ARV
Zalpha

* **Assembly**
* **Fastening**
* **Pick And Place**
* **Machine Tending**
* **Packaging**
* **Palletizing**
* **Vision Inspection**
* **Mobile Manipulation**

ARV

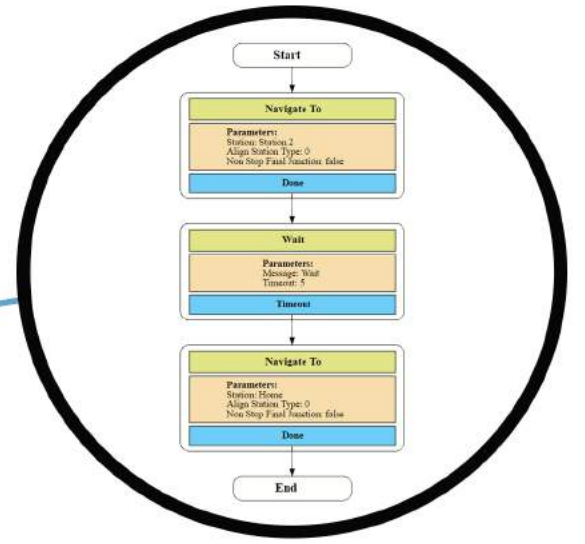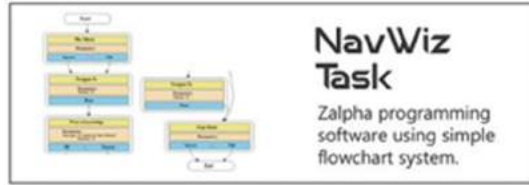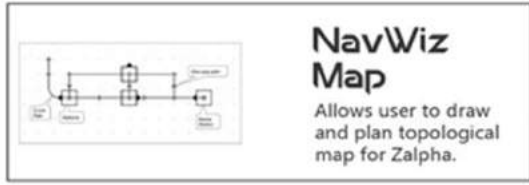Autonomous Robotic Vehicles (ARV) is an Autononous Mobile Robot (AMR) equipped with robotics arm capable of doing material handling, machine tending, vision inspection and many more
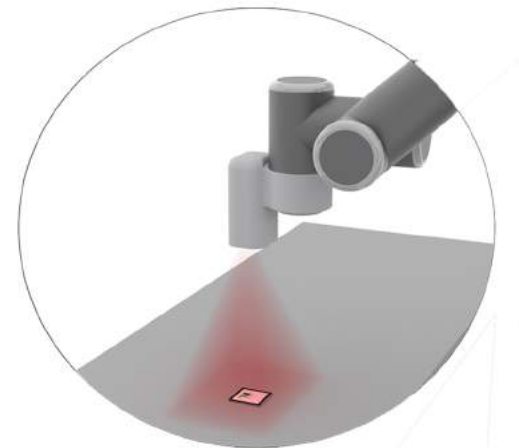
Flexible Manufacturing

Flowchart based programming allows quick and easy deployment

NavWiz Map
Allows user to draw and plan topological map for Zalpha.

NavWiz Task
Zalpha programming software using simple flowchart system.

Built-In Vision

Pattern recognition, object positioning and feature identification with cobot Landmark

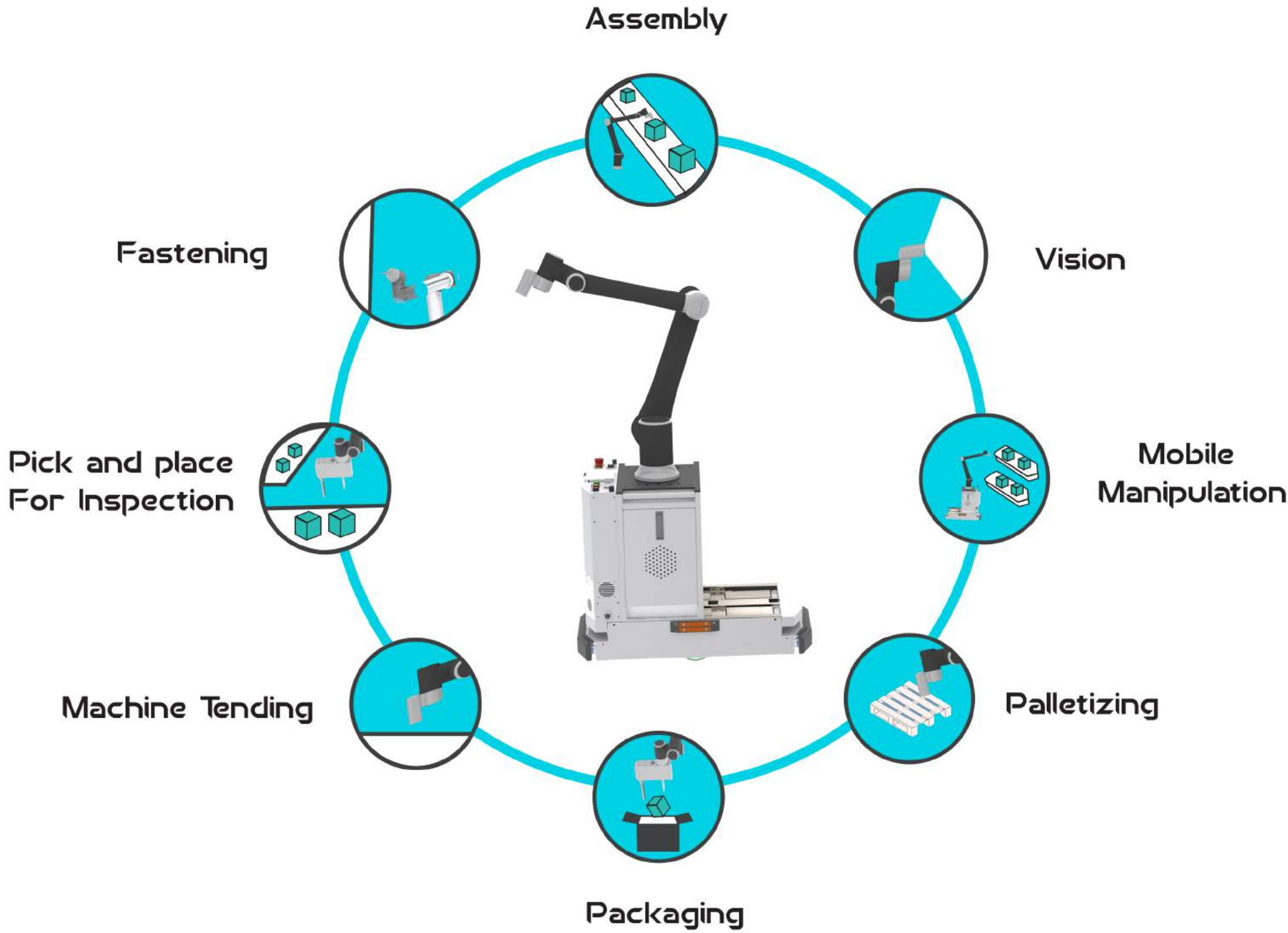| Landmarks	Contrast	Color Plane Extraction	Smoothing	Thresholding	Morphology	Image Flipping
Character Recognition	Anchor	Pattern Matching	Fiducial Mark Matching	Blob Detection	Barcode	Color Identification

End Effector

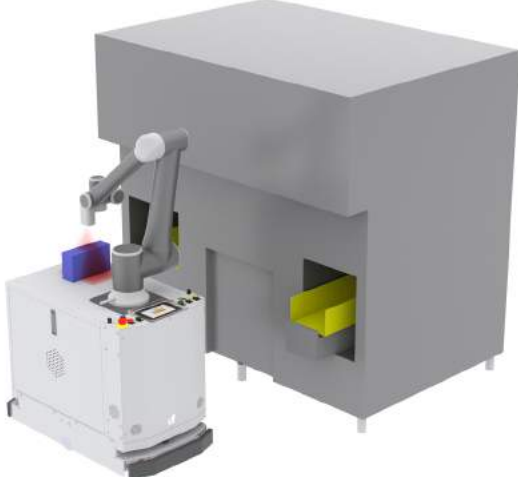**Standard mounting allows quick change to different end effectors type**

Zalpha ARV

Assembly

Fastening

Vision

Pick and place
For Inspection

Mobile
Manipulation

Machine Tending

Palletizing

Packaging

Pick and place

Machine Tending

Specifications

General	
Product Name	ARV12
ARV Weight (KG)	Approximate 207 Kg
Reach (mm)	1300
Typical Speed (m/s)	1.3
Repeatability (mm)	+/- 0.1
Integrated Camera	5M pixels, color
Max Payload (KG)	AMR: 300 Kg Robot Arm: 12 Kg
AMR Max Speed (m/s)	1 (m/s), 3.6 (km/h)
Driving System	Differential
Run Time (100% to 10%)	Approximate 10 hours
Charge Time (10% to 100%)	4 hours
Charging Method	Automatic & Manual Charging available
Operating System	NavWiz
Communications protocol	REST, Modbus, Webhooks
Safety indicator	Color LED lighting, Music playback & Alarm
Safety Features	5m adjustable range laser sensor (MG)/ LiDar (TS) x2 Bumper switch x2 Emergency switch x1 External safety input/ output

D F Automation & Robotics India
Sagar@dfautomation.com.my
+91-9272442626