



User Guide

For Windows

(Application version 5.3)

THE INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH MUV INTERACTIVE (“MUV”) PRODUCTS.

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN MUV’S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, MUV ASSUMES NO LIABILITY WHATSOEVER, AND MUV DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF MUV PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MUV PRODUCTS ARE NOT INTENDED FOR USE IN MEDICAL, LIFESAVING OR SUSTAINING APPLICATIONS.

MUV may make changes to specifications and product descriptions at any time, without notice.

The information in this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by MUV. MUV assumes no responsibility or liability for any errors or inaccuracies that may appear in this document or any software that may be provided in association with this document.

Except as permitted by such license, no part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without express written consent of MUV.

Copyright © 2016, MUV Interactive

BIRD is a trademark or registered trademark of MUV Interactive or its subsidiaries in the United States and other countries.

* Other names and brands may be claimed as the property of others.

Publication Date: November 2016

Revision number: 0001

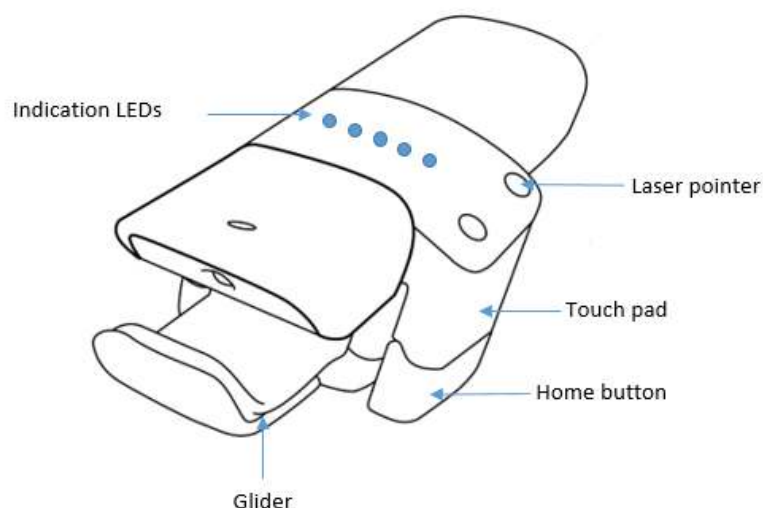
MUV Interactive Ltd., 99 Medinat Hayehudim blvd., Herzliya, Israel

MUV Interactive Inc., 1230 Midas Way, Suite 150, Sunnyvale, CA 94085 , USA

I. Table of Contents – User guide

I. Table of Contents – User guide	3
1. Bird at a glance	4
2. Accessories:	5
3. Getting started	6
4. Key Interaction Methods	7
a. Remote Touch	7
b. Swipe / Tap (Using the touch pad).....	8
c. Touch.....	9
d. Gestures	10
5. Working with multiple Birds.....	11
6. Bird Working modes	12
a. Air-Mouse.....	13
b. Multi Bird.....	13
c. Standard	14
7. Bird Application	15
a. Status bar (The status bar stays fixed on the top of the application)	15
b. Main dashboard	16
c. Advanced Settings.....	17
d. Connection	19
e. Calibration	21
f. Performance	23
g. About tab.....	24
Appendix 1: Radio Frequency Scanning.....	25
Appendix 2: Personalize Bird	26
Appendix 3: Pre-programmed gestures for PowerPoint	29
Appendix 4: Troubleshooting.....	30
Safety Information	34
FCC Radio frequency interference statement.....	37

1. Bird at a glance

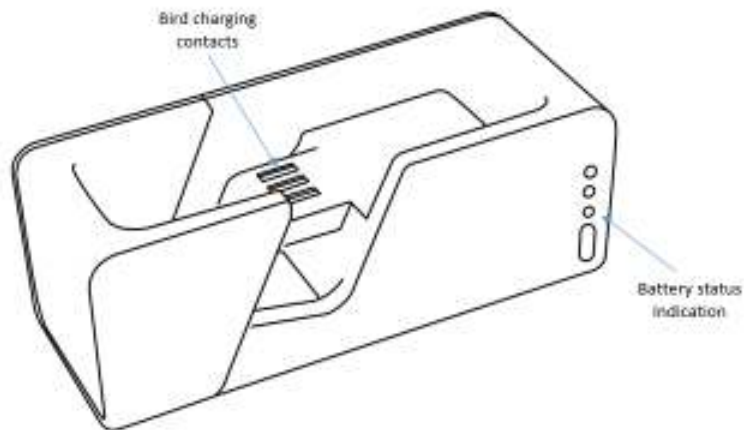


Indicator LEDs	- The 5 LED lights on the upper-side of Bird indicate the battery status of Bird. (Full: all are lit. 1 light - Must charge immediately) - When working with more than one Bird – the active Bird will have 2 indication LEDs on
Glider	- The bottom of the Bird's Glider is used when touching the display - When using remote touch, soft touch of the thumb on the Glider will move the cursor, while clicking on the Glider will select an object
Touch Pad	- The Touch Pad is used for scrolling by gently swiping the thumb up, down, left or right on the touchpad surface. - Tap on the touch pad will perform as right click on the mouse
Home Button	- One click on the home button to Esc - Double click on the home button to display open applications on a split screen (Win logo + tab) - Long press on the home button to display the desktop - If Bird is not connected, click on the home button for 5 seconds to connect it
Laser pointer	The Laser Pointer is used to highlight the place you are pointing at on the display area with a red laser beam. <i>The laser pointer is used only during the remote calibration process.</i>

2. Accessories:

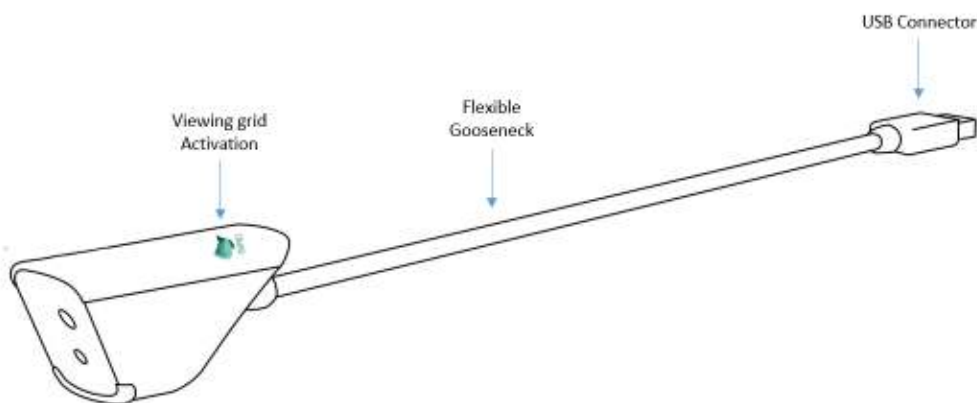
Charging cradle

Used to store Bird when not in use and to charge it. (The cradle does not have to be connected to a power outlet to charge Bird).



Base-unit

Used to gather information from Bird, analyzing its location and providing interactive commands to the software or application you are controlling.



3. Getting started

Bird communicates directly with your devices and acts as their controlling device. It enables rich interaction with digital content and media as it is displayed on a screen, wall, table or any other surface. With Bird on your finger, you will now be able to control your content naturally and instinctively, from anywhere in the room, away from your PC.

This user guide will walk you through the different interaction methods that Bird supports; including touch, remote touch and gesture control.

Before you start using Bird for the first time, you have to download the Bird's application from the following link: <https://www.muvinteractive.com/birdapp> and install it on your PC.

Once the application is installed, you should connect the Bird's base unit to any 5V power source via USB. You will know that the Base unit is connected, by a 'v' sign next to the word Base unit in the Bird application

(for detailed instructions about Bird's installation process, please read the installation guide).



Get ready to fly - wear the Bird on your index finger:

Insert your Right Hand index finger delicately into Bird as per the drawing. Make sure that the tip of your finger sits comfortably against the Glider. Bird should feel comfortably snug around your finger.



The Bird's application and the Base-unit will automatically recognize that Bird is ready for use. You will know that your Bird is connected by the circle next to the words "Bird unit" at the top of the Bird application.

When using Bird for the first time you should click on the 'Home button' for 5 seconds until you see the following message: 'Bird with ID xxxxx tries to connect. Allow'. Click on 'Yes' to pair the Bird.



Full circle = Active Bird
Empty circle = Connected Bird, not active
Signal icon = Signal strength of the active Bird
Battery icon = Battery status of the active Bird

4. Key Interaction Methods

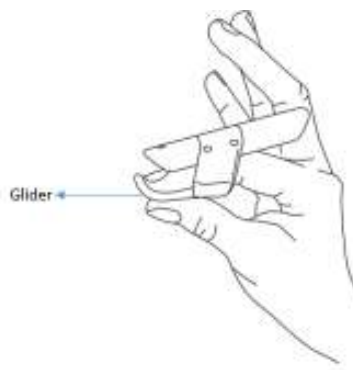
Bird Supports 4 key interactive methods:

- **Remote Touch** is used to precisely control content remotely (from hovering closely over the display area to standing 10m away from it)
- **Swipe*** is used for scrolling up, down, left and right
- **Touch** is used for physically touching the display surface
- **Gestures*** are used to control content using large hand movements

** Gestures and swipe can be defined by the user to produce different desired actions*

a. Remote Touch

Control content from any place in the room by pointing your index finger to the display area, while touching the Glider surface with your thumb.



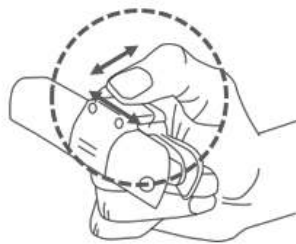
- **Pinch** - Gently touch the glider with your thumb and point the front of Bird to aim the cursor to any desired spot on the screen
- **Click** - Press your thumb against the glider to select an object
- **Double click** to activate applications
- **Click and drag** to move an object (or paint, annotate, write etc.)

b. Swipe / Tap (Using the touch pad)

Bird's touch pad can be used for scrolling, if applicable in the application.

Gently move your thumb over the touch pad and swipe it in the direction you wish to scroll (Up/Down/Left/Right).

You may also customize swiping to produce different desired actions. The customization is set specifically for each software application you control with Bird. Please read Appendix 4 for further explanation about this feature.

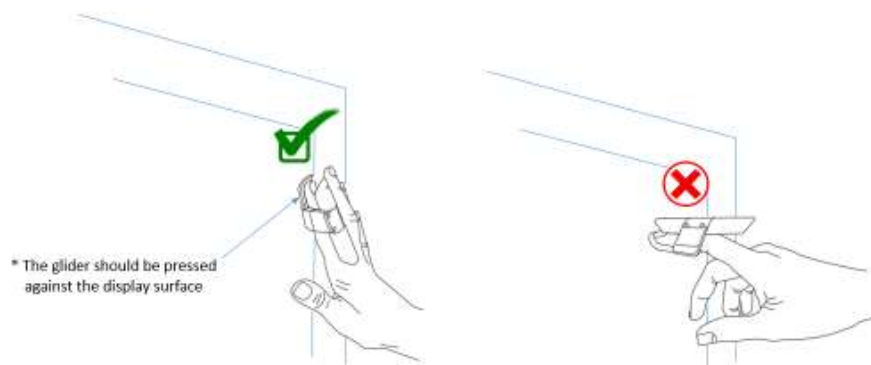


- **Swipe up/down:** Move your thumb up/down on the touchpad to scroll (if applicable in the application)
- **Swipe left/right:** Move your thumb left/right on the touch pad
This action is application dependent (e.g. in Chrome browser – it will move between open tabs; In power point it will move to the next/previous slide)
- **Tap and hold:** Tap and hold your thumb on the touchpad – to presents options related to what you're doing (like right-clicking with a mouse)

c. Touch

Bird's touch functionality turns any surface into a touch screen. With Bird on your finger you can **annotate** on the projected surface, **paint** on it, **drag and drop** objects, **click** on objects and perform precise and gentle actions on the big screen.

To use touch with Bird, press the Glider against the display surface as shown in the drawing below.



- **Touch** to select object
- **Double tap** to activate applications
- **Touch and drag** to move objects (or paint, annotate, write etc.)

d. Gestures

Using the Gestures feature of Bird will give you the ultimate freedom of movement when delivering your message in front of presented visual content.

Currently the system supports 4 hand gestures – Waving your hand up, down, left and right.

When performing gestures, you need to swing the palm of your hand to the desired direction, while bending your wrist inwards.

TIP: To switch between positions: Relax your arm at your side for a few seconds. You can then proceed to your next desired gesture choice

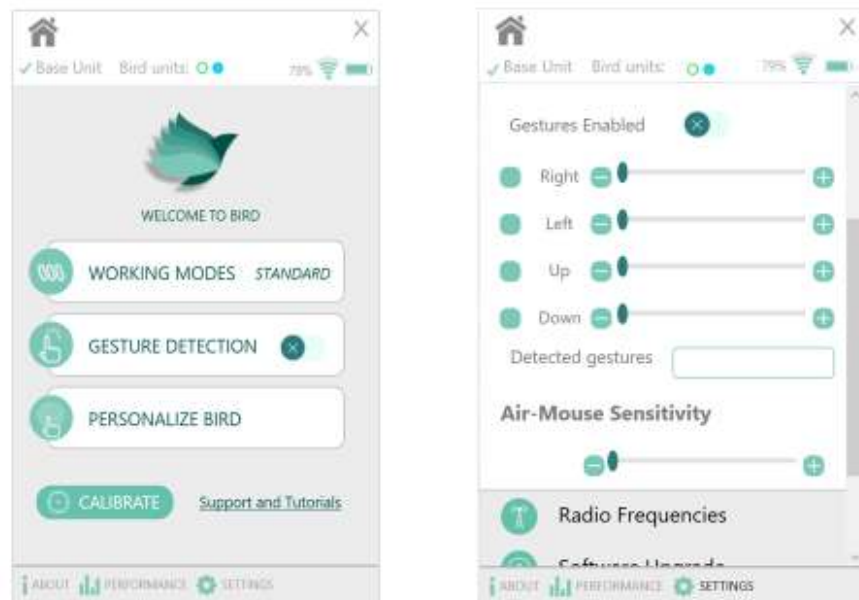
Activate Gestures:

Open the Bird application and click on **Gestures detection**

Set up gestures sensitivity:

→ Click on **Settings** at the bottom of the application → Select **Gestures sensitivity** → Move the slider next to each gesture to set up its' sensitivity

You may deactivate one or more of the gestures and keep only the gestures you need activated



TIP: To practice gestures, go to Gestures sensitivity and look at Detected gestures to see whether your gestures were recognized. If the system does not recognize your gestures, try slower movements.

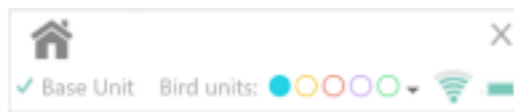
5. Working with multiple Birds

The Bird system takes social interaction to a whole new level, by allowing up to 5 users to interact with the same content.

Connect a new Bird

To connect a new Bird to the system, put it on your finger click on the 'Home' button for 5 seconds until you see the following message: 'Bird with ID xxxxx tries to connect. Allow'. Click on 'Yes' to connect the Bird.

You can see the connected Birds in the status bar at the top of the Bird application. Each Bird is represented by a circle in a different color.



Activating / Deactivating Bird (in standard and Air-Mouse mode)

At any given moment, only one Bird can be active and control the content. To activate a Bird, you should touch the Glider by pinching your index finger and thumb together. When you want another Bird to take control you should “release” the session by lowering the palm of your hand in a 90 degrees’ angle. The next user can now activate Bird and take control.

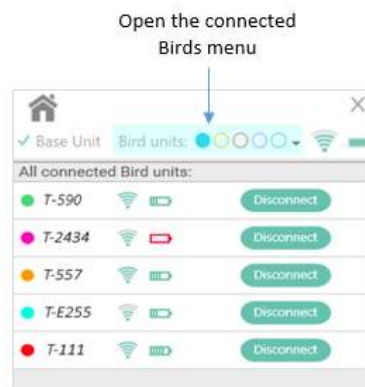
To help you recognize the active Bird, every Bird has a feedback point in a different color. This way you can easily learn who is controlling the session at the moment.

In Multi Bird mode all the connected Birds can be active simultaneously.

Manage connected devices

To view and manage your connected Birds, click on the ‘Bird units’ area on the status bar. This will open the **connected Birds menu**. From the menu you will be able to see the status of each Bird’s battery and the strength of its’ signal. You will also be able to disconnect a Bird.

Please note that the system supports up to 5 Birds, if a 6th Bird attempts to connect, you will be asked to disconnect one of the Birds.



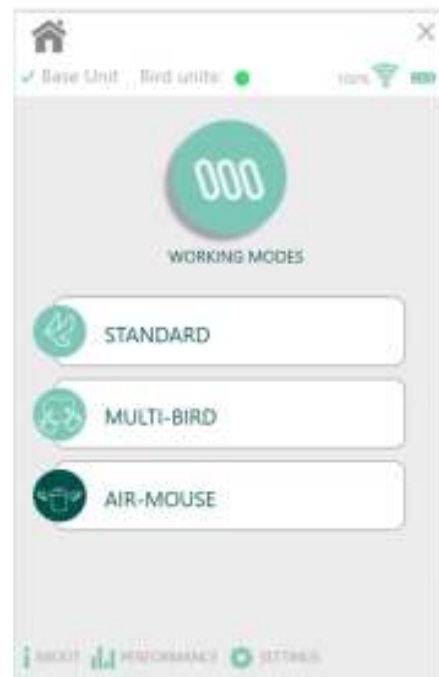
6. Bird Working modes

The Bird system offers 3 working modes: **Air Mouse**, **Multi-Bird** and **Standard**. You can select your working mode by clicking on '**Working modes**' in the main dashboard of the Bird application. To make it easier for you to identify the working mode you are using, each mode has a different cursor:

 Standard mode cursor

 Multi-Bird mode cursor

 Air-Mouse mode cursor



a. Air-Mouse

Air-Mouse is the default mode of the Bird system and it is a perfect mode for you to get familiar with the Bird system or when you need a quick setup. It is a simple and intuitive plug and play mode, which allows you to control any type of display. All you need to do is connect the Base unit and put Bird on your finger. Make sure they are both connected by looking at the status bar at the top of the Bird application.

Air-Mouse mode is the best mode for working with TV's or in cases the light conditions does not allow you to work in standard mode. In addition, it is the best working mode for cases when you need to setup the system quickly and with minimum effort.



You may also use touch in Air-Mouse mode, however, keep in mind that in order to use touch, you will be required to aim the base unit to the projected area and perform Geometric calibration.

***TIP:** In takeoff mode you should only move the palm of your hand (and not your wrist) to control the content.*

b. Multi Bird

In Multi Bird mode up to 5 users can interact with the same content simultaneously. Every user that has Bird on his finger can control the content from anywhere in the room, using his favorite interaction method. For example, a few users can paint or annotate together on the display (using touch or remote touch), play multiplayer games or interact with the content together in a meeting.

Please note that Multi touch is only available in standard mode.

*Tip: Multi Bird mode uses **Windows Touch features** – use this link to learn more about available features: <https://www.microsoft.com/surface/en-us/support/touch-mouse-and-search/using-touch-gestures-tap-swipe-and-beyond?os=windows-8.1-rt-update-3&=undefined>*

c. Standard

Standard mode lets you take advantage of all the benefits that system offers. In this mode the system knows the exact position of your hand at any moment and therefore it provides you with pixel perfect precision and with the smoothest interaction. Every small movement of you hand will be recognized by the system and it will always know exactly where you're pointing at.

Standard mode is recommended when working with projectors and in cases the setup of the room does not change, therefore it is the optimal mode for meeting rooms, classrooms, large venues, etc.

Please note that working when you start working in standard mode, you will be asked to calibrate the system. The calibration process helps the Base Unit study the conditions in the room in order to ensure the optimal functionality of Bird. The process comprises of 2 parts: adopting the system to light conditions in the room (Optical Calibration) and setting the area you are interacting with (Geometric Calibration)

Once you switch to **Standard mode**, the Bird application will automatically launch the calibration process. Follow the instructions to calibrate the Bird system.

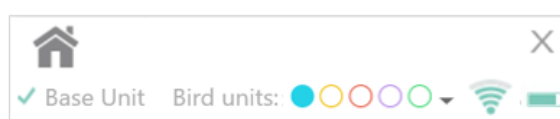
(for detailed instructions about Bird's installation process, please read the installation guide).

7. Bird Application

The Bird application is your control panel for Bird. from activating predefined applications such as controlling drones or IoT devices to personalizing the sensitivity of the gestures.

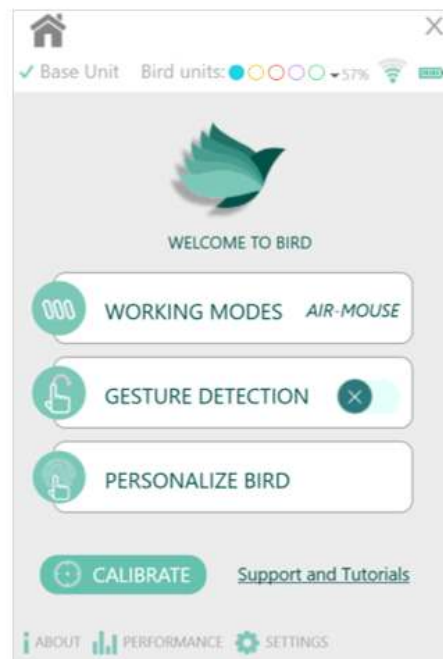
At the top of the application, you will always see the status bar which indicates whether the base-unit and Bird are connected and as well as the battery status of Bird.

a. Status bar (The status bar stays fixed on the top of the application)



Base unit 	* Green "V" sign next to the word base unit indicates that the base unit is connected * Red "circle" indicates that the base unit is disconnected * When the base unit is disconnected, click on the word "Base unit" to go to the connection tab and connect the Base unit.
Bird Units 	* Each connected Bird is presented on the status bar with its' own color * A colored circle represents the active Bird at the moment * An empty circle represents connected Birds that are not active at the moment * The red battery icon indicates that a Bird has low battery * The signal icon shows the quality of the Bird's system communication (in percentages). When the communication level is low it is recommended to switch to a different communication channel to improve the system's performance. To do that, click on the settings icon; select 'Radio Frequencies'; and then click on 'Auto Scan' * The battery icon shows the status of the battery of the active Bird
Home icon 	* Click on the home button to go to the app's main dashboard
Minimize icon 	* Click on the 'X' icon to minimize the Bird application. You may also do that

b. Main dashboard



Working mode



The Bird system offers 3 working modes: Standard, Air mouse and Multi touch. The default mode of the system is standard.

Click on Working modes to open the working modes dashboard and select a different working mode.

For more information about working modes please read [section 6](#)

Gestures



Click on **Gesture detection** to enable gestures functionality. Click on it again to deactivate it.

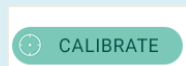
You may click on '**Settings**' at the bottom of the application to modify the sensitivity of your gestures, and enable or disable a specific gesture.

Personalize Bird



Click on '**Personalize Bird**' to set specific interaction methods that produce different desired actions. The interaction methods can be personalized for each software application you control with Bird. Please read Appendix 4 for further explanation about this feature.

Calibrate



Click on '**Calibrate**' to go to the Calibration settings menu

c. Advanced Settings

In Settings you can set advanced options for optimizing the use of Bird and customizing it to your own specific preferences.



Connection

Click on **Connection** to open the **Connection dashboard**.

In this dashboard you can manage the connection of your Base unit / Base units if it doesn't connect automatically or if you wish to connect a different Base unit, and the connection of you Birds. For more information about the connection dashboard please refer to section c in the Bird application description

Calibration

Click on **Calibration** to calibrate the Bird's system. For more information about the calibration process please refer to section d in the Bird application description

Birds setting

Click on Birds settings to set the sensitivity the following parameters:

- Gestures
- Movements in Air mouse mode
- Scroll sensitivity (when using the touch pad for scrolling)

Gestures settings



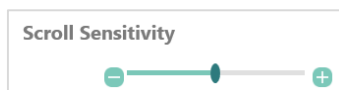
- * To Enable Gestures, click on the 'Gestures' button until the 'X' sign turns to 'V' sign.
- * Personalize the sensitivity of your gestures when using Bird. Slide the gestures sensitivity to the left to reduce sensitivity or to the right to increase sensitivity.
- * Click on the 'V' sign next to each specific gesture to activate/deactivate it.
- * When you perform gestures using Bird, the gesture will be detected and the type of gesture you perform (left/right/up/down) will be displayed next to the words "detected gestures"

Air Mouse Sensitivity



In '**Air mouse mode sensitivity**' you may personalize the sensitivity of your movements when using Bird in this **mode**. Slide the gestures sensitivity to the left to reduce sensitivity or to the right to increase sensitivity.

Scroll Sensitivity



In '**scroll sensitivity**' you may adjust the sensitivity of the touchpad when using it for scrolling up and down. Slide the scroll sensitivity to the left to reduce sensitivity or to the right to increase sensitivity.

Radio Frequencies



The **Radio Frequencies** feature allows you to scan several RF channels and choose the best one your location. We recommend to perform this action as part of the installation of the Bird system. Click on **Start Auto Scan** to scan all the channels the system supports or on **Start Manual Scan** to scan a specific range of channels.

Software Upgrades



In the case of new software versions, the system will inform you to upgrade the software automatically. (The automatic process is done once in 24 hours)

- * Click on the **Firmware upgrade** button to upgrade manually
- * Click on **Check online** to check whether a newer version is available

Open Debug Options

The Debug options are advanced system options that will usually be handled by the system's administrator with the guidance of MUV's support team.

Please note: a password is required to access this part of the application

MUV Applications

MUV Interactive supports a variety of applications you can control with Bird. Current applications include: Drones control, Phillips Hue lamp and Flash animations. (More to be added)

Please note: a password is required to access this part of the application

d. Connection



Base unit connection

- * Each Base unit has a unique serial number. The serial number can be found on a sticker on the side of the Base unit and will show up in the application as the Base unit ID
- * When there is only one Base unit in the area, the Bird application will automatically recognize it and connect to it.
- * When there are more than one Base unit, the application will display the list of Base units it recognizes and let you choose which one to use.
- * Click on the Connect/Disconnect button to connect or disconnect from a Base unit.
- * If you don't want the Base-unit to connect automatically – uncheck the box Auto Connect

Auto Connect

Untick the '**Auto connect**' check box, if you do not want the Base unit to connect automatically

Find Base unit

Click on **Find Base units** if the Base unit does not connect automatically or if you wish to connect to another Base unit.

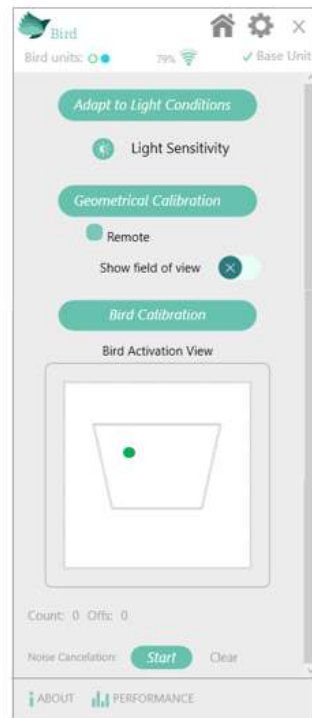
Show COM ports

In case the Bird app fails to connect to the Base unit, perform BT pairing via Windows Bluetooth settings and use this option to connect to the Base. For further details, please read paragraph #4 in the 'Trouble shooting' section (Appendix 5)

Bird connection

- * On the first time using Bird, you will need to pair Bird to the system. Click on the 'Home' button for 5 seconds until you see the following message: 'Bird with ID xxxxx tries to connect'. Allow?'. Click on 'Yes' to pair the Bird. (*The ID number of Bird can be found on the sticker on the Bird's glider*)
- * From now on, Bird will connect automatically once you place it on your finger. If it does not connect automatically, repeat the process of pairing Bird for the first time.
- * Click on the Disconnect button to disconnect Bird
- * Below the Disconnected button, you can see the ID of all the Birds that are connected to the Base units
- * You will be notified when the system identifies another Bird in the area and asked if you wish to connect it.
- * Check Reject new connections if you do not want to be notified about new Bird units in the area.

e. Calibration



System Calibration

Each working mode of the Bird system requires calibration, every calibration is performed once, or if one of the following scenarios occurs:

- * The cursor is not synced with the position of your touch
- * Bird is operating on its own without interactive input

Adopt to Light Conditions

Click on '**Adopt to Light Conditions**' to start a process that will help the Bird system learn and analyze the light conditions in the room. This will ensure the optimal functionality of Bird. For full details about the process, please read the installation guide

Start Geometric Calibration

Click on **Start Geometric Calibration** to start a process that will help the Bird system learn the boundaries of the interactive area. For full details about the process, please read the installation guide – This calibration is required for **Touch mode**

Remote

Check the **Remote** box *only in cases you cannot touch all the corners of the interactive area* in order to perform the geometric calibration – for full details about the process, please read the installation guide

Show field of view

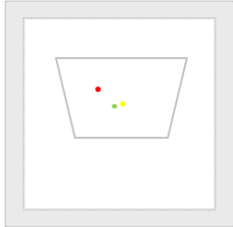
Click on the '**Show field of view**' button to activate a laser grid that will show you the boundaries of the area you will be able to interact with

Bird Calibration

This onetime calibration process calibrates the Bird's sensors. This calibration is not required for **Air Mouse mode**.

System Calibration – advanced options

Bird Activation View



The shape inside this area represents the interactive area of Bird. When you point Bird to the interactive area, you should see a dot inside the frame. If you do not see this dot it means that the infrared signal of Bird is not detected by the base unit.

If more than one Bird is used at the same time, you should see more dots in different colors – each of the dot represents a Bird.

If you see more dots than the number of active Birds, it means that the Base unit is receiving signals from other sources other than Bird.

Light sensitivity



Use this option to manually increase/decrease the Gain or Threshold of the Base-unit.

During the calibration process, the system learns the Bird optics spot size and will ignore any lights with a spot size larger than the one specified in Max Spot Size. Use this option to manually increase/decrease the value. For further details, please read the installation guide.

Noise Cancellation

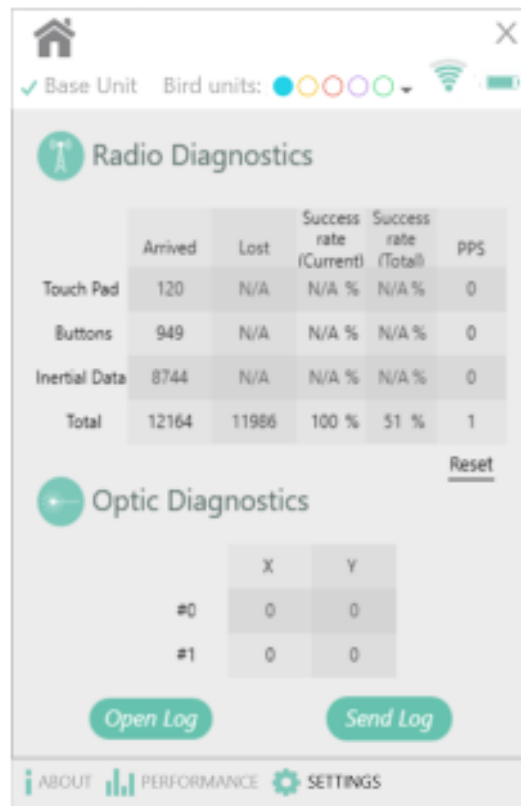
Use this option when there are certain spots on the interactive area that the base unit recognizes as the Bird interaction, even though it may not be the case. (You can view those spots on the calibration monitor.)

- * Click on **Start** to identify the spots you wish the Base unit to ignore (this means that those points will not be active for interaction with Bird)
- * Click on **Clear** to remove the spots that the system recognized

Start Bird Inertial Calibration

If you use Bird as a controller for virtual reality applications, click on '**Start Bird Inertial Calibration**' and follow the instructions on the application.

f. Performance



The information in the statistics tab is used to provide MUV Interactive's support team with technical information about the functionality of Bird.

The log files on the bottom of the tab will enable you to view a detailed report of every action related to the system or to send the Log File to MUV.

g. About tab



Bird System Information	Check the ID and version number of each one of the Bird system components
Online support	Click on the Online Support button to contact our support team by email

Appendix 1: Radio Frequency Scanning

Introduction

Bird communicates with the base unit over RF (Radio Frequencies) of 2.4 GHz. Since this band is also used by Wi-Fi, BT and additional RF technologies, it might cause interference in certain locations. The frequency scanning feature allows the administrator to scan several RF channels and choose the best one for his or her location.

1. Click on the **Settings** icon in the Bird application and select '**Radio Frequencies**'



2. Make sure that the Base unit and Bird are connected. Place Bird on your finger before you start scanning and keep it on throughout the entire process.
3. Click on Auto scan to start the scanning process – the system will start scanning all available channels and will stop once it finds a good channel (From 11 to 26).
4. Click on the '**Start Manual Scan**' button to scan a specific range of channels.

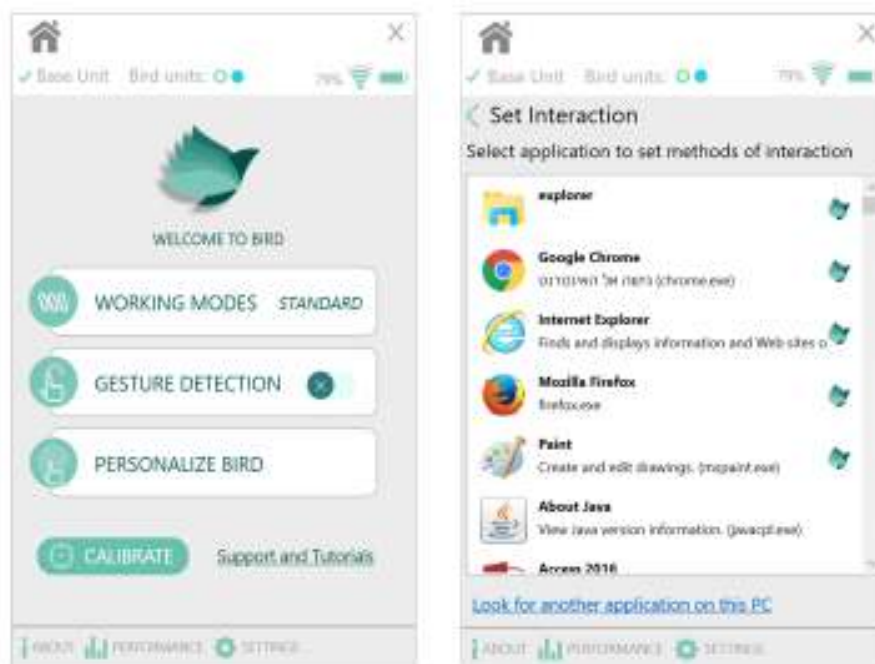
** Please note that the test duration is quite long (~5 minutes), but it should only need to be performed one time as part of the system installation.*

Appendix 2: Personalize Bird

Introduction

The '**Personalize Bird**' function enables you to customize different methods of interaction of Bird for different applications. You can either set a specific event (for example right click on the mouse) or a sequence of events (for example, Ctrl+S and then Ctrl+N).

1. Click on '**Personalize Bird**' in the main dashboard of the Bird application
2. A pop-up window will appear listing all the applications (apps) found on your personal computer. Select the application for which you wish to customize the methods of interaction. [Note: An application that has a Bird logo next to it on the right will already have pre-set interaction methods. These methods can still be modified to your specifications.]

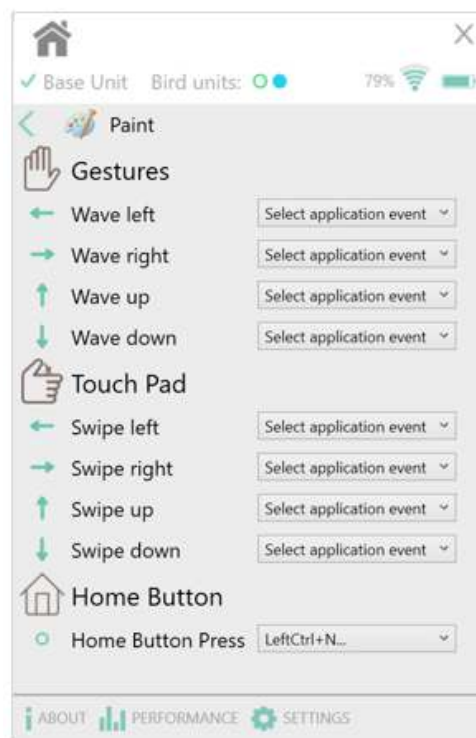


- Once you select the app you wish to customize a method for, you will see a window listing all the interactive methods. To customize an interactive method, click 'Select application event' to the right of your chosen method. A dropdown menu will then appear with a list of options. If you cannot find the option you wish to set the method to, simply select 'Map a key.'

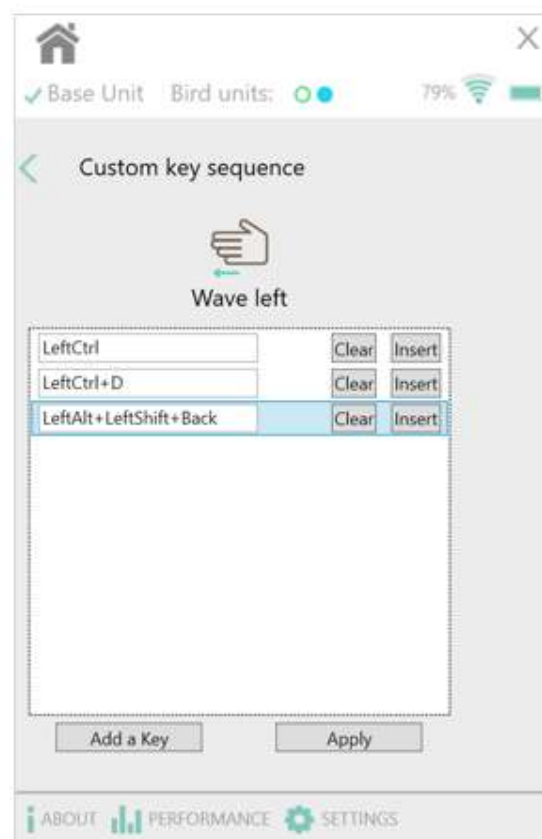
For example, if you select the PowerPoint app, you can choose the interaction method you wish to define for a specific action (such as selecting the gesture 'Wave Left').

Following this, select a method from the provided list or, to customize your own sequence for an interaction method, click on 'Map a key.'

Choose the “Clear” option on the dropdown menu to revert back to default.



4. If you select the option 'Map a key,' choose any key on the keyboard or even more than one key (for example: 'Ctrl+S') to designate it to an interaction method and click on 'activate.'
5. You also have the option of choosing a sequence of events if you wish to have more than one sequence for a method. Simply click on 'Add a key' to set the next action.
6. To cancel a sequence, select the chosen sequence and click 'Clear.'
7. Click on 'Activate' to keep a chosen sequence and continue on to the next interaction method.



Appendix 3: Pre-programmed gestures for PowerPoint

- **Move to the next slide** - Bring your palm to the right and swing to the left while bending your wrist inwards.
- **Move to the previous slide** - Bring your palm to the left and swing to the right while bending your wrist inwards.



- **Open the presentation in a "slide show" mode** - Extend your hand down and slowly bring up the palm of your hand while bending your wrist inwards.
- **Change the presentation from a "slide show" mode to "Normal" view** - Open up your palm and slowly bring your wrist down.



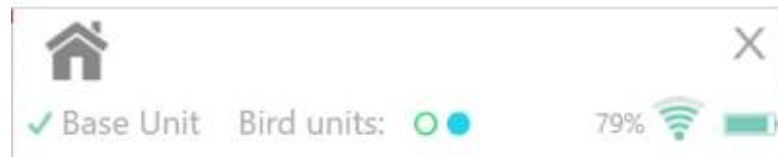
Appendix 4: Troubleshooting

This troubleshooting appendix includes basic instructions to help you fix some common issues on the Bird system. Most issues can be fixed by following the steps below.

1. I am trying to interact with Bird, but none of the interaction methods seems to be working.

- a. Open the Bird application. Look at the status bar, make sure that the Base Unit and Bird are connected.

If one or both are not connected, click on the Connection tab on the top of the application and click on 'Connect.'



- b. If Bird is still not working, make sure there is nothing blocking the view of the sensor.



- c. If Bird is partially working, make sure your shadow is not blocking Bird's view. In general, it is recommended to stand in a point where your shadow is not blocking the field of view of Bird.

2. I touched the wall (table, etc.) and the cursor is not aligned with the position where I am touching.

Repeat the calibration process in the installation guide. (pages 8-12)

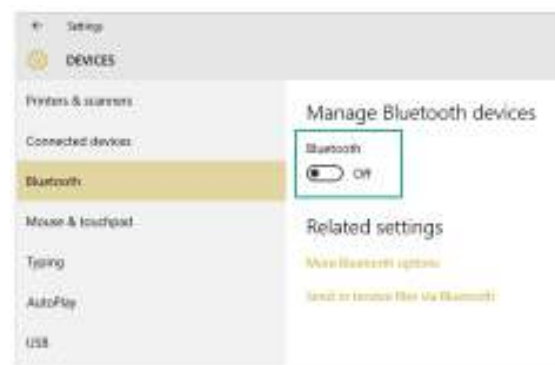
3. Bird seems to be operating “on its own” without my interactive input.

Repeat the calibration process.

4. When I try to connect to the base unit, I get a message that 'Bluetooth radio is not present on this PC or is disabled.'

Follow the instructions to turn on Bluetooth on your PC (For Windows 10)

- a. Go to Settings by selecting the Start  button, and then select **Settings**.
- b. Tap or click **PC and devices** and verify you have Bluetooth. If you do not see Bluetooth, please skip ahead to #5.
- c. Select Bluetooth and turn **Bluetooth** on.

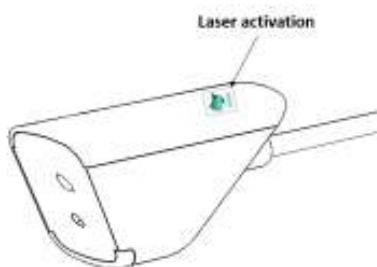


5. Bird app fails to connect to the Base Unit

- a. Try to power off and back on again the Base unit by taking it out of the USB socket/ 5V power adapter
- b. If it still does not work, perform BT pairing via Windows Bluetooth settings (default pairing code is 1234).
- c. After pairing the Base unit via Windows Bluetooth settings, open the Bird application in the connection tab, check the “**Show COM ports**” checkbox and click on the “**Find Base Unit**” button to connect to the Base Unit.

6. When I click on "Find Base units" in the Bird application's Connection tab, the application does not find any base unit.

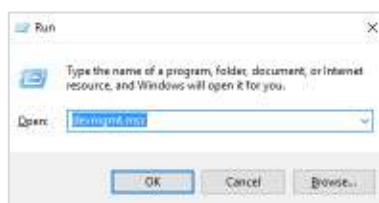
Make sure that the Base unit is connected correctly to the power source. To verify, press the Laser Activation button on the Base unit and verify that the grid laser turns on.



The Bird system is working with Bluetooth devices that support Bluetooth 2.1 and above. If you have an earlier version on your laptop/PC, you should get a Bluetooth dongle that supports Bluetooth 2.1 and follow the instructions.*

Please note that you should connect the Bluetooth dongle to your PC only after you complete the next following steps:

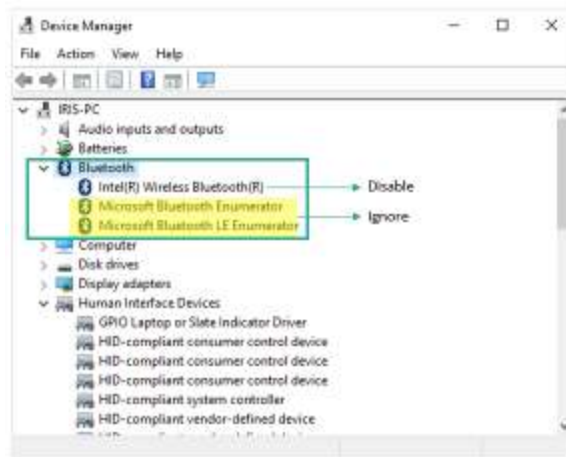
- a. Press the Windows button () + R.
- b. In the popup window on the text box type **devmgmt.msc** and then click OK.



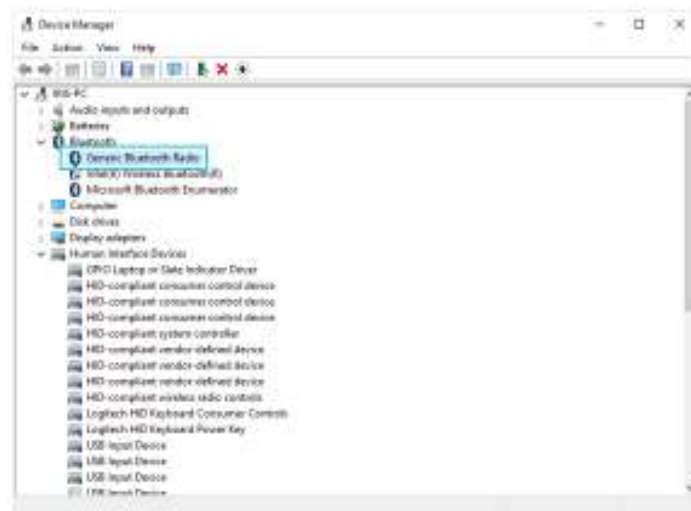
* The following Bluetooth dongle was tested successfully: **Dynamode Bluetooth 4.0 Smart Ready Low Energy USB Adapter – BT-USB-M5**
Available for purchase at:

- http://www.ebay.com/sch/i.html?_from=R40&_trksid=p2050601.m570.l1313.TR0.TRC0.H0.Xbt-usb-m5.TRS0&_nkw=bt-usb-m5&_sacat=0
- <http://www.lambda-tek.com/Dynamode-BT-USB-M5~sh/B1939925>
- <http://www.amazon.co.uk/ADAPTER-BLUETOOTH-SMART-BT-USB-M5-DYNAMODE/dp/B0118JN810>

- c. In the Device Manager Dialog window, open the Bluetooth "arrow." You should see one Bluetooth device (except for the Microsoft devices which you should ignore). If there is more than one, make sure that there is no BT dongle connected.
- d. Disable the computer's Bluetooth device (make sure none are from Microsoft).



- e. Plug in the BT dongle (version 2.1 and above) and verify that the new BT device appears in the device manager.



- f. Go back to the Bird application's Connection tab and click on "Find Base units" until you see your Base unit appear in the window.

Safety Information

⚠ This symbol identifies safety and health messages in the Product Guide and other product manuals.

Read this guide for important safety and health information that apply to the Bird system that you have purchased.

⚠ Warning:

Failure to properly set up, use, and care for this product can increase the risk of serious injury, or damage to the device or devices.

Read this guide and keep all printed guides for future reference.

⚠ Important Safety Information Battery-Powered Devices

The Bird and the cradle devices use rechargeable batteries. Improper use of batteries may result in battery fluid leakage, overheating, or explosion. Released battery fluid is corrosive and may be toxic. It can cause skin and eye burns, and is harmful if swallowed.

To reduce the risk of injury:

- Do not heat, open, puncture, mutilate, or dispose of batteries in fire.
- Do not allow metal objects to touch the cradle's 3 charging pins on the device; they can become hot and cause burns.
- Do not attempt to replace the batteries on any of the Bird units as they are rechargeable. If there is to be any replacement, please contact MUV Interactive. CAUTION – Risk of explosive if battery is replaced by an incorrect type.

Health Warning

Use of Bird or other electronic input devices may be linked to serious injuries or disorders.

When using Bird, as with many activities, you may experience occasional discomfort in your hands, arms, shoulders, neck, or other parts of your body. However, if you experience symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness, **DO NOT IGNORE THESE WARNING SIGNS. PROMPTLY SEE A QUALIFIED HEALTH PROFESSIONAL**, even if symptoms occur when you are not working at your Bird. Symptoms like these can be associated with painful and sometimes permanently disabling injuries or disorders of the nerves, muscles, tendons, or other parts of the body. These musculoskeletal disorders (MSDs) include carpal tunnel syndrome, tendonitis, tenosynovitis, and other conditions.

Do Not Attempt Repairs

Do not attempt to take apart, open, service, or modify the hardware devices. Doing so could present the risk of electric shock or other hazard. Any evidence of any attempt to open and/or modify the device, including any peeling, puncturing, or removal of any of the labels, will void the Limited Warranty.

Choking Hazard

This device may contain small parts which may be a choking hazard to children under 3. Keep small parts away from children.

Usage and Cleaning

Use in accordance with these instructions:

- Do not use near any heat sources
- Only use attachments/accessories specified by MUV Interactive.
- Clean only with dry cloth.
- Do not allow this product to become wet. To reduce the risk of fire or shock, do not expose this product to rain or other types of moisture.

Adhesive Mounting

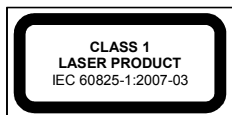
Bird's components may use adhesive tape to mount components in your workspace. DO NOT mount on antiques, heirlooms, or other valuable or irreplaceable items. After mounting, removing the adhesive may damage the cosmetic coating and/or leave an adhesive residue.

Laser and LED Specifications

Use caution with controls or adjustments or performance of procedures other than those specified herein as this may result in hazardous radiation exposure.

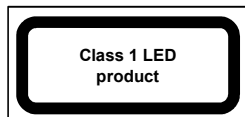
Laser

This device complies with International Standard **IEC 60825-1:2007-03** for a Class 1 laser product. This device also complies with **21 CFR 1040.10 and 1040.11** except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

**LEDs**

This product has been evaluated to comply with International Standard (IEC 60825-1:2001-08) and IEC 62471 (2006-07).

This product uses LEDs that are considered Class 1 (IEC 60825-1:2001-08).



Regulatory Information

Not intended for use in machinery, medical or industrial applications.

Any changes or modifications not expressly approved by MUV Interactive could void the user's authority to operate this device.

No serviceable parts included.

This device is rated as a commercial product for operation at +15°C (+41°F) to +40°C (+104°F).

Operation is subject to the following two conditions:

(1) This device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

To comply with RF exposure requirements, the following operating configurations must be satisfied: the antenna has been installed by the manufacturer and no changes can be made.

FCC Radio frequency interference statement

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.

MUV Interactive Ltd. is not responsible for any radio or communication interference caused by using other than specified or recommended cables and battery or by unauthorized changes or modifications to this equipment. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

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.