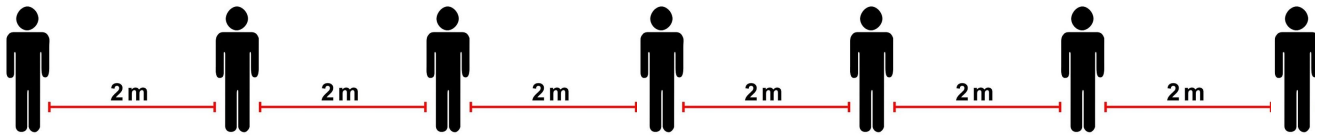


Automated Mobile Robots Help Companies Meet Social Distancing Guidelines



With the ability of coronavirus to spread swiftly, autonomous mobile robots (AMRs) can help warehousing, logistics, and manufacturing companies ensure their businesses continue to operate efficiently while maintaining the social distancing guidelines that health experts see as essential in mitigating the spread of the coronavirus.

Social distancing guidelines call for minimal gatherings of people in the workplace or elsewhere. When there is more than a single person, the guidelines recommend that they be at least six feet apart. By minimizing human contact and proximity, the highly contagious virus is less likely to be passed from one person to another, health experts say.



While the pandemic hit restaurant, hospitality, travel, and other businesses particularly hard, other businesses have been as resilient as ever. Consumer staples have seen a boost in demand as consumers look to ensure they are stocked up with paper goods, shelf-stable food, and similar products so they can limit trips outside the home.

Figures from BMO Equity Research data show that grocery sales grew sharply as consumers looked to replace dinners out, business lunches, and school lunches with meals cooked at home.

Beyond the consumer staples, other retailers, like hardware stores, furniture retailers and consumer electronics providers saw demand as workers who had been in office buildings, shifted to new home offices needing basic equipment. The demand for goods is still there. So manufacturers, warehouses, and logistics firms need to step up operations to meet increasing product demand while maintaining social distancing.

AMRs Keep Processes Moving in Plants, Warehouses

From a manufacturing perspective, automated mobile robots (AMRs) meet the challenge by safely moving raw materials, work-in-process, parts, tools and finished goods around plants as well as efficiently remove scrap and other waste from facilities, all without human intervention. For example, AMRs can autonomously move carts or pallets from receiving to inventory as well as move from inventory to lineside or workcell delivery.

From a distribution and fulfillment perspective, AMRs enable associates to be more productive by spending 100% of their time picking instead of 50% of their time doing non-value added material movement. AMRs can autonomously perform much of this non-productive manual work of a human workforce, including transporting objects as heavy as 3,300 pounds from station to station,

hand off or receive material from fixed conveyance, or move orders to pack-out stations.

Even before the pandemic became an issue, these companies were finding it difficult to find human labor because unemployment was running at historic lows and some facilities were not near sufficient labor supplies.

Now some are faced with the additional challenges of doing more with even fewer workers – some workers staying home to take care of children who are no longer in school, parents who may no longer have access to an in-home care provider or are concerned for their own safety in the workplace during the pandemic. Some workers have also fallen ill due to the pandemic or more common causes like the flu, colds, etc. AMRs have no such issues.



To enable the human workforce to work at safer distances, some manufacturing facilities have created more physical separation between workcells or manufacturing line positions with AMRs acting as the “go-betweens” or runners between these workcells or positions. Distribution and fulfillment centers have added more shifts of fewer workers to keep these workers at socially safe distances while continuing to meet the increased needs of their customers.

The ability for these manufacturing, distribution, and fulfillment companies to change their AMR workflows with little to no assistance from the AMR vendors is due to the fact that these AMRs and the software used to create AMR workflows are both cloud-based.



Without even going on-site, a process engineer or automation engineer can modify existing workflows by creating new AMR pick-up and drop off locations that align with the new workcell or line positions. Entirely new AMR workflows can also be created to accommodate additional shifts in fulfillment and distribution centers. AMRs can run several hours on a single charge and can recharge between shifts.

Cloud-Based AMRs

In addition to helping companies meet social distancing guidelines, cloud-based AMRs offer several benefits in handling the COVID-19 related challenges:

No Vendor Implementation Involvement Required: Though all AMRs have some advantages for efficient movement of materials, the initial setup of traditional AMRs will require the vendor to work in the facility for months or more to complete the initial implementation, which isn't as safe as a completely remote implementation that is possible with cloud-based AMRs.

Easy Setup: The first step will be to have the unit map the facility using LIDAR to record every station, support beam, wall, corridor, etc. Transmitting the floor plan from one AMR to subsequent ones is a simple matter of a couple of steps. Facilities Managers can deploy entire AMR fleets with simple drop and drag instructions, so no complex programming or other IT involvement is needed. Other automation requires partial facility shutdown,

