

## Rotacaster multi-directional robot wheels.

LEGO® NXT and VEX compatible and ideal for drive systems.

Built with the durability and ride quality of an industrial floor wheel, the multi-directional Rotacaster is a high performance robotic wheel.

Its unique construction makes it the toughest, smoothest and fastest robotic wheel on the market with a range of roller softness for enhanced traction, load capacity and durability.

Fully bushed rollers engineered to minimise play on axles ensure smooth and consistent motion. The injection-moulded frame guarantees no lost rollers, with an engineering grade polymer structure and no steel inserts or pins.

### Smoother

- Engineered to minimise roller play on axles
- Fully bushed rollers ensure smooth consistent motion

### Tougher

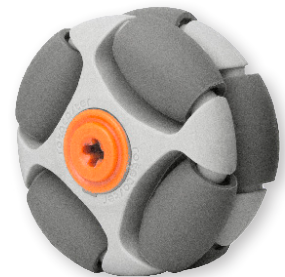
- Fully injection-moulded frame - no lost rollers
- Engineering grade polymer structure – no steel inserts or pins
- Choice of polyurethane rollers for optimum durability

### Flexibility

- Ready-to-use with LEGO X axle or VEX 1/8" axle compatible hubs
- Alternative hub inserts
- Different sized wheels (35mm, 48mm & 125mm) available for various projects.



35mm Rotacaster Wheel



48mm Rotacaster Wheel



125mm Rotacaster Wheel

## Robotic Application using Rotacaster wheels



Pocket Printer by ZutaLabs



Wheelchair by Esclatec

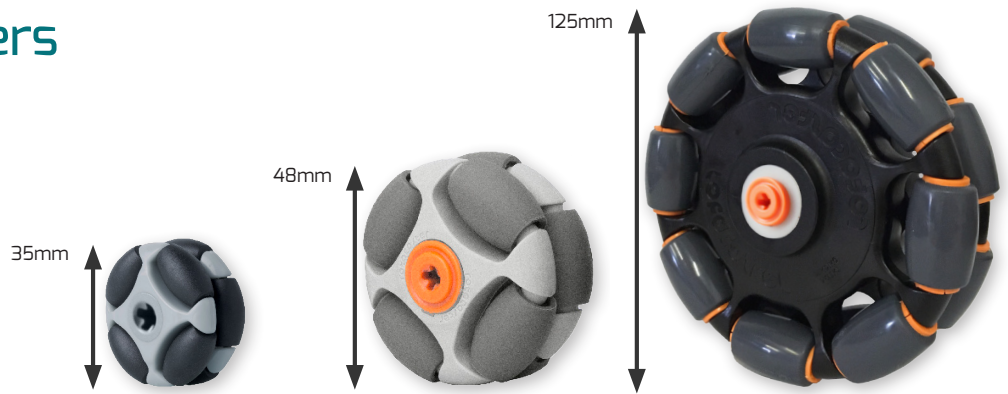


Robotino by Festo



LEGO Mindstorm with RC

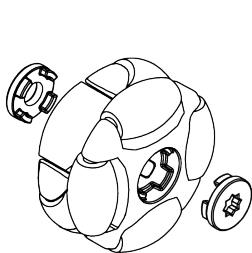
## Wheels and Rollers



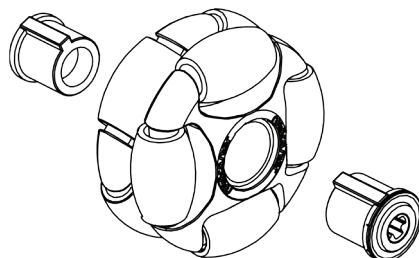
Wheel Diameter	35mm		48mm		125mm	
No of wheel bodies	2 (R2)		2 (R2)		2 (R2)	3 (R3) (Triple)
Roller Diameter	9.5mm		13mm		20mm	
Body material	ABS		Nylon		Polyketone	
<b>Rollers</b>						
Roller type	overmoulded		overmoulded		overmoulded	
Roller material	TPE (40A)		TPE (35A) (grey)	TPU (65A) (orange)	TPU (85A)	
Roller Characteristics	Maximum traction for acceleration and speed, ideal as a competition wheel		Maximum traction for acceleration and speed, ideal as a competition wheel	Good combination of traction for acceleration and speed, load capacity, durability, good all-round performer	Outstanding durability and traction for larger robotic applications.	
Wheel load capacity (lateral)	2.5kg		5kg	18kg	30kg	30kg
Total weight (per wheel)	13gm		38gm	38gm	315gm	485gm
<b>Bushings / hubs</b>						
Hub / Bore width	8.2mm		12.7mm (1/2")	12.7mm (1/2")	18mm keyed	18mm keyed
Material	ABS		ABS	ABS	ABS	ABS

	35mm	48mm		125mm	
Bearing Seat / keyed	R2-0354-40	R2-0484-35	R2-0484-65	R2-1258-85BLKR	R3-1258-85BLKR
LEGO® hub	R2-0354-40/LX	R2-0484-35/LX	R2-0484-65/LX	R2-1258-85/LX	R3-1258-85/LX
VEX hub (1/8" square)	R2-0354-40/VX	R2-0484-35/VX	R2-0484-65/VX	R2-1258-85/VX	R3-1258-85/VX

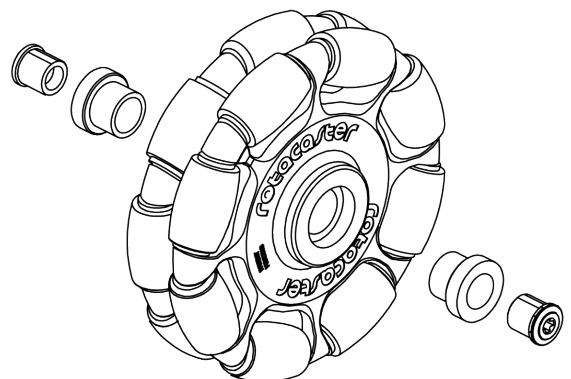
## Hubs and Inserts



35mm Rotacaster Wheel with LEGO hub



48mm Rotacaster Wheel with LEGO hub



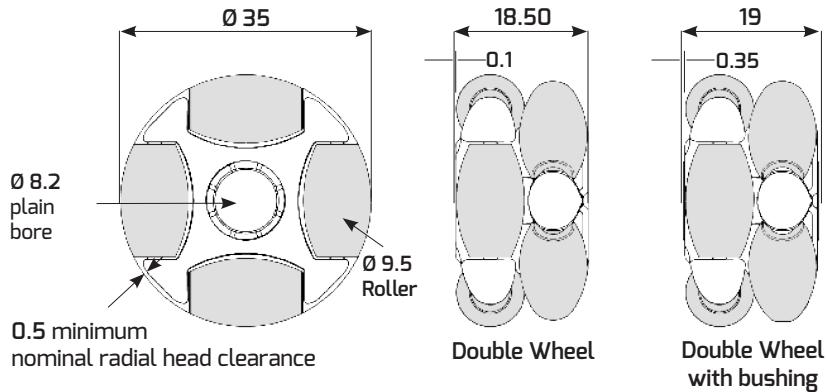
125mm Rotacaster Wheel with VEX hub

© 2016 Rotacaster Wheel Pty Ltd

## Wheel Dimensions

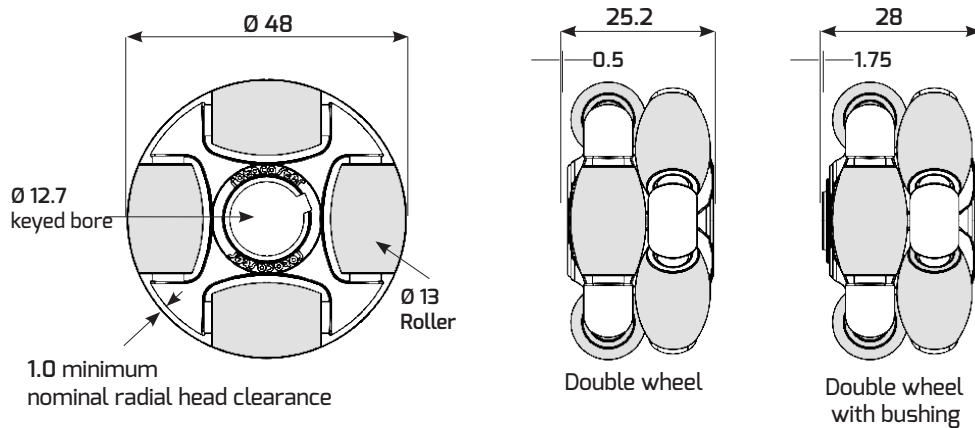
### 35mm Rotacaster

Weight: 13gm



### 48mm Rotacaster

Weight: 38gm



### 125mm Rotacaster

Weight  
R2: 315g  
R3: 485g

