

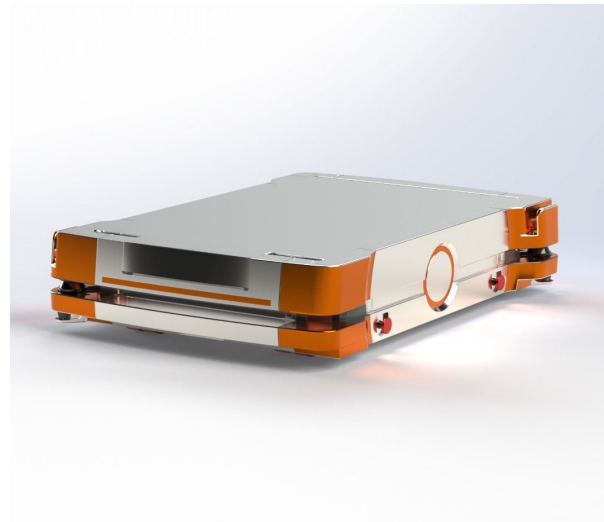


# AURORA

**YOUR RELIABLE AUTONOMOUS TRANSPORTER**

**AURORA is an autonomous mobile robot designed for efficient transportation in commercial and residential environments**

**It offers advanced navigation, a compact, durable design, and a cost-effective, sustainable solution for indoor logistics.**





# AX 35

## Physical Dimensions and Structure

- **Overall Dimensions:** 50 cm x 40 cm x 30 cm
- **Chassis:** Aluminium
- **Shell:** PLA and TPU (shock absorbing)
- **Vehicle Weight:** 15 kg
- **Payload:** 35 kg
- **Movement:** Omnidirectional

## Motors and Wheels

- **Motors:** 4 x 0.7 Nm torque, 185 RPM planetary gear motors
- **Wheels:** 4 x 100 mm Omni Aluminium
- **Power Output per Motor:** 24 W
- **Total Power Output:** 96 W
- **Max Speed :** 1.5 m/s
- **Acceleration :** 0.8 sec



## Power System

- **Battery:** Pro-range IFR 32650 14.8V 6Ah LiFePO4
- **Charger:** HTRC-P20 Smart Battery Charger
- **Charging Time:** Approximately 15 mins
- **Estimated Runtime:** Approximately 1.5 hrs

## Electronic Components and Features

- **Control Unit:** Raspberry Pi 5
- **Sensors:** GPS, camera, and additional sensors
- **Anti theft Sirens**
- **Emergency Stop**
- **Pedestrian Collision Warning**



# AX 200

## Physical Dimensions and Structure

- **Overall Dimensions:** 90 x 60 cm x 25 cm
- **Chassis:** Aluminium 6061-T6
- **Shell:** PETG
- **Vehicle Weight:** 70 kg
- **Payload:** 200 kg
- **Movement:** Omnidirectional

## Motors and Wheels

- **Motors:** 6 x 1.8 Nm torque, 148 RPM planetary gear motors
- **Wheels:** 6 x 100mm Omni Wheel
- **Power Output per Motor:** 27 W
- **Total Power Output:** 168 W
- **Max Speed :** 1.5m/s or 5 km/hr
- **Acceleration :** 0.5 sec



## Power System

- **Battery:** Pro-range IFR 32650 25.6V 24Ah LiFePO4
- **Charger:** FOXSUR Battery Charger
- **Estimated Runtime:** Approximately 12 hours
- **Charging Time:** Approximately 5 hours

## Electronic Components and Features

- **Control Unit:** NVIDIA Jetson Nano module
- **Sensors:** GPS, camera, and additional sensors
- **Emergency Stop**
- **Pedestrian Collision Warning**



LINK : [www.autonomx.shop](http://www.autonomx.shop)



## AX 35

## AX 200

MODEL	BRAND/TYPE	SPECS	COST/PIECE	QUANTITY	COST
Motor	Planetary DC Motor	12V 185RPM 72.5 N-cm	2400	4	9600
Motor Driver	Brushless Motor Controller	5-35V 2A	150	4	600
Battery 1	Pro-range LiFePO4 Battery	14.8V 4000mAh	1500	1	1500
Battery 2	Orange ICR18650	3.7V 2500mAh	300	5	1500
Charger	HTRC P20 Charger	12V20A	5000	1	5000
Motherboard	Raspberry Pi 4	4 GB RAM	5000	1	5000
Chassis	Aluminium	6061 T6	2500	1	2500
Body	3D Printing	PLA	6000	1	6000
Wheel	Omni Aluminium	100x40mm	1600	4	6400
Lidar	YDLIDAR X4 2D LiDAR Sensor	2D,360°,12 m Range	7500	1	7500
Camera	YDLIDAR X4	360 Degree ROS Scanner	10000	1	10000
Miscellaneous			5000	1	5000
		TOTAL	60600		

MODEL	BRAND/TYPE	SPECS	COST/PIECE	QUANTITY	COST
Motor	Planetary DC Motor	24V 148RPM 183 N-cm	5000	6	30000
Motor Driver	Brushless Motor Controller	12-36V 20A	1200	6	7200
Battery 1	Pro-range LiFePO4 Battery	25.6V 24000mAh	12500	3	37500
Battery 2	Orange ICR18650	3.7V 2500mAh	300	5	1500
Charger	FOXSUR Battery Charger	24V15A	8000	1	8000
Motherboard	NVIDIA Jetson Nano Dev Kit-B01	4 GB RAM	23000	1	23000
	Raspberry Pi 5	8 GB RAM	9000	1	9000
Chassis	Aluminium	6061 T6	15000	1	15000
Body	3D Printing	PLA	10000	1	10000
Wheel	Omni Aluminium	100x40mm	4200	6	25200
Lidar	YDLIDAR G2 360° 2D LiDAR Sensor	2D,360°,12 m Range	15000	1	15000
Camera	YDLIDAR OS30A Depth Cam	1280°920 high-resolution	12000	1	12000
Miscellaneous			15000	1	15000
		TOTAL	208400		



# LEAN CANVAS

<b>Problem</b>  1. Safety Concerns 2. Expensive 3. Time Inefficiency	<b>Solution</b>  1. Autonomous Navigation 2. Load-Lifting Mechanism 3. Smart home and warehouse Integration	<b>Unique Value Proposition</b>  "Autonomous, safe, and reliable transportation for a hassle-free everyday."	<b>Unfair Advantage</b>  Proprietary technology and design make it difficult to replicate or compete with.	<b>Customer Segments</b>  1. Elderly People 2. E Commerce 3. Small to Medium Enterprises
<b>Existing Alternative</b>  1. Traditional manual carts 2. Human labor 3. Less advanced autonomous robots	<b>Key Metrics</b>  1. Sales Performance 2. Customer Satisfaction 3. Market Penetration		<b>Channels</b>  1. Online Sales 2. Retail Partnerships 3. Social Media	<b>Early Adopters</b>  1. Old Age Homes 2. Small scale Warehouses. 3. Commercial Businesses
<b>Cost Structure And Revenue Model</b> <b>AX-35</b> Customer Acquisition Cost : Rs 75,000 Manufacturing Cost : Rs 60,000 Gross Margin : 20%		<b>Cost Structure And Revenue Model</b> <b>AX-200</b> Customer Acquisition Cost : Rs 700,000 Manufacturing Cost : Rs 400,000 Distribution costs : Rs 80,000 per month Man Power and R&D : Rs 100,000 per month Gross Margin : 40%		