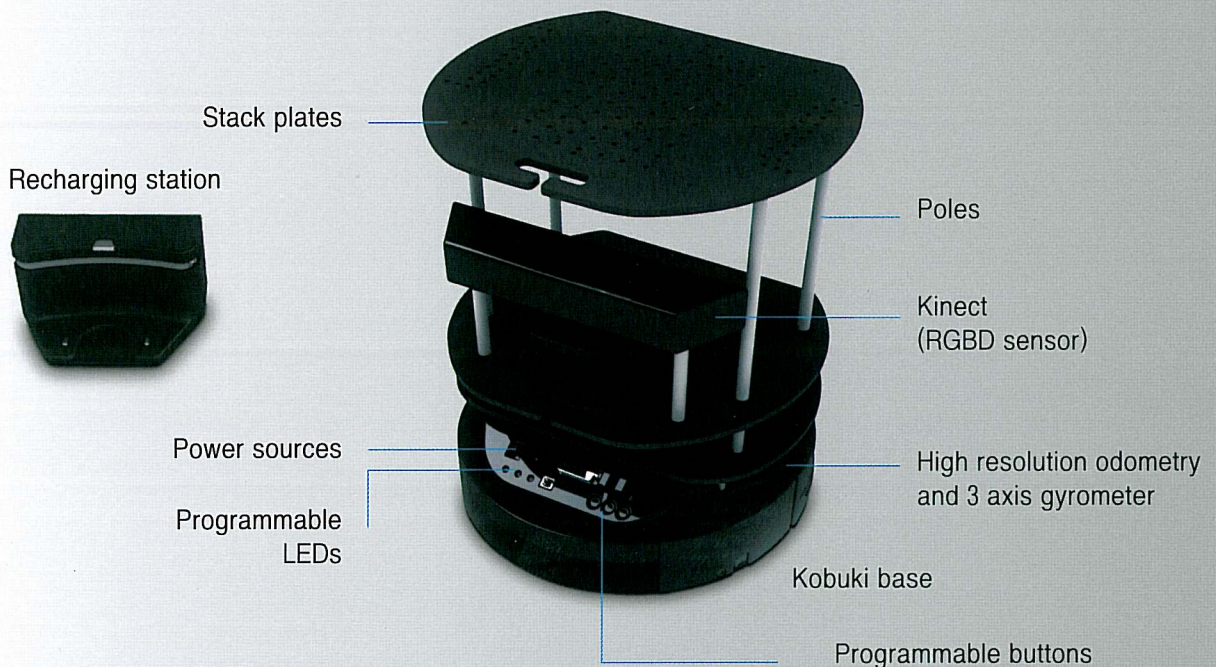


# Turtlebot 2

## Kobuki based Research Platform

TurtleBot2 is an open robotics platform designed for education and research on state of art robotics. It is also a powerful tool to teach and learn ROS(Robot Operating System) and make the most of this cutting edge technology. Equipped with a 3D sensor, it can map and navigate indoor environments. The 3D perception, together with the turtlebot arm, enables manipulation tasks.



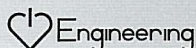
### Software Ecosystem

OpenNI framework  
OpenCV & PCL  
Navigation stack  
Perception & manipulation  
Paired Android-robot apps  
Gazebo simulation  
ROS

### Wide community

Web Site	<a href="http://turtlebot.com">http://turtlebot.com</a>
Github	<a href="https://github.com/turtlebot">https://github.com/turtlebot</a>
ROS Wiki	<a href="http://ros.org/wiki/turtlebot">http://ros.org/wiki/turtlebot</a>
ROS Answers	<a href="http://answers.ros.org">http://answers.ros.org</a>
Google+	<a href="https://plus.google.com/101989863972881638653/posts">https://plus.google.com/101989863972881638653/posts</a>

### Partners





# Kobuki

iCLebo Kobuki is a low-cost mobile research base designed for education and research on state of art robotics. With continuous operation in mind, Kobuki provides power supplies for an external computer as well as additional sensors and actuators. Its highly accurate odometry, amended by our factory calibrated gyroscope, enables precise navigation.

## High Quality Platform

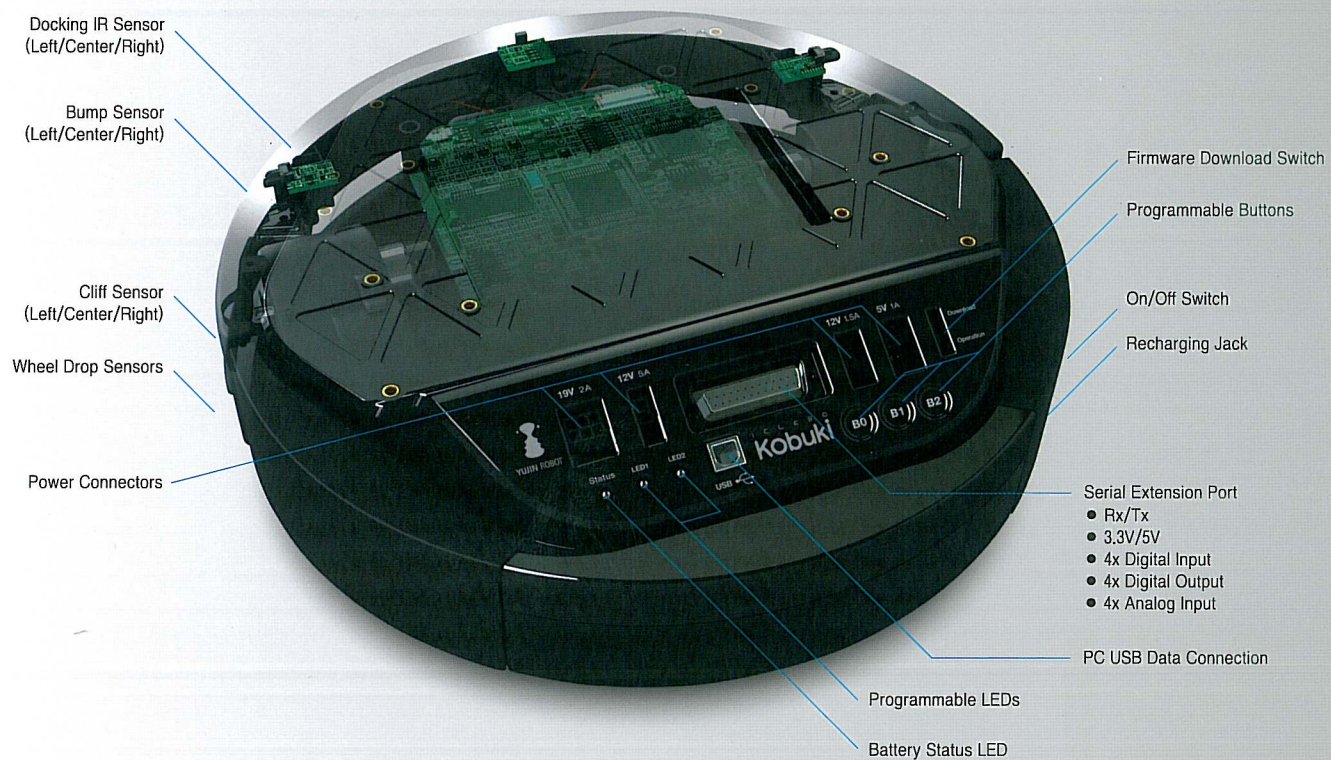
Motors, battery, base  
Various power sources  
C++ driver for Linux and Windows  
High resolution odometry  
Affordable

## WHAT

General purpose research platform  
A component in multi-robot systems

## WHO

Student / Professor  
Researcher  
ROS beginner  
Hobbyist



## Kobuki Specs

Max speed	700 mm/sec 180 deg/sec
Odometry	Built-in 3-axis gyrometer High resolution wheel encoder (11.7 ticks/mm)
Battery	Lithium-ion 4S1P (2200 mAh) 4S2P (4400 mAh) (Low Price/effective battery system)
Power sources	5V, 12V, 3.3V
Charging	Robot and laptop simultaneous charge
Firmware	Upgradable
Standard kit (base + battery + adapter)	World wide distribution

## Wide community

Web Site <http://kobuki.yujinrobot.com>  
Github <https://github.com/yujinrobot/kobuki>  
Twitter <https://twitter.com/yujinrobotrnd>  
Blog <http://blog.yujinrobot.com>  
ROS Wiki <http://ros.org/wiki/kobuki>