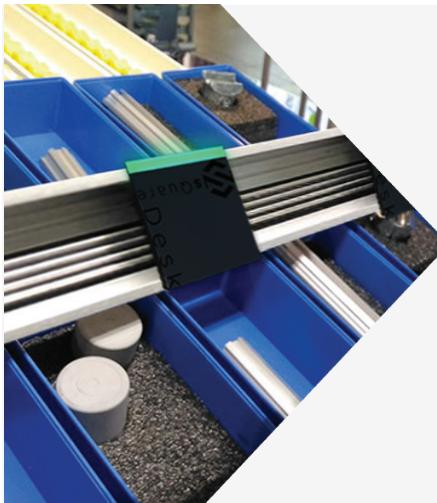


# Expedite PART Picking Using IoT Smart Lighting FOR WAREHOUSES



Pick by Light /Put by Light uses light devices mounted at item locations, such as flow rack, shelving, workstations, or other storage media to guide operators in identifying the correct product locations to fill an order.

Simplicity is the primary advantage of this application: operators scan a bar code on a shipping container to launch order in their zone, the illuminated LEDs direct pickers to the product location.

Traditional Pick / Put by Light systems are the typical red and green light bars hard-wired to the racks, while IoT enables multi-colored wireless connected devices that are simple to install and relocate if necessary.

## Activity flow

Reios IoT picking / putting system is based on the use of two elements: sSquare Shelf, wireless IoT device hooked onto the shelves and operator's smartphone or smart watch.

- Work order is received on operator's smartphone or smart watch
- The operator accepts the order and visualize a color associated with it
- The sSquare Shelf placed on the shelves and associated with the materials in the order light up, guiding the operator to the indicated storage location
- The operator moves towards the first storage location and checks on the smartphone how many and which items should be picked/dropped.
- The operator picks/drops the item(s) and confirms the action on the smartphone or by touching sSquare Shelf with the smartphone.
- The application continues, illuminating each sector for picking/dropping until all items have been picked or placed in their respective holding containers
- Reios IoT picking system can be configured to enable more detailed instructions, options and services

**sSquare Shelf** is a small wireless IoT device equipped with LED lights that is hooked above or below the shelves. Whenever an order list needs to be fulfilled, the sSquare Shelf associated with the materials in the order turn on, displaying the required color and showing the materials position to the operator.

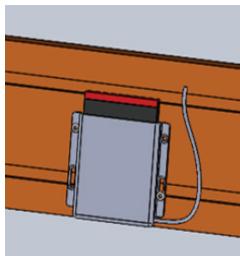
The device is a Wi-Fi / BLE gateway, communicates with Reios IoT Platform via Wi-Fi and can communicate with the operator's smart watch or smartphone by BLE.



**Pick by light Application** can be used on any smartphone (IOS, Android) or on a smart watch equipped with Wi-Fi& Bluetooth.

Connected with the server/cloud, the application displays the work orders, sends the order acceptance to the system and shows the number of each item to be managed.

The operator can confirm each action requested on the App or by touching the sSquare Shelf with the smartphone/smart watch.



sSquare Shelf is fitted into a custom-made shelf-pocket, designed to be coupled to the shelf with screws.



## Benefits

### Improved Warehouse Performance

Faster order picking, more accurate, and less prone to errors. Results can also be monitored in real-time while the order list can be updated in real-time as well.

### Improved Staff-Hours Utilization

Specific order pickers are assigned to each zone and will move accordingly, depending on the items required and lighted. The result will be more items picked up and processed within a lesser amount of time.

### Wireless communication

sSquare Desk devices communicate with the platform wirelessly, thus they need only power supply. They can be relocated, removed or added effortlessly, as necessary, with no infrastructure costs.

### Additional services

Reios IoT platform enable a wide array of additional applications and services, for example our IoT based real time locating system (sTrack), environmental control, etc. sSquare Shelf are Wi-Fi/BLE gateways used by the system also to locate assets or people equipped with tags in the area, to gather data from wireless environmental sensors, send commands to actuators and other functionalities.

### Flexibility

Reios IoT Platform is open and flexible, using the MQTT protocol and a SQL database to effectively connect the devices to the server or cloud, using open APIs and enabling the integration of any additional devices (wireless or wired), applications or existing systems.

