Instructions Ballyland™ Rotor - Sonokids 2017

## Quick Start

Turn on the volume. Both the video and the game app require audio. The use of headphones is not required but will increase the quality of the sound experience.

Double tap with one finger to start the tutorial video. Three finger flick left to start the game.  
The short, one minute tutorial video demonstrates a number of alternative ways to do the Rotor gesture. It is accessible for users of VoiceOver.

**Note: If you have Zoom enabled in the Accessibility Settings of your iDevice, please turn this off before starting the app as this will interfere with the three finger flick left.**

In the app, the Rotor doesn’t become active until you hear out the instruction “You can start when I say now, NOW”.

**Touch Gestures used in this app:**

* Rotor
* Single finger flick up/down
* Three finger flick left

## Cheat

After assisting one student in playing the app a few times, or if you support more students, you can opt to use a “cheat” gesture to skip through certain parts of the app, including the songs. The gesture is a triple two finger tap.

## Using the Ballyland Rotor app as an educator who generally relies on VoiceOver

The landing page of the app is VoiceOver accessible. It provides instructions on when to turn VoiceOver off in order to avoid mingling with the app's built-in speech. You can turn on VoiceOver again before you quit the app. The on-screen short instructions can be downloaded from the website in an accessible format.

## About the app

Ballyland Rotor is an iPad game that is designed to enable children with vision impairment to learn and practice the concept and touch gestures for the Rotor in VoiceOver, Apple’s built-in screen reader for iOS Devices. The Rotor is a relatively advanced concept and gesture, and it is recommended to first play Ballyland Magic, which has demonstrated great value in supporting the development of blind children’s foundation touch gesture skills and general conceptual understanding of VoiceOver.  
  
In iOS VoiceOver, the Rotor is used to select settings that adjust the way VoiceOver works, such as how fast it speaks. In Ballyland Rotor, the Rotor is used to change the storylines in the amazing audio story of Ballicopter’s flight adventure through Ballyland. The playful setting of Ballyland Rotor not only supports children’s understanding of the concept of selecting options and settings by way of the Rotor: it also offers them a safe platform to explore and practice the different ways the Rotor gesture can be performed. The app mimics exactly how VoiceOver would work, but uses self-voicing to improve the learning experience. The fact that a wrong gesture gives no response (instead of an unexpected and unintended outcome), will make the child feel more confident. The app enables children to explore and practice the different ways the Rotor gesture can be performed, to discover and consolidate the one that works best for them.

In each part of Ballyland Rotor the child needs to listen and follow instructions to set the Rotor to the correct Option and move the story on. If the Rotor is turned to another Option than instructed in the app, you won’t be able to flick up or down through any settings.

After selecting a setting, you can do a three finger flick left to move to the next page (and send Ballicopter on his way). Or, if you regret the selection, you can simply resume flicking up and down to make a new selection.

Each choice the child makes by setting the Rotor will impact on the rest of the story. The variables result in **24 different endings of the story**. The selection of an instrument determines the intro of the end song. The Ballylander who is selected for a visit from Ballicopter will sing a solo in the end song.

After the final song, a three finger flick left takes you back to page 3 to start the game again. Encourage the child to make different choices, so that the story will develop differently. Playing the game multiple times will support the child’s development and understanding of the Rotor gesture.  
When you close down the app completely, it will open again on the Instructions/tutorial video.

## Learning tool: 3D printed model of Ballicopter

From the website, download the free files to 3D print this great learning tool that enables the child to explore the spinning propeller and practice the different ways to do the Rotor gesture, before performing it on the screen. The model also allows the child to get tactually familiar with Ballicopter, the main character in the app.

## VoiceOver Rotor

The Rotor will show up when you put two fingers on the screen and start turning them. The Rotor image will always show up in the center of the screen, no matter where you place or move your fingers.  
To turn the Rotor, you need to use two fingers, held slightly apart.

There are many different ways to perform the Rotor gesture, and it is best to explore and find what works best for the child. Send us your innovative ways to do this, and we will share them. Videos would be great!

* Turn two fingers of one hand (like turning a virtual dial)
* Keep your thumb static on the screen, and make a flick gesture with another finger of the same hand
* Use one finger of each hand, one static on the screen, the other making a dialing movement around it
* With one finger of each hand make a dial movement around a virtual center, rotating in the same direction.
* If you hold an iPhone in one hand, put two fingers of the other hand on the screen and slightly turn them, while turning the iPhone itself in the opposite direction of the rotating fingers.

As you turn the Rotor, the first Rotor option will be spoken. Keep rotating your fingers to hear more options. It is a loop and you can turn clockwise or counter clockwise.   
Lift your fingers to choose an option.   
Then flick one finger up or down to choose a setting. Lift your finger up to select this setting. An alert sound indicates top or bottom of the list of settings.  
  
For full information on how the Rotor can be used to change the way VoiceOver navigates and reads text, please visit the Apple Accessibility website: “About the VoiceOver rotor on iPhone, iPad, and iPod Touch” <https://support.apple.com/en-us/HT204783>

## Learning outcomes

* Conceptual and touch gesture skills for use of VoiceOver Rotor on an iOs mobile touch device.
* Fine motor skills development. The Rotor gesture can be difficult to perform, in particular for children with fine motor skill challenges. Ballyland Rotor provides a safe and engaging interactive learning environment, in which different ways to perform the gesture can be explored and practiced without unwanted and unexpected results.
* Conceptual understanding. The Rotor is a more advanced concept of VoiceOver and requires a sequence of gestures and selections. In the app, the concept of selecting Options and Settings is introduced gradually and with audio support, through Ballicopter’s story.
* Listening skills. These are essential for anyone to be able to use VoiceOver. The app provides clear and short instructions to enable a child to play and learn quite independently, as well as an engaging and adaptive storyline.
* Memory skills. Instructions are provided step-by-step in order to avoid memory overload. The app helps children to memorise the required gesture sequence to change Rotor Settings, thus preparing them for effective, advanced use of VoiceOver.
* Independence and empowerment.