

Fulfillment Solution with Ranger Case Pick

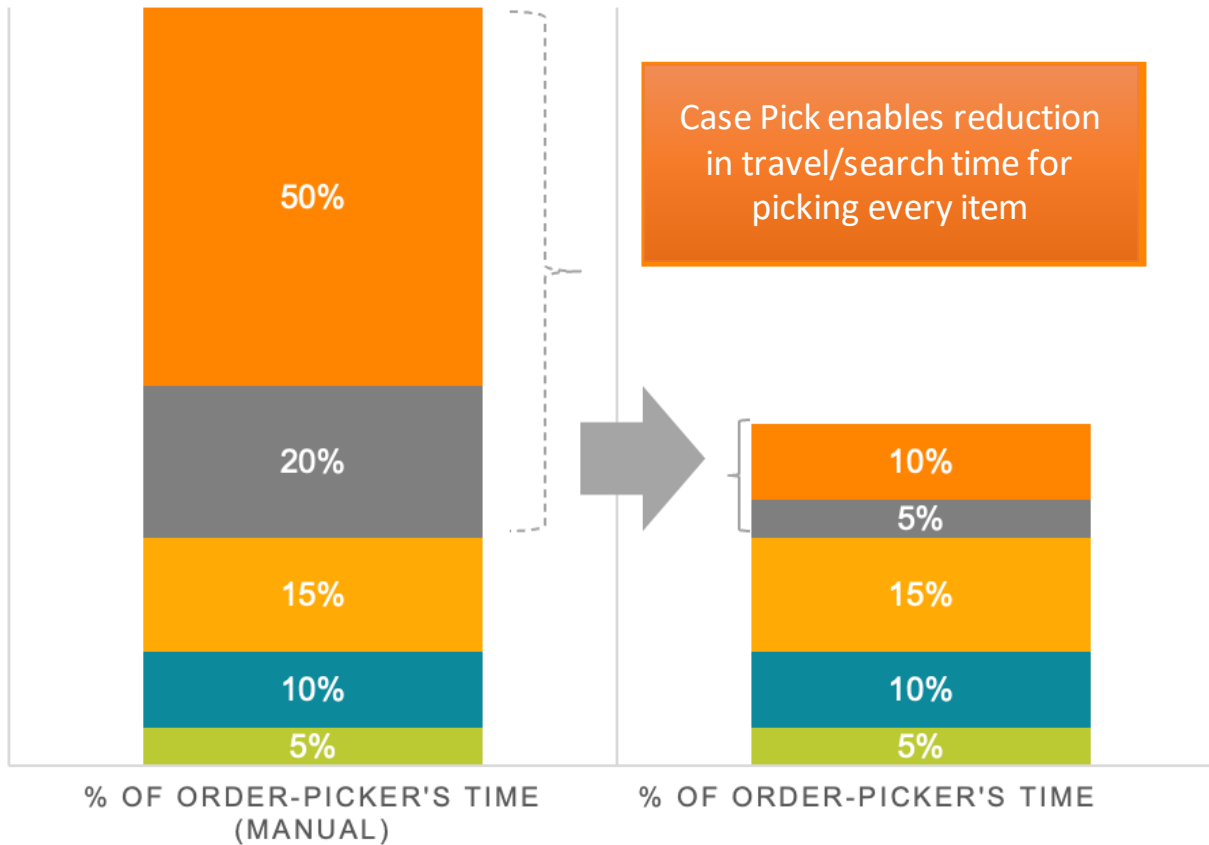


WHY THE NEED FOR AUTOMATION DRIVEN FULFILLMENT SOLUTION ?



PICKING TIME ACROSS ACTIVITIES

■ Other ■ Setup ■ Pick ■ Search ■ Travel



Hurdles to Reach Competitive Advantage

Recruiting and onboarding seasonal labor

Omnichannel fulfillment from one warehouse

Volume fluctuations across weeks/months

Limited capex/infrastructure changes

Peak vs. Usual avg. volume (4X to 5X)

Increasing labor costs

Order prioritization (distance vs. urgency)

Time lost in pallet re-arrangement

INTRODUCTION TO RANGER CASE PICK



Ranger Case Pick is a highly configurable person to goods robotic system. It replaces manual picking process & equipment's with data science driven co-bots that boost operator productivity without any infrastructure changes.



Boosts Productivity By 2x-3x

- Operator walking time reduction
- Better picking ergonomics
- Enhanced employee satisfaction at minimal cost per picker



Works right out of the box

- Go-live in days/weeks with a fast ramp up
- No fencing, barcode or operational downtime
- Can be shifted to any new location
- Reduces operator training



Quick payback period & ROI

- Payback period usually starts within 1 year of operation
- Expected TCO reduction to be from 25~40%
- Expected ROI to be above 100%



Safe and Valued Co-Worker

- Zero Accident solution
- State of the art LIDAR based SLAM navigation ensuring best in class safety and incident free operations
- Can co-exist with MHEs



Pallet type agnostic solution

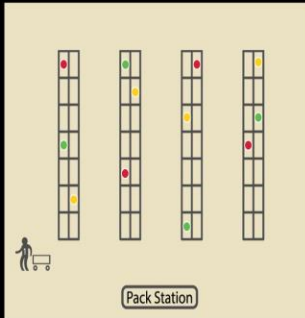
- Case picking application can work on all pallet types
- System can process requests with multiple types of pallet within the same warehouse



Ranger Case Pick is Powered by GreyMatter – Our State-of-the-Art Fulfillment Operating System which gives you a competitive advantage



RANGER CASE PICK ADVANTAGES OVER TRADITIONAL OPS

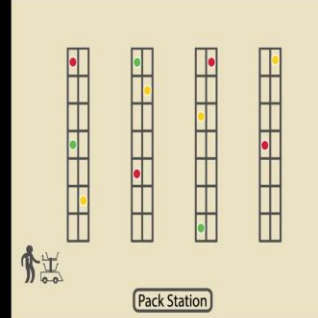


Benefits

- ✓ Simple process
- ✓ Fits into existing infrastructure

Challenges

- Operator has access to limited order pool
- Needs to push a cart and operator fatigue builds
- Long cycle time



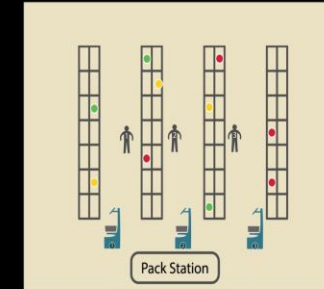
Benefits

- ✓ Increased productivity
- ✓ Hands free
- ✓ Fits into existing infrastructure

Challenges

- Minimal reduction on travel and cycle time
- May reduce pick density

RIGHT ORDER TO RIGHT PICKER AT RIGHT TIME




Benefits

- ✓ Significant increase in productivity
- ✓ Hands free
- ✓ Fits into existing infrastructure
- ✓ Reduced cycle time

CASE PICKING IN ACTION

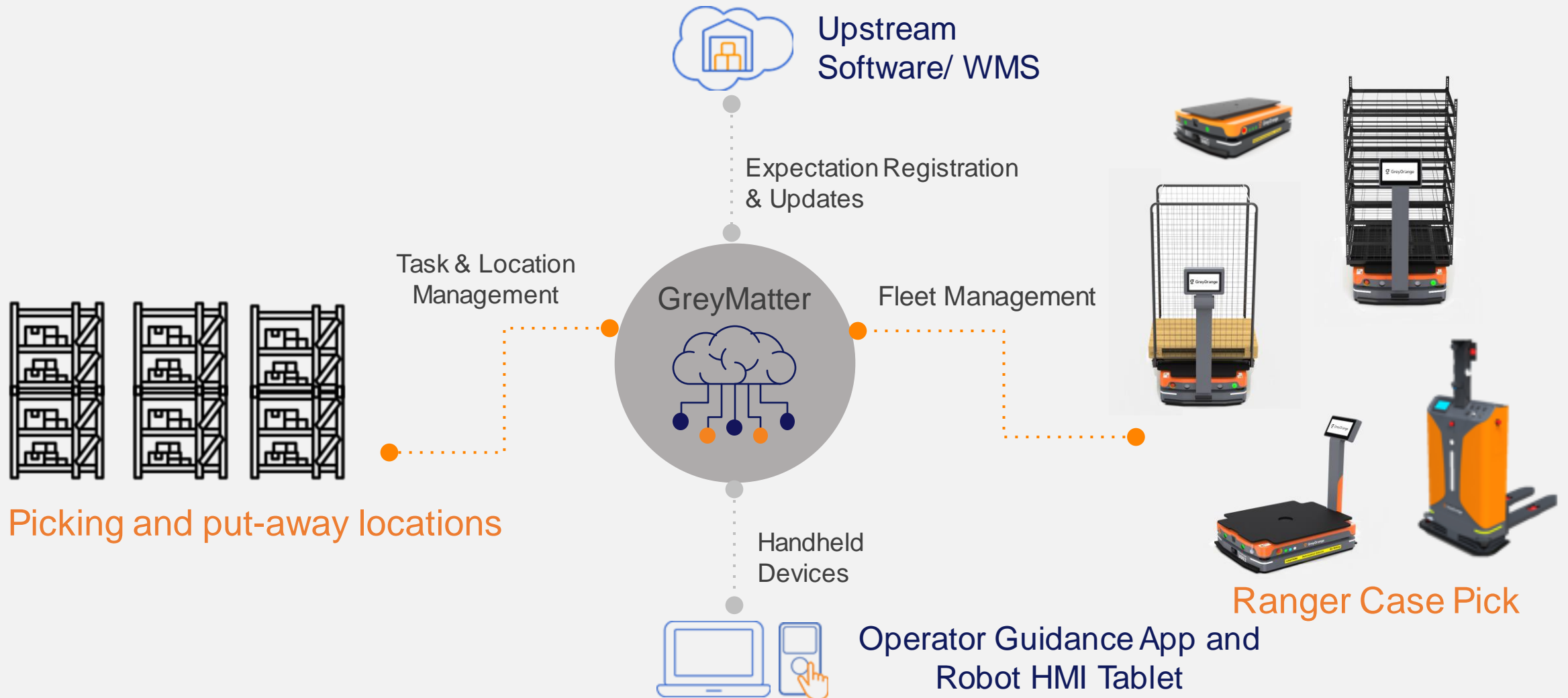


 GreyMatter ensures safe stacking of cases

CASE PICKING ORCHESTRATION



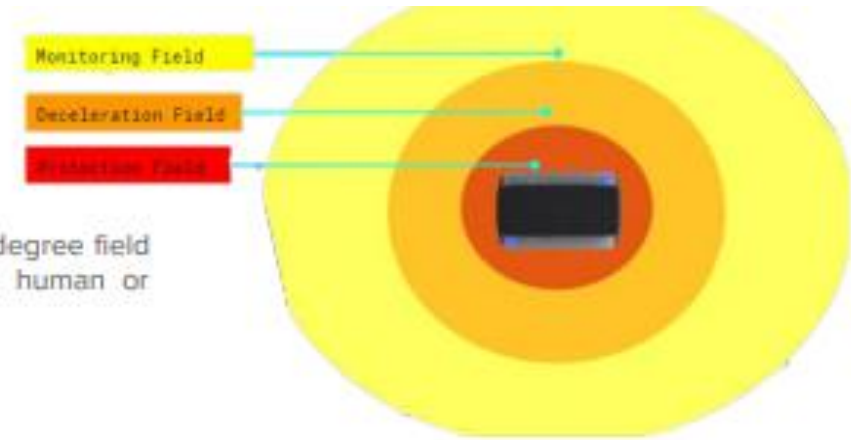
GreyMatter orchestrated case picking



ROBOT SAFETY SYSTEM

360° Field of View

Dual high precision safety laser scanners are placed strategically to provide a 360 degree field of view. Configurable distance scan fields are capable of detecting any object, human or otherwise, and enabling course adjustments.



Standard Setting Safety Features

We designed RIL to meet safety standards EN 1525, ANSI B56.5-2012, as well as the recently released UL3100, and ANSI/RIA 15.08. All safety functions implemented to ensure that the robots react safely even if the primary safety features should error.



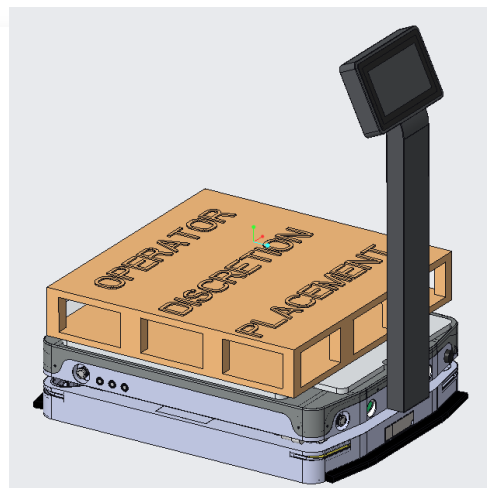
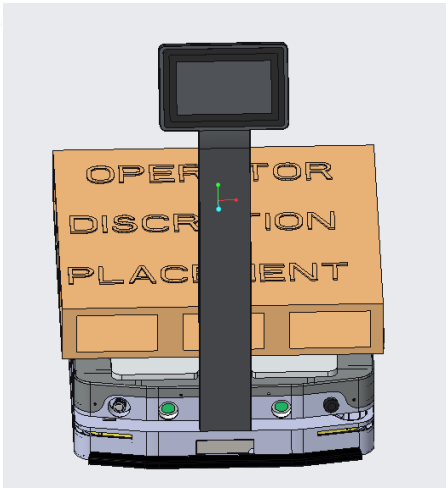
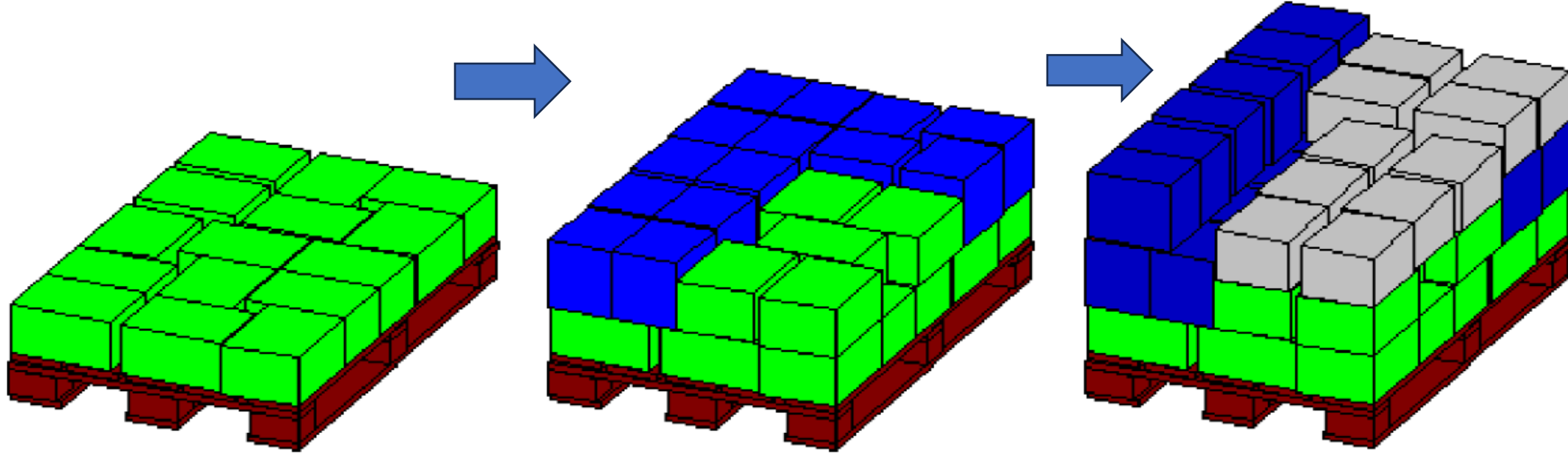
Audio and Visual Awareness Indicators

The robots are equipped with motion enabled headlights and state indication LEDs visible from all the sides which alert operators to the robot's presence and action state. In addition, a speaker which can be easily configured according to the operation needs, such as audio alerts at crossing and in highly trafficked areas.

Manual Emergency Stop

Easily accessible emergency stop buttons are located on all sides of the robots enabling operators to externally stop the robot operation instantly in case of any concern

LAYERING & PALLETIZATION



In a system directed picking system, the operator is instructed to pick items on to a pallet based on

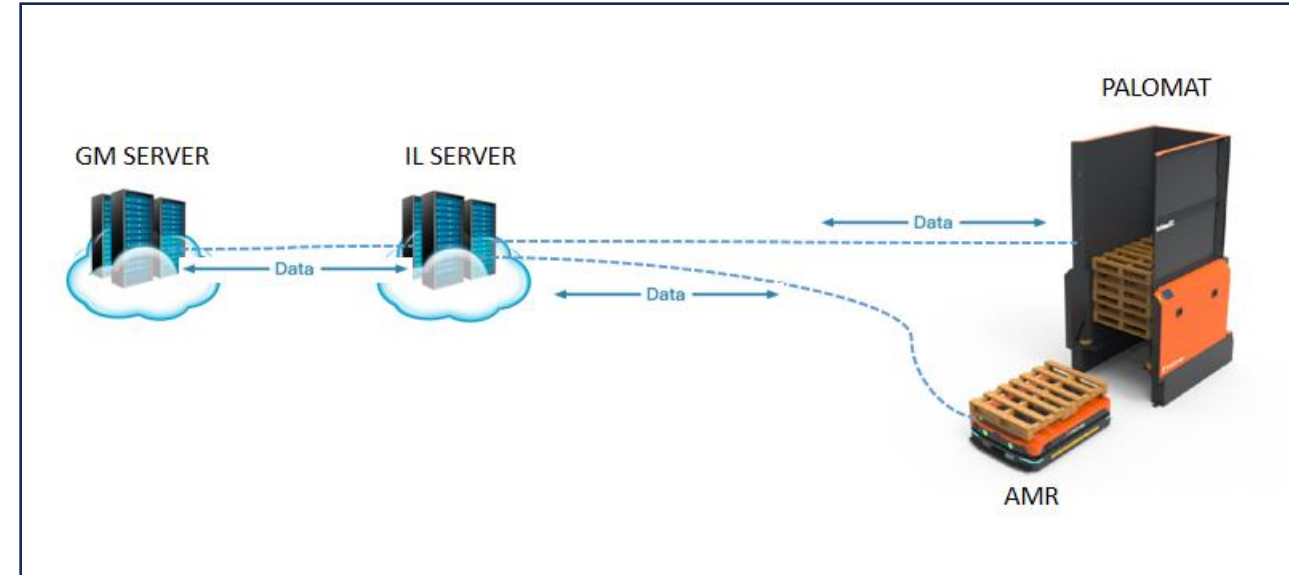
- 1) Pallet and case volume
- 2) case density and item crushability
- 3) case stacking height for each layer
- 4) case layer width for each layer

If in case, an user detects any anomaly, the pallet is flagged for audit and pick changes to user directed pick

GREYMATTER INTEGRATION WITH PERIPHERALS



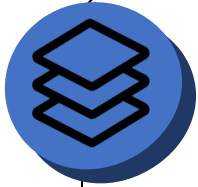
GreyMatter allows easy integration with peripherals to adopt to any business needs



GREYMATTER – WAREHOUSE ECO-SYSTEM INTEGRATION

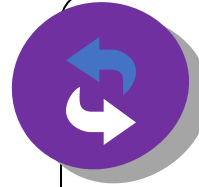


STARTING YOUR AUTOMATION JOURNEY HAS NEVER BEEN SO EASY



GreyOrange Automation Assessment

- ☐ Conduct Initial Automation Assessment
- ☐ Consulting based solutioning approach
- ☐ Easy to understand estimated pricing available within hours of enquiry
- ☐ Hand-holding for integration with upstream and downstream processes as well



Visit our Customer Experience Zone

- ☐ We welcome you to visit our Customer Experience Zone to see our multiple solutions in action
- ☐ Option for a CEZ Virtual Visit is also available

De-Risk Your Automation Investment With GreyOrange Right Fit, Right Now Fulfilment



Fulfilling the Future in Real Time™