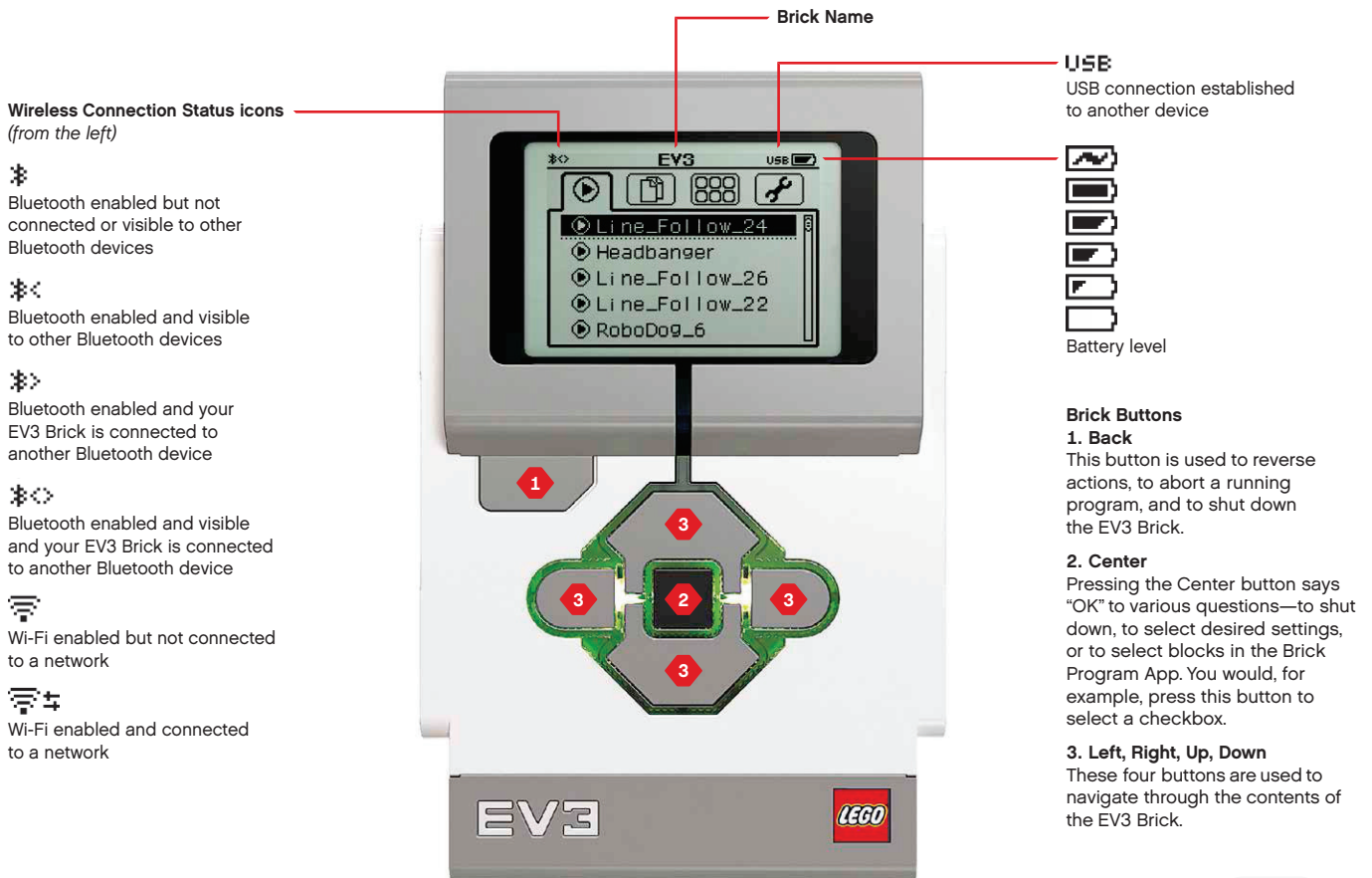# EV3 TECHNOLOGY

EV3 Brick

Overview

The **Display** shows you what is going on inside the EV3 Brick and enables you to use the Brick Interface. It also allows you to add text and numerical or graphic responses into your programming or experiments. For example, you might want to program the Display to show a happy face (or a sad face) for a comparison response or to display a number that is the result of a mathematical calculation (learn more about using the **Display Block** in the EV3 Software Help).

The **Brick Buttons** allow you to navigate inside the EV3 Brick Interface. They can also be used as programmable activators. For example, you might program a robot to raise its arms if the Up button is pressed or to lower them if the Down button is pressed (for more information, see **Using the Brick Buttons** in the EV3 Software Help).

Brick Name

USB
USB connection established to another device

Wireless Connection Status icons
(from the left)

Bluetooth enabled but not connected or visible to other Bluetooth devices

Bluetooth enabled and visible to other Bluetooth devices

Bluetooth enabled and your EV3 Brick is connected to another Bluetooth device

Bluetooth enabled and visible and your EV3 Brick is connected to another Bluetooth device

Wi-Fi enabled but not connected to a network

Wi-Fi enabled and connected to a network

Battery level

Brick Buttons
1. Back
This button is used to reverse actions, to abort a running program, and to shut down the EV3 Brick.

2. Center
Pressing the Center button says "OK" to various questions—to shut down, to select desired settings, or to select blocks in the Brick Program App. You would, for example, press this button to select a checkbox.

3. Left, Right, Up, Down
These four buttons are used to navigate through the contents of the EV3 Brick.

EV3 TECHNOLOGY

EV3 Brick

The **Brick Status Light** that surrounds the Brick Buttons tells you the current status of the EV3 Brick. It can be green, orange, or red and can pulse. Brick Status Light codes are the following:

+ Red = Startup, Updating, Shutdown
+ Red pulsing = Busy
+ Orange = Alert, Ready
+ Orange pulsing = Alert, Running
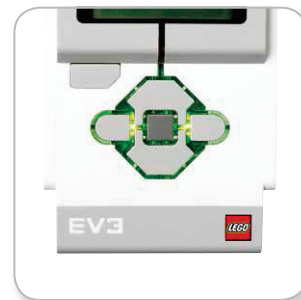+ Green = Ready
+ Green pulsing = Running Program

You can also program the Brick Status Light to show different colors and to pulse when different conditions are met (learn more about using the **Brick Status Light Block** in the EV3 Software Help).

TECHNICAL SPECIFICATIONS FOR THE EV3 BRICK

+ Operating System—LINUX
+ 300 MHz ARM9 controller
+ Flash Memory—16 MB
+ RAM—64 MB
+ Brick Screen Resolution—178x128/Black & White
+ USB 2.0 Communication to Host PC—Up to 480 Mbit/sec
+ USB 1.1 Host communication—Up to 12 Mbit/sec
+ Micro SD card—Supports SDHC, Version 2.0, Max 32 GB
+ Motor and Sensor Ports
+ Connectors—RJ12
+ Support Auto ID
+ Power—6 AA batteries/ rechargeable

Brick Status Light – Red

Brick Status Light – Orange

Brick Status Light – Green