USER'S MANUAL

Backspin Innovator's Edition
by: Nod Labs

October, 2015

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	10/05/15	User's Manual Creation

1.0 GENERAL INFORMATION

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1.1 Overview

The Backspin Innovator's Edition (BIE) is a unique controller for Virtual Reality in that it combines the core functionality found in standard gamepads with positional tracking and motion sensing to provide the user with a more immersive and and rewarding experience. The BIE has the following features:

- Compatible with Windows 8+ and Android 5.01+
- LED wand(s) for position tracking in 3D space
- Internal inertia measurement units (IMUs) for tracking pitch, roll and yaw
- Bluetooth Low Energy (BLE) and micro USB interfaces
- Internal Li-Ion battery for wireless functionality
- 4 face buttons, 1 analog trigger, 1 bumper button, 1 menu and 2 selection buttons
- 1 special button to simulate squeeze detection
- 1 analog stick with integrated button
- Haptic "rumble" feedback
- Internal LED lights to indicate pairing and charging

1.4 Points of Contact

1.4.1 Information

Please contact support@nod.com if you experience any issues with your Backspin Innovator's Edition device. We review emails daily and will typically respond within 24-48 hours. More information about Nod and the Backspin can be found on the Developer's Forum at: [address goes here]

2.0   GETTING STARTED

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Backspin is a wireless, Bluetooth Low Energy (BLE) device. It may be used wirelessly but it's important to know that the device does not feature a standby mode. Once it's powered ON, it will remain ON until the battery drains. For this reason, you may wish to leave Backspin continually plugged into a computer. You can expect a few hours of wireless use before the battery needs to be charged. It takes about 2 hours to charge Backspin to 100%.

To turn Backspin on, you must do the following:

1- Plug USB cable into Backspin and into the PC
2- Press and hold the "Nod Logo" (face button) + press and hold analog stick button (press down), + press and hold the bumper button. The LED will illuminate.
3- This combination of button presses will turn ON the Backspin and also acts as a reset function.

At this time, the Backspin Innovator's Edition does not have the functionality to be turned off. It will remain powered on until the battery is drained. Capability to turn off the Backspin will be added in a near future firmware update (see section 2.2 "Updating Firmware")

To pair Backspin with your device (Android 5.02, Windows 8+ or iOS 8.0+), first turn Backspin on then open the Bluetooth settings menu on your host device. You should see a device named "Nod-xxxxxx", where "xxxxxx" is the serial number of the Backspin. Select this device to complete the pairing process.

Once paired, the GREEN and RED LEDs on the Backspin will be illuminated.

2.1   Controller Buttons

Trigger buttons are typically mapped to primary game actions such as shooting and accelerating
BUMPER, TRIGGER = Primary action buttons

The analog stick is most often used for locomotion in game worlds, however it is sometimes used for menu selection or a mouse pointer emulator in games that do not support locomotion.
ANALOG STICK = Full 360 degree analog control for movement and locomotion

Face buttons are typically mapped to secondary actions
A, B, X, Y = action buttons (there is no standard mapping)

The buttons found on Backspin beneath the primary face buttons (A, B, X, Y) are typically mapped to menu navigation.

LOGO = Used to bring up the home screen or main menu
<, > = Used for navigating menus
NOD BUTTON = Often used as a "grip" button in VR for grabbing items and objects

2.2   Updating Firmware

You can easily update your Backspin firmware by following the instructions below:

1- Plug Backspin into your Windows PC using a micro USB cable
2- Press and hold the Y button
3- While keeping the Y button pressed, press both the Nod LOGO button and the analog stick button (press down, inwards towards the controller).
4- Release all buttons EXCEPT for Y
5- Now release the Y button
6- Backspin can now accept new firmware
Open the Nod app on your Windows computer and run the firmware update script found on Nods Developers website.

FCC Statements

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§15.105 Information to the user

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Industry Canada Statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.