LED Strip Light Directed Picking System (US Patents 6,775,588 / 8,019,463)

FastFetch is a patented order fulfillment system that uses a combination of light-directed picking, voice picking, and wireless (Bluetooth) scan picking technologies.

Lights on Both Carts and Picking Bays
In this mode, the system illuminates segments of LED lights (chained together in a “strip”) adjacent to a picking bay shelf to designate the picking location as well as light modules adjacent to cart locations (each location with a single quantity/message light module) to enable cluster picking/putting of multiple customer orders with a single trip through the warehouse. This process of “coupling” the light modules on bays with light modules on carts is patented by FastFetch Corporation and usually entails the following:

1. During picking, a TABLET PC directs a picker to move to a target storage bay containing product required by one or more customer orders on a cart. When the bay is reached the TABLET PC tells the picker to STOP using both voice and visual commands.
2. The TABLET PC then wirelessly illuminates an LED segment on the picking bay and light module(s) on the cart. The LED segment on the picking bay indicates which item to be picked, while the quantity to be picked is verbally communicated, displayed on the tablet screen and optionally displayed in a message light on the bay. A lighted numeric display adjacent to each order box location on the cart will be illuminated to indicate the order boxes requiring the picked item and the required quantity of the item.
3. The picker provides confirmation of the pick on the bay by waving a hand or product near flashing LED(s) on light modules on the cart. When all cart light modules have been confirmed, the system extinguishes both the light modules on the cart and LED segments on the picking bay. The FastFetch system uses a light sensitive proximity (“touchless”) switch rather than a mechanical button for confirmation.
4. When picking at a bay is complete the TABLET PC visually and verbally instructs the user to move on to the next required picking bay.

Benefits

1. Lower cost since LED strips are much less expensive (70% – 90% less) than conventional light modules since they are sold by the shelf rather than the picking location.
2. Product locations can be much narrower since a segment of LEDs may be as short as a single LED (about 1 inch).
3. Lower power required since a single segment of LEDs consume less power than an illuminated light module.
4. Conventional light modules and LED strips can be mixed in a string on the same picking bay to enable display of the total quantity to pick from a location adjacent to an LED segment.
5. Ideal for use in harsh environments since LED strips are protected in an IP61 rated waterproof sheath.
6. Multiple colors can be illuminated to distinguish different pickers, packers, products or processes.
7. Can be used on shelves on the rear of put walls to designate which slots are ready for packing. Colors can be used to designate which packer is assigned to a particular slot.
Selected Clients

One of the big 3 auto manufacturers in Detroit
(not revealed due to confidentiality restriction)