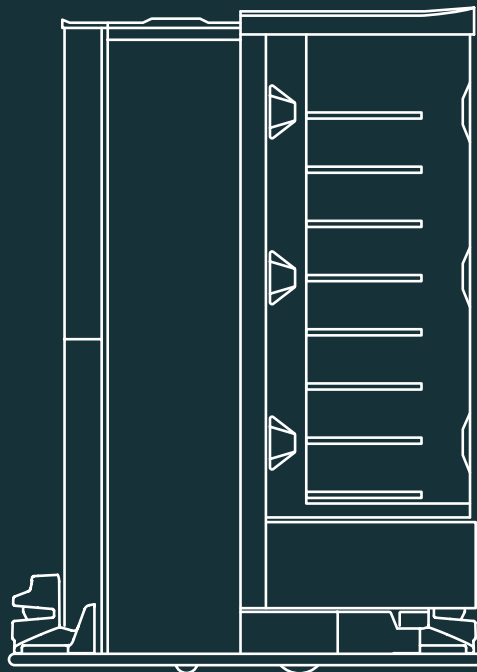


# MAGAZINO



# TORU

A mobile robot that interacts with its environment: TORU can pick small boxes completely autonomously.

DATA SHEET



## Compatible objects



Object dimensions (L x W x H)

Object weight

Stack height

Stack weight

Surface (Suction area)

Incompatible features\*

Barcode line thickness

min. 50 x 100 x 80 mm  
 max. 390 x 280 x 145 mm  
 0.25 kg – 2.00 kg  
 max. 3 objects  
 max. 5.8 kg  
 plain, strong, non porous  
 front opening boxes, external cords  
 min. 0.5 mm

## Onboard storage



Capacity

Storage shelves

Payload

8 – 16 items, depending on object dimensions and weight  
 8 layers, adjustable in 20 mm increments  
 max. 40 kg

## Robot operation space\*\*



Max. gripping height above ground

Min. gripping height above ground

Max. distance object to edge of shelf

2,500 mm

80 mm

+/- 50 mm

## Robot specifications



Footprint (L x W)

Robot height

Robot height, extended

Curb weight

Surface load

Navigation speed

Battery chemistry

Battery runtime

Operating time per day

1,375 mm x 685 mm

1,930 mm

2,912 mm

235 kg

295 kg/m<sup>2</sup> (incl. payload)

max. 1.5 m/s

LiFePO<sub>4</sub>

8 hours

18 hours

## Miscellaneous



Control

Navigation & Localization

Safety features

Interface

Cameras

autonomous robots, centralized fleet management

perception driven navigation based on simultaneous

localization and mapping (SLAM)

laser scanner, bumper, distance sensors, emergency stop,

movable by hand in case of emergency

connection to enterprise resource planning system via Wi-Fi

2D and 3D cameras for object recognition

\* may be possible in some cases

\*\* more information can be found on the warehouse environment data sheet

