmth and an inner layer of material adapted for wicking sweat and moisture towards the outer layer of material.
- 3. The garment of claim 2, wherein the two side ventilation openings each include a ventilation lining made of material adapted for wicking sweat and moisture away from the user.
- **4**. The garment of claim **3**, wherein the ventilation linings are meshed in form.
- 5. The garment of claim 2, wherein the outer layer of material is selected from the group consisting of cotton, fleece, and flannel.
- 6. The garment of claim 1, wherein the hood is made of two layers of material, the layers being made of material selected from the group consisting of cotton, fleece and flannel.

- 7. The garment of claim 6, wherein the hood includes a hood pocket located between the two hood layers for storage of small items, and wherein the hood pocket is between about 0.5" to about 2" wide and between about 0.5" to about 2" deep.
- 8. The garment of claim 1, wherein the front pocket includes a lining sized to receive an audio device, the front pocket lining including an opening for providing access for headphone wires.
 - 9. A thermoregulated recreational garment comprising:
 - a. a torso section adapted to cover the torso of a user and including a front pouch, a front pocket located behind the front pouch, a right side ventilation opening, and a left side ventilation opening;
 - b. right and left sleeves attached to the torso section and adapted to receive the arms of the user, each of the sleeves comprising extended cuffs, the cuffs including thumb holes adapted to allow the user to slide their thumbs therethrough;
 - c. a hood attached to the torso section and adapted to receive and cover the head of the user; and
 - d. a bottom portion adapted to extend below and fit securely about the user's waist,
 - wherein the front pocket includes a lining sized to receive an audio device, the front pocket lining including an opening for providing access for headphone wires, and wherein the two side ventilation openings are adapted to be reversibly opened and closed by the user for venting of the garment.
- 10. The garment of claim 9, wherein the garment is made of an outer layer of material adapted for flexibility and warmth and an inner layer of material adapted for wicking sweat and moisture towards the outer layer of material.
- 11. The garment of claim 10, wherein the outer layer of material is selected from the group consisting of cotton, fleece and flannel.
- 12. The garment of claim 9, wherein the two side ventilation openings each include a ventilation lining made of material adapted for wicking sweat and moisture away from the user.
- 13. The garment of claim 9, wherein the hood is made of two layers of material, the layers being made of material selected from the group consisting of cotton, fleece and flannel.

- 14. The garment of claim 13, wherein the hood includes a hood pocket located between the two hood layers for storage of small items, and wherein the hood pocket is between about 0.5" to about 2" wide and between about 0.5" to about 2" deep.
 - 15. A thermoregulated recreational garment comprising:
 - a torso section adapted to cover the torso of a user, the torso section comprising a front pouch, a front pocket located behind the front pouch, a right side ventilation opening, and a left side ventilation opening, wherein the front pocket includes a lining sized to receive an audio device, the front pocket lining including an opening for providing access for headphone wires, and wherein the two side ventilation openings are adapted to be reversibly opened and closed by the user for venting of the garment.
- 16. The garment of claim 15, further comprising right and left sleeves attached to the torso section and adapted to receive the arms of the user, each of the sleeves comprising extended cuffs, the cuffs including thumb holes adapted to allow the user to slide their thumbs therethrough.
- 17. The garment of claim 15, wherein the two side ventilation openings each include a meshed ventilation lining made of material adapted for wicking sweat and moisture away from the user.
- 18. The garment of claim 15, further comprising a hood attached to the torso section and adapted to receive and cover the head of the user, wherein the hood is made of two layers of material, the layers being made of material selected from the group consisting of cotton, fleece and flannel, and wherein the hood includes a hood pocket located between the two hood layers for storage of small items, the hood pocket having a size of between about 0.5" to about 2" wide and between about 0.5" to about 2" deep.
- 19. The garment of claim 15, wherein the garment is made of an outer layer of material adapted for flexibility and warmth and an inner layer of material adapted for wicking sweat and moisture towards the outer layer of material.
- 20. The garment of claim 19, wherein the outer layer of material is selected from the group consisting of cotton, fleece and flannel.

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