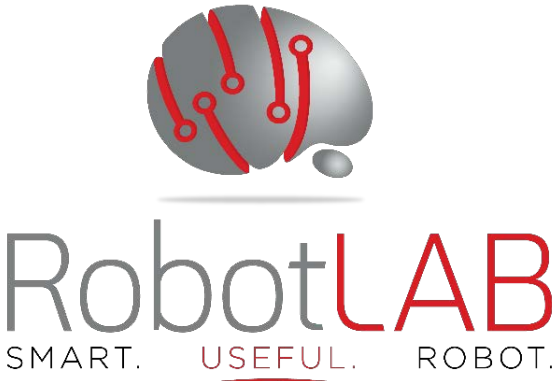


GETTING STARTED WITH VIRTUAL REALITY



Teacher's Guide Expeditions

Materials	
1 router	
10, 20, or 30 viewers and controllers, 1 per student	 
1, 2, or 3 10-USB ports	 
10, 20, or 30 USBC Charging Cables	
tablet for teacher's use	
Transport cases	
360 VR Camera	

How to start using the Lenovo VR kit

1) Open Google Expeditions on the tablet. Download the expedition and you want to share with the students. (See page 4 of this guide.) Open that expedition in Guide mode to start a search of explorers (students)

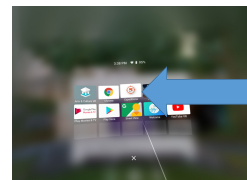
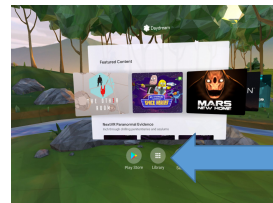
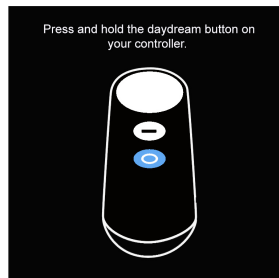
2) Have students click and hold the power button to turn VR headset on. (Place on head to view power up)



3) After the headset boots up, press and hold the daydream button on your controller to activate pointer. If it doesn't pair, then press both volume buttons on the headset at the same time to reset the controller.

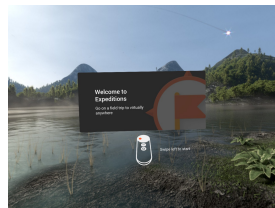
4) On the home page, select Library

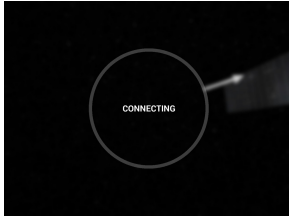
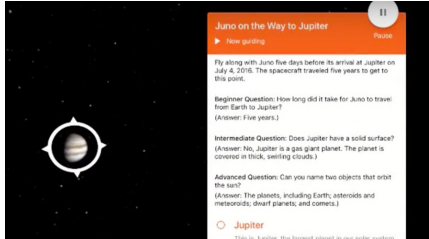
5) After the headset boots up, press and hold the daydream button on your controller to activate pointer.



6) Swipe left on the button to enter Expeditions.

7) The Expedition selected on the tablet should show as Live in the viewer. Select this live expedition to join the follow along with the teacher.



<p>8) The Viewer should show "Connecting"</p>	
<p>9) The teacher tablet can now guide the students through the expedition with visual commentary for each area of the expedition. Most expeditions have 4 or more images to explore.</p>	

Set up your WIFI Networks

In the kit, Robot Lab has provided you with all necessary equipment.

- 1) Turn on the router. This will create a "RobotLABWifi" Network.
- 2) Turn on the teacher tablet. Start Expeditions app.
- 3) Turn on student devices. Start Expeditions app.

To install the app or download an individual expedition, you need an Internet connection, but **you only need a peer-to-peer Wi-Fi network to lead an expedition.** This eliminates students from downloading their own content or accessing the web on their device. If your tablet is asking for a password (robotlabvr3@gmail.com) you don't need it. This account was used only to load the applications: Cardboard (goggles only) and Expeditions (goggles and tablet).

In order to have future access to the Expeditions App please create your own Gmail account to access the Google PlayStore

IF THE SETUP ABOVE IS NOT WORKING, PROVIDE THIS TO YOUR IT DEPARTMENT.

The router we provide with your kit is set up with the RobotLABWifi peer to peer network. This should eliminate the need to change any settings to accommodate the VR devices. If you still need to use your own set up, use DNS UDP 5353 port so they are all on the same network

If your school **doesn't allow** a 3rd party router to be plugged into the network

1. connect the teacher tablet to a network with internet access
2. download the Expedition you want to run
3. go back onto the Robot Lab network to lead the session.

If for some reason the tablet or student phone lost a connection to the provided router, please connect to RobotLABWifi network with the password RobotsRCool.

Start using Expeditions

To lead Explorers on a trip, you first need to search in your Expeditions app on the phone.

Find an expedition

You have a few ways to find expeditions:

- **Scroll**—On the Expeditions homepage, scroll vertically to browse featured expeditions.
- **Search**—On the Expeditions homepage, tap Search and enter a subject or select one of the categories, such as Landscapes or Science.
- **Spreadsheet**—In a web browser, view the complete [list of available expeditions](#), then return to the Expeditions app and search for that title.

To learn about new expeditions, we announce new content each week in [the Google+ Expeditions Community](#) and share updates via Tuesday Tips on Twitter via [@GoogleForEdu](#).

Download and expedition

You need to connect your tablet to the Internet to download expeditions.

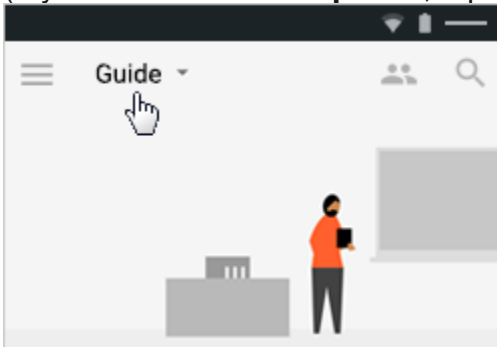
1. On your tablet, tap **Expeditions**, If you can't find the Expeditions icon, click on the



Apps icon and swipe through until you find it.

2. Click Menu . Next to **Downloaded only**, confirm the setting is Off .

3. Confirm that your role is set to **Guide**.
(If your role is set to **Explorer**, tap **Explorer** > **Lead**.)



4. Scroll through the list of expeditions or tap Search and enter a subject.
5. Tap the expedition to download it.
After you download an expedition, in the bottom-right corner, you see a Checkmark ✓ to indicate that the expedition downloaded and can be used offline.



Remove an expedition

You have 3 ways to remove an expedition from the Expeditions homepage:

- Tap More > **Remove download** > **Remove**.
- Tap Checkmark ✓ > **Remove**.

Maintain expedition content

To keep Expeditions content accurate and current, we send out regular app updates. For example, we announce new content each week in the [Google+ Expeditions Community](#) and share updates via Tuesday Tips on Twitter via [@GoogleForEdu](#). Most phones and tablets are set to automatically download the updates.

Caution: If you don't connect your guide device to the Internet at least every 60 days, your downloaded expeditions are removed from your device.

To prevent your expeditions from disappearing, we recommend that you:

- Connect your guide device to the Internet every 60 days and pull down the expeditions list to refresh content.

Verify that your device has the correct date and time so content isn't prematurely removed.

Go on an Expedition

When you open the Expeditions app, you pick a role:

- **Guide**—Usually a teacher who leads an expedition on a tablet. In this role, you choose the expedition, focus on scenes, and highlight points of interest.
- **Explorer**—Usually a student who follows an expedition on a phone. In this role, you look at what the Guide highlights as a point of interest or scene.

Only a Guide can lead an expedition. Explorers can't join an expedition without a Guide.

Become a Guide or Lead an Expedition


1. On your tablet, tap Expeditions
2. Tap **Lead** to be a Guide.




Lead an expedition

Open an expedition

1. Scroll to find the expedition you want to lead, or use the search to find expeditions based on keyword/topic.
2. Tap on the expedition you want to download it to your tablet.

- When the expedition is finished downloading, tap anywhere on the expedition, then tap Play  .




- Instruct students to join the expedition by placing the Viewer over their eyes. At the top of your screen, next to People , you can see how many students are connected. If the total number is smaller than the number you expect it means that one or more of them are either not connected or played with the setting and became a guide (lead).



Focus on a scene

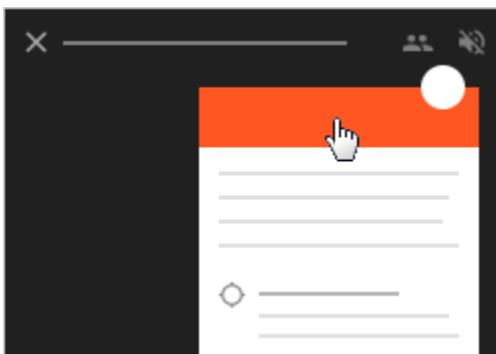
Expeditions are comprised of several segments, called *scenes*. Scenes contain integrated descriptions, talking points, and questions.

Play a scene


- After opening an expedition, scroll horizontally to pick a scene and tap Play  . **Note:** You can scroll through the names of other scenes without changing the current one. However, you can't review the contents of another scene without starting it. Selecting a new scene changes the scene for explorers, too.




2. Swipe up to review notes, questions, or other information.



Pause a scene to get students' attention

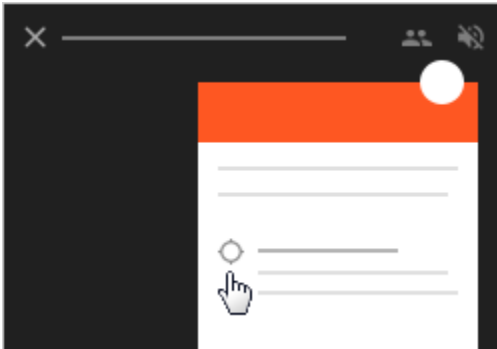
Anytime you pause a scene to ask a question or discuss it, Explorers' screens freeze and display the message "Paused by Teacher." The scene returns when you tap Play  again.

1. Tap Pause .
2. Tap and hold a spot in a scene. Explorers will see an arrow directing them to that spot.




Highlight points of interest

Scenes have suggested *points of interest*. Points of interest are objects in a scene that you may want to discuss with Explorers. For example, in an expedition of outer space, you can point your students to the sun, Jupiter, or a spacecraft.




Select a point of interest

You can find points of interest in the scene description. Tap Point of interest  and Explorers will see arrows to guide them to the item.



Create your own point of interest

To create your own point of interest, touch and hold on the area you want Explorers to view. A point of interest appears and Explorers are directed to it with arrows on their screens.

Remove your point of interest

To remove a point of interest you created, touch and hold the Point of interest . The point of interest disappears and Explorers no longer see arrows on their screens.

End an expedition

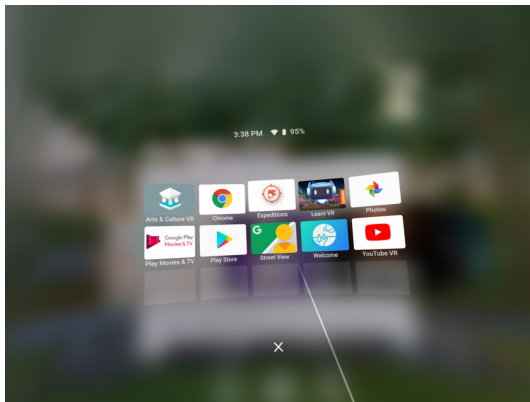
To end an expedition, at the top of the screen, tap Close  next to the expedition title  **Leave**.



How Student Devices to Follow an expedition

Students Lenovo and teacher tablet devices must be on the same Wi-Fi network. We recommend the "RobotLABWifi" network already set up on the provided router.

2. Open Expeditions App (See instructions on page 2)



3. Students select "Live" for the Expedition you have downloaded and want them to join.



Note: If you don't see **Follow**, an expedition might not be started. Make sure you started an expedition on your tablet. Also check that the student phone and teacher tablet **are connected to the same wi-Fi network**.

Tips for Successful Use in the Classroom

- If a student wears glasses have them wear their glasses like normal, and just place the view finder over their glasses.
- If a student feels dizzy while using the view finder, have them take the view finder off and sit down for a while. If a student is feeling dizzy
 - check that their viewer head band is adjusted properly using the knob on the back.
 - Clean the lenses to remove any smudges.
- Remind students that walking will have no zooming effect so they should stay in their area. (seated is best for safety) Make sure students have enough space to freely rotate their bodies in order to explore all parts of the scene.
- Make sure Headset and tablet are completely charged before each lesson. The Tablet should last for the day but the headset should be turned off when not in use to allow more battery time for the day and multiple classes. (Lasts 2-3 hours on a full charge) Charge between classes as needed.
- Have the phones in the view finder and have all phones following your lead before the students arrive.
- If your school has purchased more than one kit, make sure to coordinate with the other teacher(s) on the times they will be leading. If you lead at the same time, and you are both connected to the school network students in both classes will see 2 leads. Make sure to check that all of your students are following your lead and not another teacher's lead.
- If you need to connect another device to the provided router, the wifi password is RobotsRCool.

Additional Resources

- Google Cardboard (<https://vr.google.com/cardboard/>)

Experience virtual reality in a simple, fun and affordable way, get a taste of what's possible in VR with the brand-new Arctic Journey demo: fly alongside Arctic terns, plant a field of flowers, relax under a sky full of stars and more. It's a VR experience starting with a simple viewer anyone can build or buy.

- Cardboard Camera (<https://itunes.apple.com/us/app/cardboard-camera/id1095487294?mt=8>)

Capture and share moments with virtual reality (VR) photos. VR photos let you experience scenery and sound in every direction and in 3D, making near things look near, and far things look far. From vacation travels to family get-togethers, capture the moment with Cardboard Camera and relive it in VR.

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