

MoveaTV™ Android Evaluation Kit Quick Start Guide

1. PACKAGE CONTENT

- 1 Remote
- 1 USB Dongle
- 3 AAA Batteries
- 1 Nexus 10 Tablet with Movea Custom ROM Installed
- 1 USB to Micro USB Adaptor
- 1 HDMI to Mini HDMI Cable

Pairing Button

After pressing the pairing button on the dongle, press this button for one second

Motion Button

Double click activates in-air cursor control. Single click activates special actions when being pressed and released

Left and Right click

Special Button

Used for special key sequences



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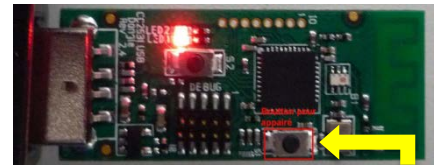
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2. USING THE REMOTE

2.1 GETTING STARTED

- 1- **Place 3 AAA batteries** in the back of the remote
- 2- **Insert USB dongle** into micro USB port (with supplied adaptor)
- 3- **Pair remote with dongle :**

Press the connect button on the remote, once the yellow LED is blinking, press the blue button on remote – Dongle and remote are paired once the yellow light stays on.



Press button to pair the remote

- 4- Default mode is **embedded in-air pointing** (see below). You can switch between **embedded in-air pointing** and **raw data** mode by pressing the **green button then key #3**.

2.2 ACTIVATE EMBEDDED IN-AIR POINTING MODE

When the embedded in-air pointing is activated, the motion processing happens only on the remote, which will be detected as a classic USB mouse by the host. Therefore, available features are limited to in-air pointing and basic gestures.

Double click on the motion button to turn on the sensors and thus activate embedded in-air pointing.

This mode is default one for the remote. The remote will go back to this mode any time batteries are replaced.

To use extended SmartMotion Server features available in Movea's Android Evaluation Kit, please switch to hosted raw data mode.

2.3 ACTIVATE HOSTED RAW DATA MODE

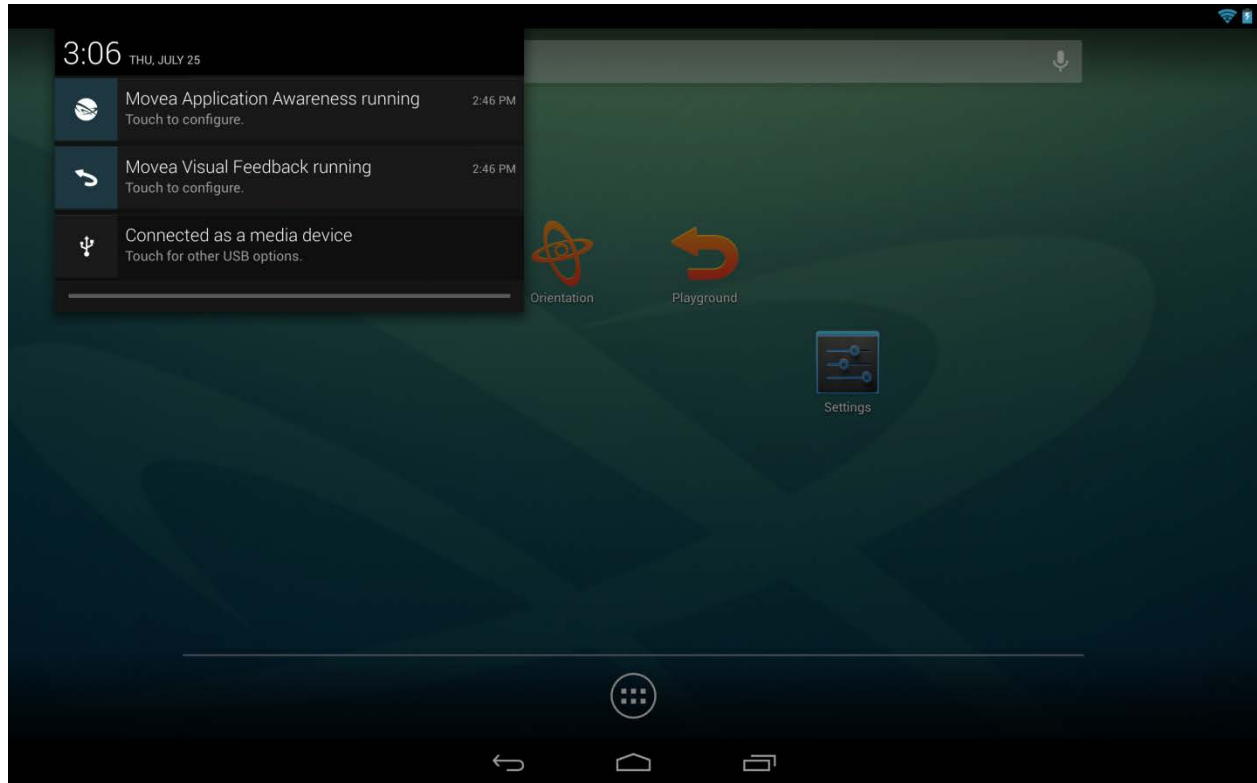
In raw data mode, the remote will only send the sensors data directly to the host through the radio channel. Movea's SmartMotion Server needs to be running on the host in order to benefit from all features.

As with the embedded in-air pointing, you should double click on the motion button to turn on the sensors and activate in air-pointing.

3. MOVEATV ANDROID EVALUATION KIT

3.1 FIRST CONTACT

Movea customized the Nexus 10 ROM to embed our SmartMotion Server as a daemon on the linux user space (not visible through the Android UI). Two system services automatically launch at startup:



- **Movea Application Awareness**

This service constantly monitors the current app running and set the corresponding configuration to the SmartMotion Server. When the service sets a new configuration, a popup (called a toast in the context of Android) will display *“Settings ‘APP’ configuration to SMS”*.

We predefined a list of application that requires a specific configuration. For all other app, we use a default configuration.

- **Movea Visual Feedback**

This service displays a visual recognition feedback when performing gestures.

3.2 AVAILABLE FEATURES

Point & Click

Move the remote in the air to move the cursor on the screen.

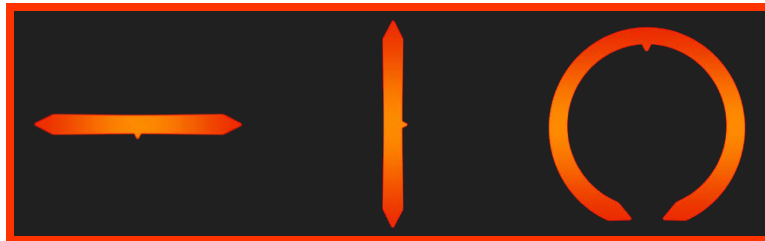
Gesture recognition and Dynamic Rotations

With our default gesture database, you have access to 10 gestures along with 3 dynamic rotations.

Gestures:



Rotations:



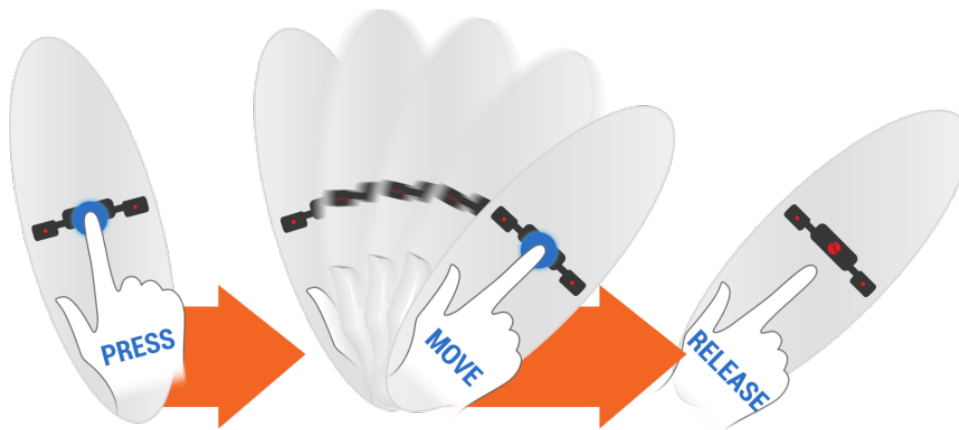
A *gesture* is a short wrist movement:

- Press and hold the Motion button
- Do the gesture
- Release the button

The release of the button triggers the motion processing. As soon as the gesture is recognized, the identified gesture should be displayed on the screen and the corresponding action should be executed.

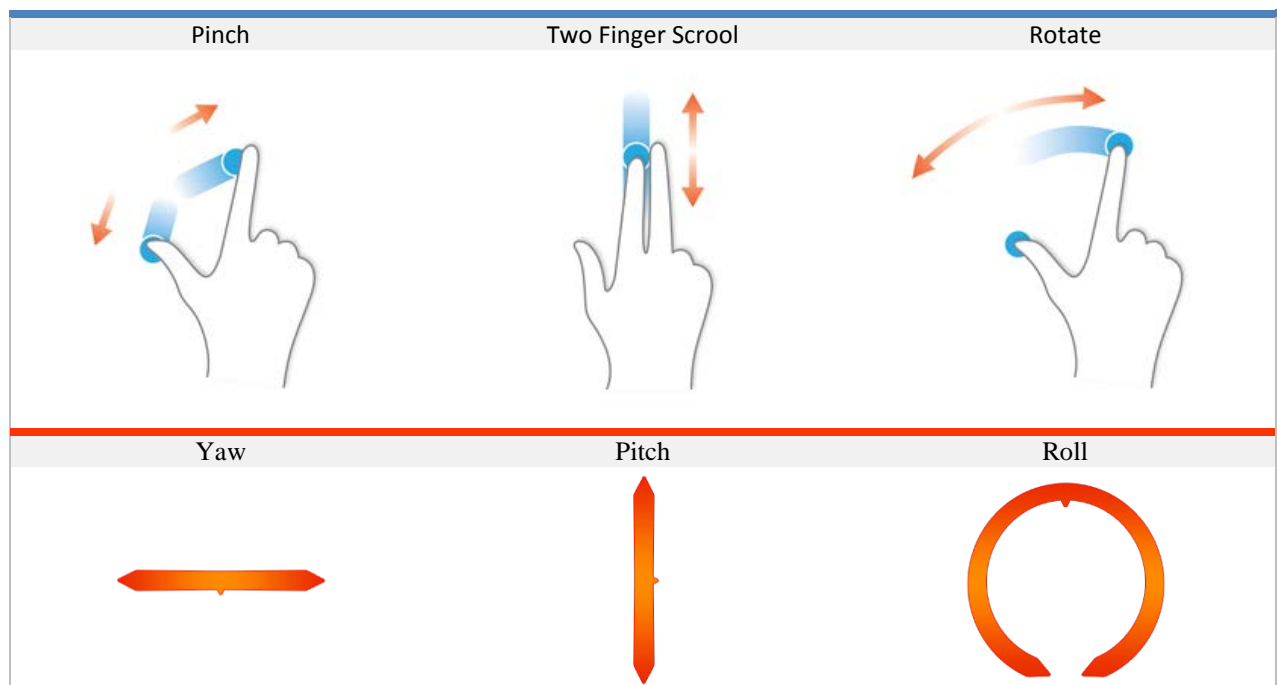
A *dynamic rotation* is a long movement:

- Press and hold the Motion button
- Slowly move along 1 of the 3 axis: yaw (left to right), pitch (top to bottom) or roll (rotation to the left and right)
- A gage notification appears on the screen. Some features, for example volume have special notifications provided by Android
- Release the button



Multitouch emulation

Some Android applications will use several fingers to interact with the device, for example pinch to zoom out, two fingers motion to rotate, etc. In order to be compatible with most of the app on the google Play, Movea offers “Multitouch emulation” with motion. This action is triggered with Dynamic rotations in some specific applications (Google Maps for example). It will allow you to zoom, rotate or tilt the map.



Multi-touch actions and the corresponding binding with our gestures

Joystick Emulation

Movea's SmartMotion Server enables you to use your remote like a wheel drive to control any game that's designed to work with a joystick, creating a more immersive gaming experience.

Hold your remote as a steering wheel: Right hand on the bottom, left hand on the top. Move it up, down, left and right to control the game, just like a joystick.

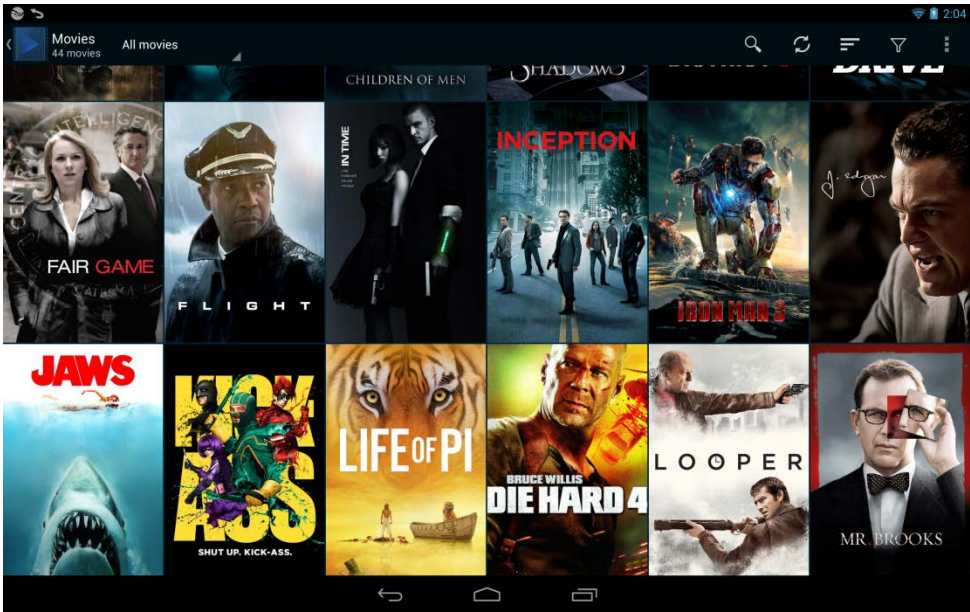
For example, use the following keys for the Riptide GP game app:







Android Sensors API implementation

Movea's SmartMotion Server integrates seamlessly with Android's LibSensors API, taking received sensor data from the remote and passing through the LibSensors API. This allows your remote to control that all native Android games which expect sensor data from the Tablet or Smartphone sensors.

3.3 DEFAULT CONFIGURATION

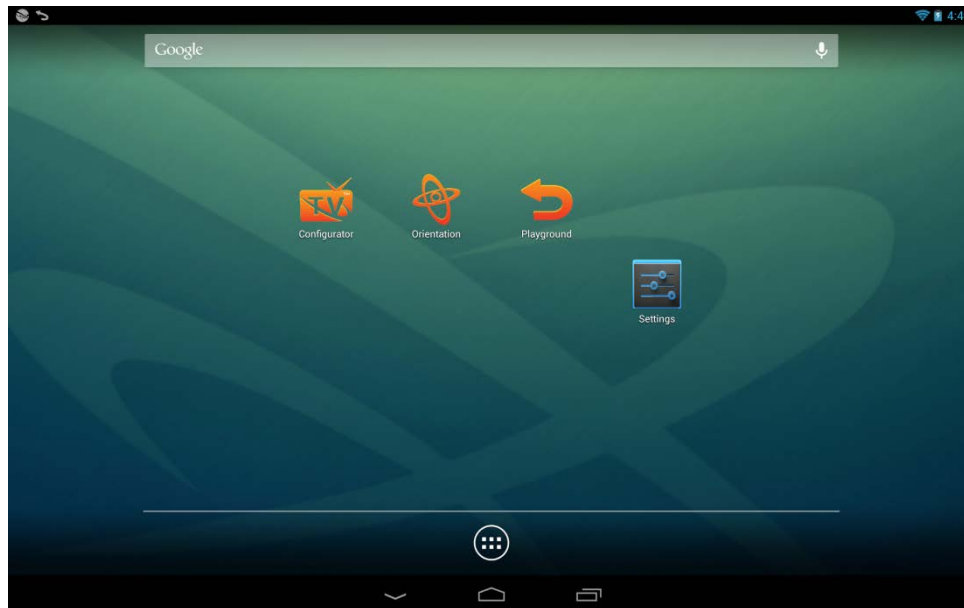



FEATURE	Status	Applications with this configuration			
POINTING	ON	 Play Music	 Mizuu	 Facebook	 Angry Birds RIO
JOYSTICK	OFF				
LIBSENSORS	ON				
GESTURE	ON				
ROTATIONS	ON				

GESTURE	Action
UP	Swipe down (move up)
DOWN	Swipe up (move down)
LEFT	Swipe right (move left)
RIGHT	Swipe left (move right)
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	NA
ROLL RIGHT	NA

ROTATIONS	Action
YAW	Multitouch: pinch (zoom)
PITCH	Vertical scroll
ROLL	Set volume level

3.4 HOMESCREEN (LAUNCHER)

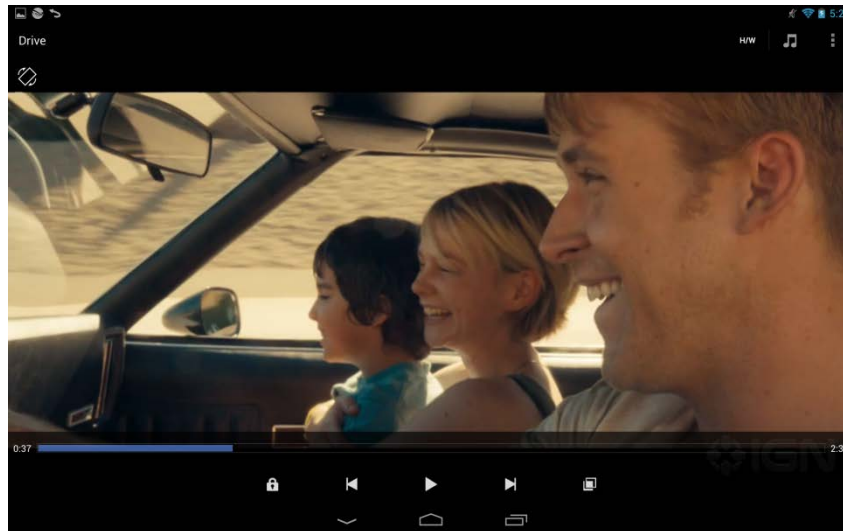





FEATURE	Status	Applications with this configuration
POINTING	ON	 Android Launcher
JOYSTICK	OFF	
LIBSENSORS	OFF	
GESTURE	ON	
ROTATIONS	ON	

GESTURE	Action
UP	NA
DOWN	NA
LEFT	Switch to previous desktop (on the left)
RIGHT	Switch to next desktop (on the right)
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	NA
ROLL RIGHT	NA

ROTATIONS	Action
YAW	Switch to next / previous desktop
PITCH	NA
ROLL	Set volume level

3.5 VIDEO PLAYER






FEATURE	Status	Applications with this configuration		
POINTING	ON	 MX Player	 Real Player	 Android Video Player
JOYSTICK	OFF			
LIBSENSORS	OFF			
GESTURE	ON			
ROTATIONS	ON			

GESTURE	Action
UP	NA
DOWN	NA
LEFT	Left key : backward
RIGHT	Right key : forward
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	NA
ROLL RIGHT	NA

ROTATIONS	Action
YAW	Repeated Left / Right key : Fast forward / backward
PITCH	NA
ROLL	Set volume level

3.6 WEB BROWSER

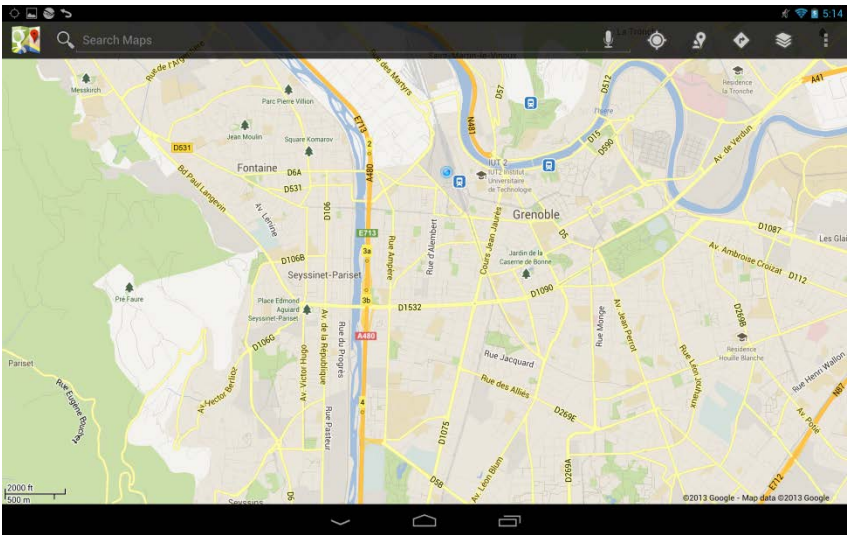


FEATURE	Status	Applications with this configuration		
POINTING	ON	 Browser	 Google Chrome	 Firefox
JOYSTICK	OFF			
LIBSENSORS	OFF			
GESTURE	ON			
ROTATIONS	ON			

GESTURE	Action
UP	Page UP
DOWN	Page DOWN
LEFT	Previous page
RIGHT	Next page
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	NA
ROLL RIGHT	NA

ROTATIONS	Action
YAW	Multitouch: pinch (zoom)
PITCH	Vertical scroll
ROLL	Set volume level

3.7 GOOGLE MAPS / EARTH



FEATURE	Status	Applications with this configuration		
POINTING	ON	 Google Maps	 Google Earth	
JOYSTICK	OFF			
LIBSENSORS	OFF			
GESTURE	ON			
ROTATIONS	ON			

GESTURE	Action
UP	Swipe down (move up)
DOWN	Swipe up (move down)
LEFT	Swipe right (move left)
RIGHT	Swipe left (move right)
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	NA
ROLL RIGHT	NA

ROTATIONS	Action
YAW	Multitouch: pinch (zoom)
PITCH	Multitouch: 2 fingers drag (tilt)
ROLL	Multitouch: Rotate (map rotation)

3.8 GAME WITH JOYSTICK



FEATURE	Status	Applications with this configuration		
POINTING	ON		 Riptide GP	
JOYSTICK	ON			
LIBSENSORS	OFF			
GESTURE	ON			
ROTATIONS	ON			






In this context, *Pointing* and *Joystick* features don't run at the same time. When you are in the application, use the **"Shake"** gesture to switch from one mode to another (default is pointing).

GESTURE	Action
UP	Swipe down (move up)
DOWN	Swipe up (move down)
LEFT	Swipe right (move left)
RIGHT	Swipe left (move right)
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	NA
ROLL RIGHT	NA

ROTATIONS	Action
YAW	Multitouch: pinch (zoom)
PITCH	Vertical scroll
ROLL	Set volume level

3.9 GAME WITH LIBSENSORS



FEATURE	Status	Applications with this configuration		
POINTING	ON	 Beach Buggy Blitz	 TurboFly	 Maze!
JOYSTICK	OFF			
LIBSENSORS	ON			
GESTURE	ON			
ROTATIONS	ON			



In this context, *Pointing* and *LibSensors* features don't run at the same time. When you are in the application, use the **"Shake"** gesture to switch from one mode to another (default is pointing).

GESTURE	Action
UP	Swipe down (move up)
DOWN	Swipe up (move down)
LEFT	Swipe right (move left)
RIGHT	Swipe left (move right)
CHECK	ENTER key
BACK	BACK (same as touch button at the bottom of the screen)
CLOSE	HOME (same as touch button at the bottom of the screen)
SHAKE	PLAY / PAUSE
ROLL LEFT	-
ROLL RIGHT	-

ROTATIONS	Action
YAW	Multitouch: pinch (zoom)
PITCH	Vertical scroll
ROLL	Set volume level

4. TROUBLESHOOT

- The remote doesn't send any signal – nothing happens when pressing the trigger and gesture button
 - 1- Check battery level or change batteries
 - 2- Pair again dongle and remote with step 2 described in set up
 - 3- Press volume buttons to see if it raises the volume, if yes, then press the sequence key to go into the desired mode. If not, recheck step 1 and 2.
- If it is the first time using the remote, it is possible to observe a drift of the cursor on screen. Place the remote on a table facing down and wait until the cursor stops moving.

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