



# MAG1500 Tugger



**Heavy Component Transport**  
**Sequenced Material Delivery**  
**Inter-Stage Material Transfer**

## Performance

|                                 |                   |
|---------------------------------|-------------------|
| Max load                        | 1500 kg           |
| Maximum speed                   | ≤0.6 (Adjustable) |
| Passability<br>(slope/step/gap) | ≤5%/5mm/30 mm     |
| Navigation Position Accuracy    | ±10 mm            |

|                           |          |
|---------------------------|----------|
| Navigation Angle Accuracy | ± 1 deg  |
| Loading Time              | 5 sec    |
| Navigation Accuracy       | ± 25 mm  |
| Supported Payload         | Trolleys |

## Frame & Build

|                   |                 |
|-------------------|-----------------|
| Dimension         | 2280*500*330 mm |
| Robot Base Weight | 417 kg (±10 kg) |
| Ground Clearance  | 30 mm           |

|                 |         |
|-----------------|---------|
| Traversable Gap | 10 mm   |
| Turning Radius  | 1000 mm |

## Battery & Charging

|                   |           |
|-------------------|-----------|
| Battery Capacity  | 50 Ah     |
| Battery Chemistry | LiFe3PO4  |
| Runtime           | 6 ~ 8 hrs |

|                  |                         |
|------------------|-------------------------|
| Full Charge Time | 2 ~ 3 hrs               |
| Battery Life     | 1500 Full Charge Cycles |
| Battery Voltage  | 48V                     |

## Environment

|             |                                                  |
|-------------|--------------------------------------------------|
| Temperature | 20°- 40° C (Indoor Use Only - No Water on Floor) |
| IP Rating   | IP20                                             |

|          |                       |
|----------|-----------------------|
| Humidity | 10-90% non-condensing |
|----------|-----------------------|

## Safety

|                       |                                     |
|-----------------------|-------------------------------------|
| Safety Scanning Laser | 2 LiDAR (One on the front and back) |
| Emergency Stop        | 2 (One on the front and back)       |

|            |                              |
|------------|------------------------------|
| Indicators | Light for pedestrian warning |
|------------|------------------------------|

## Processing & Sensing

|                |                                                      |
|----------------|------------------------------------------------------|
| Computing Unit | High Performance Computer with 16GB RAM and 64GB SSD |
|----------------|------------------------------------------------------|

|               |                                      |
|---------------|--------------------------------------|
| Communication | WiFi 2.4 / 5 GHz (802.11 a/b/g/n/ac) |
|---------------|--------------------------------------|

## Interface

|               |                                               |
|---------------|-----------------------------------------------|
| Toggle Button | Forward, Reverse, Lift Drive, Lift Pin & Stop |
|---------------|-----------------------------------------------|

|              |                   |
|--------------|-------------------|
| Touch Screen | 5inch HMI Display |
|--------------|-------------------|

## Use Cases

- Moves large, heavy components placed on trolleys between production or processing stages, reducing manual effort and improving efficiency.
- Enables just-in-time and just-in-sequence delivery of materials to production lines, ensuring smooth and timely operations.
- Automates the transfer of parts between key production zones, minimizing manual handling and streamlining workflow across departments.

Feel Free to reach out to discuss @ [www.botsync.co/contact-us](http://www.botsync.co/contact-us)

