

BAXTER MOBILITY BASE

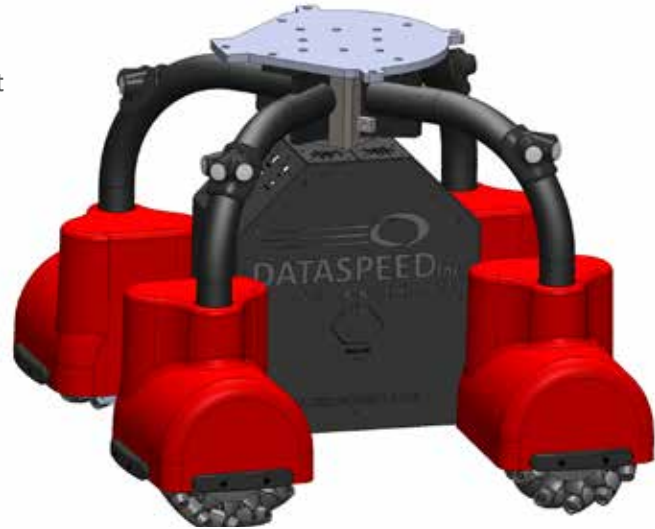
Dataspeed is proud to introduce the Baxter Mobility Base, an add-on that gets Baxter to travel anywhere. A Mecanum wheel system enables any combination of translation and rotation. Baxter can move forward, backward or sideways while independently controlling its rotation. Baxter is able to travel on most flat surfaces like carpet, tile, cement and asphalt. The compact base (30.5" by 32.2") enables Baxter to travel through office hallways and doorways. Check out these features of the Baxter Mobility Base:

FEATURES:

- Mecanum wheel system for maximum mobility. 4-wheel independent suspension for maximum traction.
- High performance encoder/servo controllers precisely controlling velocity.
- 360 degree obstacle detection and avoidance using ultrasonic ranging.
- 360 degree collision detection using bumper switches.
- Embedded PC with solid state hard drive and Intel i5 processor.
- Integrated 9 DOF IMU (3-axis rate, accel, magnetometer).
- Downward facing camera for precision navigation using optical registration based on QR codes.
- 24 volt battery and charging ports.
- ROS Indigo operating system enabling tight integration with Baxter.
- Dimensions: 30.5" front to back, 32.2" side to side and 24.1" bottom to top. (60.9" top of Baxter). Weight: 150 pounds, Top speed: 5 mph.

OPTIONAL ACCESSORIES:

- 24V power inverter backpack available to power Baxter from Mobility Base battery pack.
- 2-D LIDARs on front and back enabling obstacle detection and rerouting of path.
- UWB-based wireless navigation system for precisely controlling Baxter's path in office and factory environments.
- First Person Trainer for easy teleoperation of Baxter's joints.



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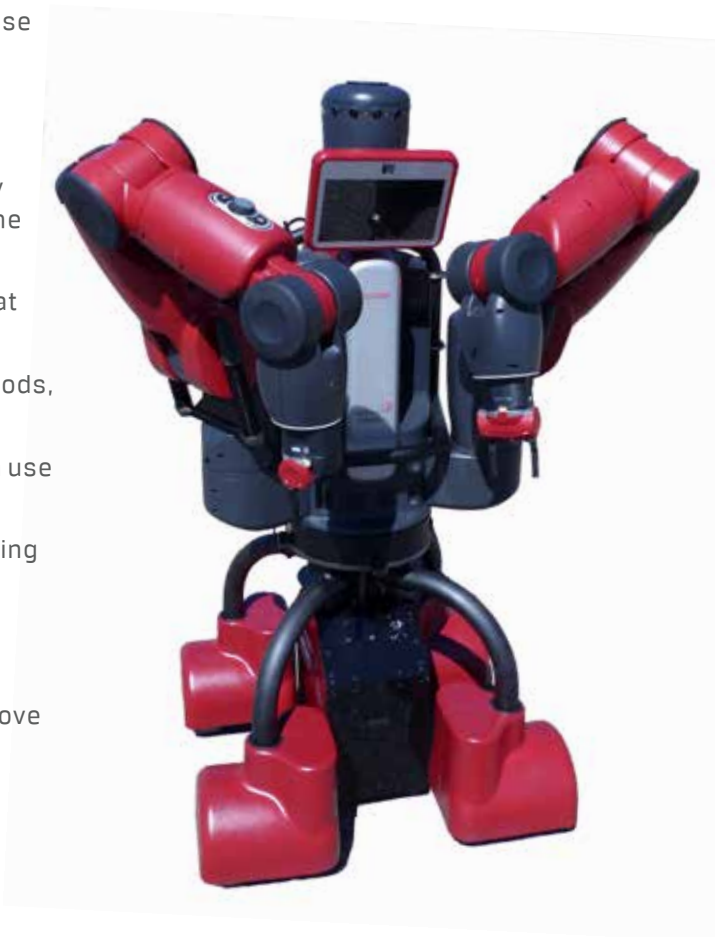
T: 248-879-0528

W: www.dataspeedinc.com

The ability of Baxter to move in any direction or orient itself at any angle creates new opportunities to put this unique robot to use. Combining the mobility base with the wireless UWB navigation system enables Baxter to travel throughout your building, even venturing outside. The use of wireless technology eliminates the need to bury cable or glue down magnetic strips. Baxter has the capability to open doors and ride in elevators, giving it access to more of your building. The First Person Trainer can teleoperate Baxter's arms and grippers. Following are some potential uses for a mobile Baxter:

POTENTIAL USES OF MOBILE BAXTER:

- **LOGISTICS** - Baxter can place or retrieve material at your warehouse using your existing rack systems.
- **SECURITY** - Baxter can continually move within your building, performing security functions.
- **MANUFACTURING** - Baxter can bring line workers the material they need, when they need it, and then deliver the finished goods to the shipping department.
- **RETAIL** - Baxter can scan your store shelves and let you know what your physical inventory is, then help to restock the shelves.
- **QUALITY CONTROL** - Baxter can maneuver around your finished goods, performing a variety of inspections.
- **TELEPRESENCE** - Baxter can come to your workspace and you can use its monitor and camera as part of telepresence.
- **MANUFACTURING** - Baxter can attend your machining center, loading and unloading material.
- **FIRST RESPONDER** - Baxter can be sent into buildings that may be harmful to people.
- **MANUFACTURING** - Multiple Baxter's can be teamed together to move heavy carts of material.
- **MAINTENANCE** - Baxter can perform cleaning tasks like washing windows or vacuuming the floors.
- **SECURITY CHECKPOINT** - Baxter can maneuver around vehicles, inspecting the inside and outside.



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