



XuP-Semi Taxi

Transport of 200mm production lots with automatic pick-up and drop-off.

*Mean*WHILE

Technical specifications :

General	
Max speed	1.35m/s (4,85km/h)
Dimension (LxWxh)	700 x 600 x 1560 mm (700mm diameter)
Mechanical weight	130kg
Application	
Technology	Automatic pick-up and drop-off of up to 2 semi 200mm boxes.
Max pick-up/drop-off height	1200mm from the floor
Min pick-up/drop-off height	650mm from the floor
System lifting and lowering speed	12m/minute
Type of containers	200mm wafer box
Max weight per container	4kg
Payload	8kg
Maximum number of containers	2
Mobility	
Navigation	Autonomous trajectory generation and tracking through localization using a safety laser scanner based on environmental mapping
Movement	Obstacle avoidance and bypass through trajectory calculation
Robot map creation	Scanned by moving the robot through its environment
Max rotation speed	180°/s



Safety	
Safety laser scanner	Located at the front, Class 1 PLd Safety by ISO-13849 Max range : 15 m Field of view : 240°
Low front laser	Located at the front, Class 1 Max range : 4m Field of view : 126°
Side lasers	On both sides of the mobile robot, Class 1 Max range : 4m Field of view : 270°
Emergency Stop	3 buttons placed on each side of the robot
Rear Sonar	3 located at the rear, max range: 2 m
Front bumper	One located at the front, two pairs of sensors
Warning lights	Light discs on each side + upper LED strip
Speakers	3.5", 80W max

Human-Machine Interface	
Touchscreen	7" TFT LCD screen, 800x480 pixels
Manual Mode	Two push buttons to move the robot manually

Environnement	
Operating temperature	5-40° C
Ambient humidity	5 - 95%
Application environment	Indoor use only, limited dust, no corrosive gases
IP Class	IP20
ESD	No
ISO Cleanroom	ISO4

Floor specification	
Floor characteristics	Linoleum, epoxy or concrete (no water, no oil, no dust)
Floor flatness	FF26
Traversable step	Max : 10 mm
Traversable gap	Max : 10 mm
Climb grade	Max : 5%

Battery	
Voltage	22-30 VDC LiFePO4
Capacity	72 Ah
Run time	± 10 hours
Recharge time	± 4 hours
Battery life time	2 000 recharge cycles
Charging method	Automatic, manual



Communication	
WI-FI	IEEE 802.11 a/b/g/ac/n

Regulations	
Declaration of conformity	CE marking – ISO 3691-4

Options	
	Transmetteur Optique
	Visual presence indicator (Spot)
	RFID reader
	Wireless charger

