

# Kobuki

version 2.0



I C L E B O  
**Kobuki**

**Dabit Industries**

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## About

Introducing Korea's first robotic turtle.

kobuki [코부키] n. turtle

Kobuki is robotically engineered to be long-lived, tough and fast. With high performance batteries, Kobuki will tirelessly work alongside you through those long coffee-powered nights. He'll also happily burden himself with your modded array of sensors, actuators, laptops, embedded boards, portside cannons and do it all at a speed that makes his real world cousins seem like ... well, turtles.

Use him for serving 코메키 (chi-mek), chasing your neighbour's kids or simply, to make your own robot ideas become reality.

Kobuki is still young, don't expect him to remain as he is . Kobuki's development has already been significantly influenced by the community and as he marches towards old age, we will continue to work with the community and you to ensure he becomes better with time.

Sincerely, Kobuki Team.

## Basic Usage

### ***Warning***

Make sure to be aware of the safety guidelines.

## Charging

Connect the power adapter to Kobuki or dock Kobuki in the docking station. If Kobuki is turned on, you will hear a short sound when charging starts and the LED will light up appropriately.

LED Color	Status
Green	fully charged
Blinking Green	charging
Orange	low battery

### **Note**

The battery still charges if Kobuki is off, but you will not see the LED, nor hear sounds

## First Run

You want to see Kobuki in action without further ado? Kobuki has a special random walker mode embedded into the firmware which you can activate on start-up:

1. Turn on Kobuki.
2. Within the first 3 seconds press the B0 button and hold for 2 seconds.
3. LED2 will start blinking and Kobuki wander around.

### **Note**

This was introduced to the firmware in v1.1.0. In case your kobuki is not running this or a later version, please refer to the section about updating the firmware.



## Software

In order to gain access to all of Kobuki' s features, you will need an external computing unit (pc/laptop/tablet/embedded board) with software which communicates with Kobuki. Officially supported systems include:

Build Your Own Kobuki Driver Use the [Serial Protocol](#)

Linux C++ Application Use the [Kobuki C++ Driver](#)

Kobuki for ROS Use the [Kobuki ROS World](#)

Alternatively, you can get started with the Turtlebot 2 Platform which runs on a Kobuki base.

### **Note**

Other platforms have had experimental support at one stage or another (windows/arduino/android).

## Problems

Reach out on the following channels:

- Kobuki User's Mailing List: [kobuki-users@yujinrobot.com](mailto:kobuki-users@yujinrobot.com)
- ROS Community Answers: <http://answers.ros.org/questions/tags%3Akobuki>
- Yujin Sales Support: [kobuki@yujinrobot.com](mailto:kobuki@yujinrobot.com)
- Dabit Industries Support: [support@dabitindustries.com](mailto:support@dabitindustries.com)

### **Note**

Kobuki comes with a 1 year warranty. In case you bought Kobuki from another one of Yujin Robot's distributors, please contact them, otherwise email Yujin Sales Support.

## Advanced Usage

Replacing Batteries



Replug

Replace the cover

## Updating Firmware

If you have a ROS installation, you can find the current version by running: .. code-block:: bash

```
$ rosrun kobuki_driver version_info
```

```
# Version Info: * Hardware Version: 1.0.4 * Firmware Version: 1.2.0`
```

### *Linux*

### *Windows*

## **Serial Port Connectivity**

### ***Pinouts***

### ***Connections***

### ***Building an Application***

## Adding a Custom Sensor Array

# Specifications



# Anatomy

## Firmware

# Resources

## Changelog

- 1.0.0 : official release
- 1.0.1 : upgrading firmware link fix
- 1.0.2 : documentation link fix
- 1.0.4 : updating the spec. of serial communication
- 1.0.5 : fixing battey & connector link
- 1.0.6 : updating link after Kobuki web site revision
- 1.1.0 : reorganised and collapsed website howtos into the guide
- 2.0.0 : Port to sphinx, readthedocs, and rst2pdf

## License

## Frequently Asked Questions

# Contact