



## Mecanum wheels (Ilon wheel)

**Mecanum wheel.** Also known as ilon wheels It is a conventional wheel with a series of rollers attached to its circumference, these rollers having an axis of rotation at 45° to the plane of the wheel in a plane parallel to the axis of rotation of the wheel. Depending on each individual wheel direction and speed, the resulting combination of all these forces produce a total force vector in any desired direction thus allowing the platform to move freely in the direction of the resulting force vector, without changing of the wheels themselves. It is perfect for tight space.



### Benefits:

- Compact size.
- High load capacity
- Add omni direction capabilities to your vehicle

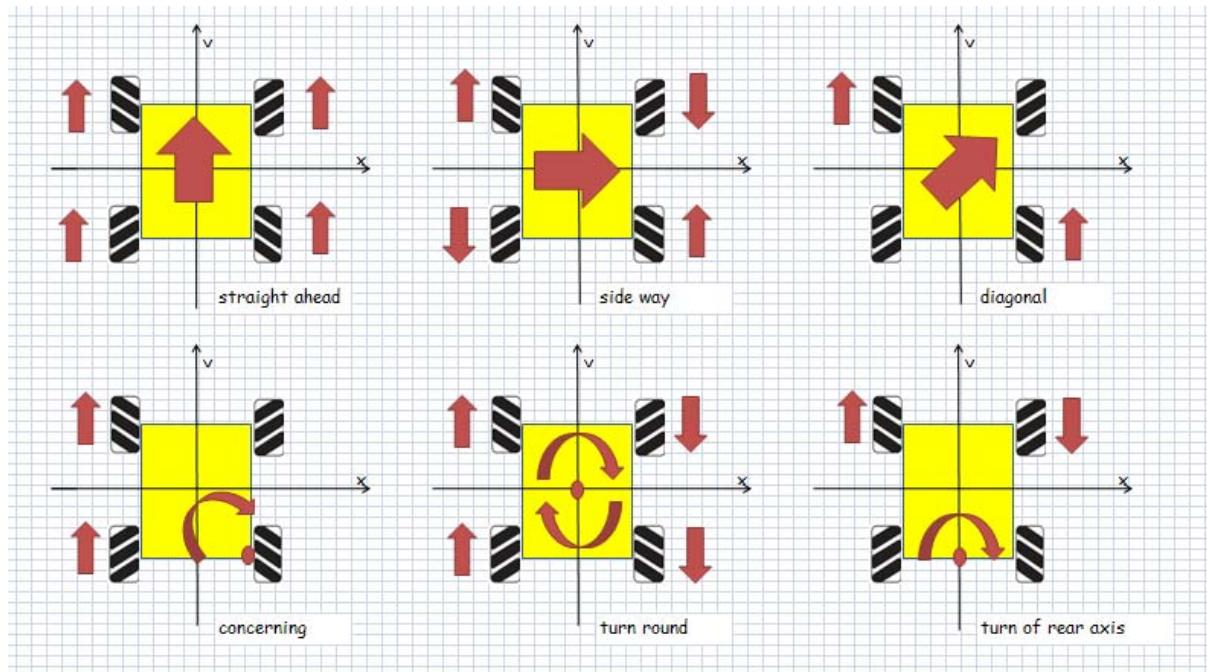
### Application:

- Robotics
- Wheelchair
- Transfer vehicle



### Characteristic:

The four mecanum wheels are each connected to a motor for independent control. The robot can move forward, reverse and spin just like four regular wheels. The configuration of rollers at 45° also allows the robot to translate sideways and through a combination of these, in any direction (even while spinning!). We splits the force into two vectors, one forward/backward and one right/left. When the wheels on one side are spun in opposite directions, the forward and backward vectors cancel out while both sideways vectors add up. Doing the reverse with the other two wheels results in four added sideways vectors.



## Nexus Robot Mecanum Wheels:



## Accessory:

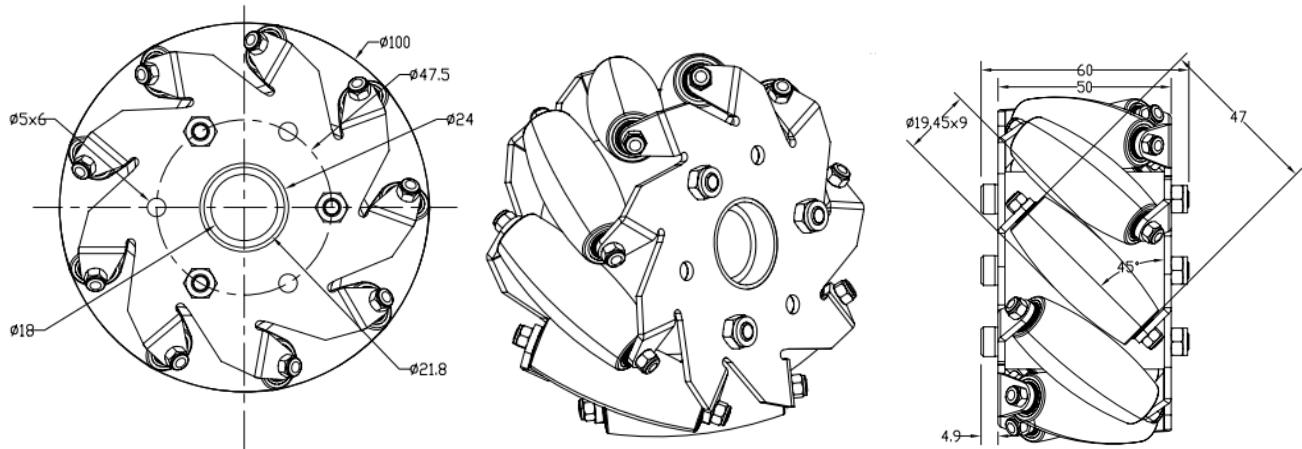


Wheel hub assembly contains a wheel bearing and a hub to mount a wheel to a motor.

## Specifications:

P/N	Description	Wheel Dia	Axial width	No. of Rollers	Body Material	Roller Material	Net Weight	Load Capacity
14092	100mm Mecanum Wheel Right	100mm	50mm	9	Aluminum Alloy	Rubber	400g	15kg
14087	100mm Mecanum Wheel Left	100mm	50mm	9	Aluminum Alloy	Rubber	400g	15kg
14095	152mm Mecanum Wheel Right	152.4mm	55.5mm	15	Aluminum Alloy	Rubber	600g	15kg
14099	152mm Mecanum Wheel Left	152.4mm	55.5mm	15	Aluminum Alloy	Rubber	600g	15kg
14126	203mm Mecanum Wheel Left	203mm	67mm	12	Aluminum Alloy	Nylon	1.6kg	50kg
14127	203mm Mecanum Wheel Right	203mm	67mm	12	Aluminum Alloy	Nylon	1.6kg	50kg

## Lay Out of 100mm Mecanum:



Dimensions are in mm