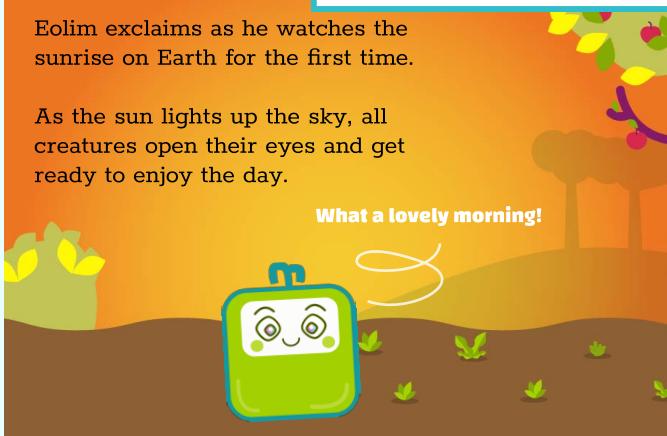


EOLIM'S GOT TALENT

Eolim exclaims as he watches the sunrise on Earth for the first time.

As the sun lights up the sky, all creatures open their eyes and get ready to enjoy the day.

What a lovely morning!



The silence of the night has been gradually replaced by lively morning noises. Birds are chirping... The neighbor's dog is barking... A school bus is beeping...



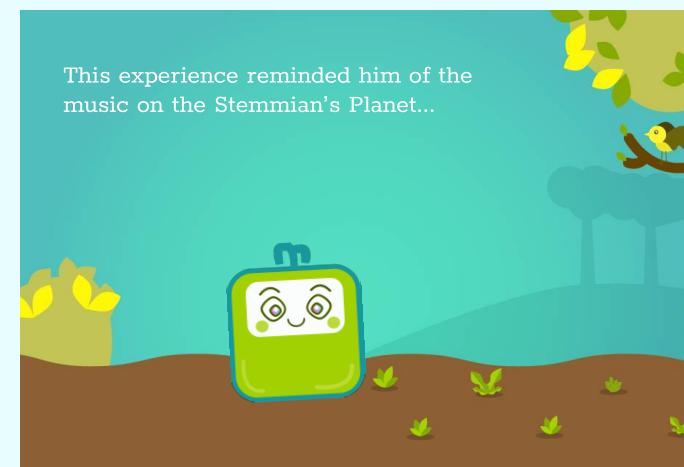
chip! Chip!



And a happy song is playing on the radio! Eolim is amazed with all the sounds and noises of Earth, especially the music. He spent all day listening to the radio and enjoying the tunes.

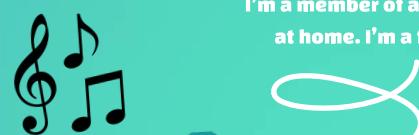


This experience reminded him of the music on the Stemmian's Planet...



Eolim would like to teach you the musical tunes and rhythms from the Stemmian's Planet.

I'm a member of a music band, back at home. I'm a famous singer!



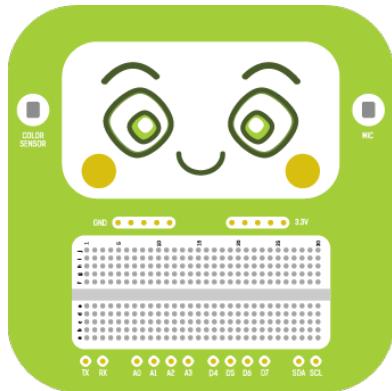
Episode 2

Discovery: Build - Test - Learn

THE MISSION

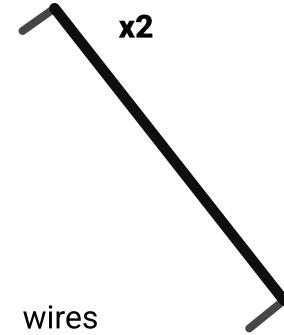
Eolim has a very good sense of hearing, he can pick up sounds really easily. Noises and sounds on Earth are very different from the ones on the Stemmian's Planet. Let's teach Eolim the sounds and noises on Earth and see how he will react.

WHAT DO YOU NEED

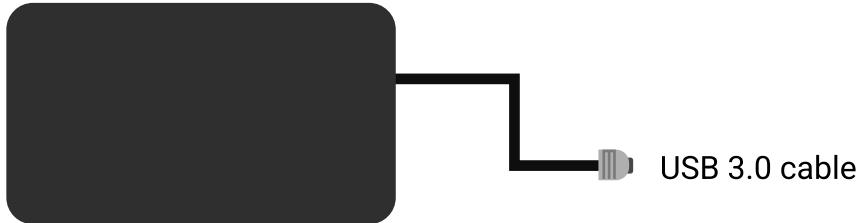


Eolim shield

piezo buzzer



wires



Power bank

Step-by-Step

Step 1 - Start the Discovery

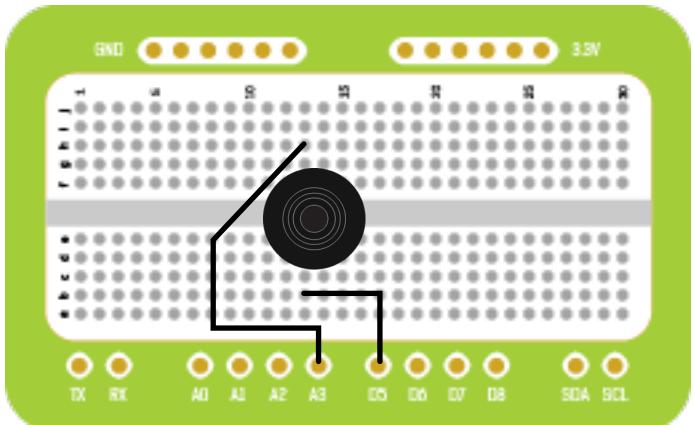
Ask your teacher or your parents to upload the program named “Sounds (Discovery)” on your computer or tablet.



Step 2 - Connect the Buzzer

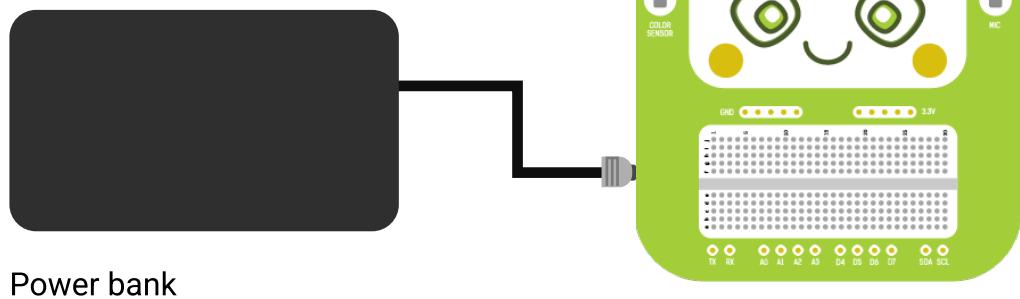
Do you remember how to do it? Try to place it without looking!

Hold the Buzzer and carefully insert the two legs as it follows: the long leg goes into the D4 hole, and the short leg goes into the A3 hole. Push it in, until you cannot see the legs anymore and you just see the black plastic head of the Buzzer laying down on the surface.



STEP 3 - Connect the Power bank

Plug it in through the Power Cable.



Test

Test

Position Eolim either standing upright or laying down on his back on the table.

Make different noises close by Eolim: clap your hands, snap your fingers, tap on the table, and shout out loud... Be creative!

What do you see? 

Hint: Look at Eolim's eyes, you should see them flickering

Play some music close by Eolim: you can play music from the radio, from your computer or from a phone. Even better: you can sing a song for him !

What do you see? 

Hint: Look at his eyes, you should see them flickering

Focus 1

The Microphone

Learn

Eolim has an electronic device that enables him to hear and recognize sounds, and is called the Microphone or a “Mic” . It is located next to his right eye.

Eolim’s Mic is a smart microphone that can sense the “loudness” of sounds, so it can differentiate between loud and quiet noises and sounds.

When you make different noises near the microphone, it will read the level of loudness and Eolim will give you a feedback:

When you make noises like clapping your hands, snapping your fingers, or talking loud, you should see that Eolim’s eyes flicker. In fact, the brightness of the LEDs changes in response to the sound.

The LEDs will turn ON when the loudness level is high or the source is very close to the microphone. Their brightness increase or decrease as the loudness level goes higher or lower.

The LEDs won’t turn ON at all if the loudness level is very low or the source is far away from the microphone.

The flickering LEDs will be very noticeable and will continue flickering as you play songs or music from the radio, TV, or computer: it seems like the lights are dancing with the music!

Eolim fell in love with the sounds and music on Earth, and his eyes glow with happiness as the level of loudness changes.

Did you know that on Earth we can find smart microphones like that of Eolim in many modern devices and applications?

Smart microphones can be found in Security Systems to sense any noise, like the sound of glass breaking, which might indicate a robbery. More advanced smart microphones can be found in Voice Assistants like Alexa, Siri, or Google Assistant, which can sense your voice and, thanks to advanced technology, they can understand your instructions to control things around the house, like turning the music ON and OFF, or open and close a door.

Episode 3

Clap along Game

THE MISSION

Eolim wants to sing some tunes from the Stemmian's Planet and he challenges you to clap along!

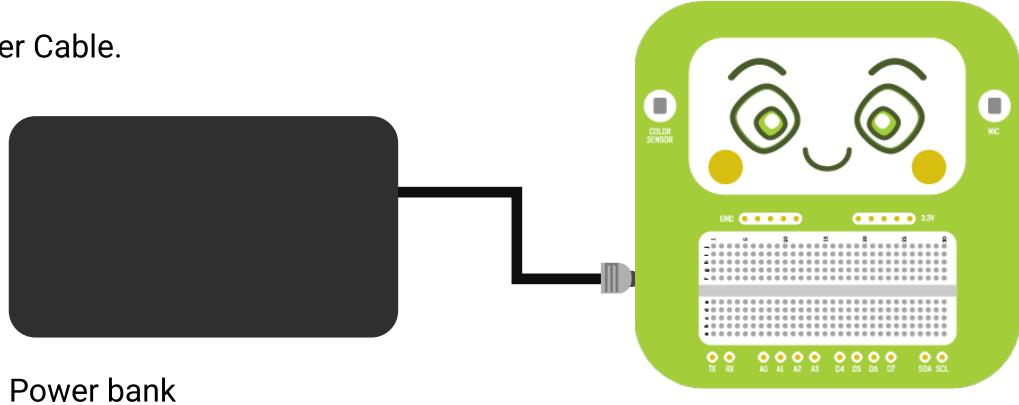
STEP 1

Ask your teacher or your parents to upload the program named "Sound (Quest)" on your computer or tablet. Connect the Power Bank: Plug it in through the Power Cable.



STEP 2 - Connect the Power bank

Plug it in through the Power Cable.



STEP 3 - Eolim will play a certain number of music notes and you need to listen carefully

Gioca!

Count

You need to count the number of musical notes he plays and memorize how many they are. You may keep track of the count on your fingers or using pen and paper.

Clap

After Eolim finishes playing his song he will give you a couple of seconds to clap after him. You should clap your hands as many times as the number of music notes that he just played for you. For example, if you hear three notes, you should clap your hands three times in a row. Eolim will be listening to you while you clap!

Repeat

For every new song that Eolim plays you need to listen, count and then clap!



**Count the notes, clap
and repeat!**



Episode 4

Missione compiuta

Great job! Eolim has now a better understanding of the various objects on Earth and their unique colors.

Woohoo! Nice clapping along..

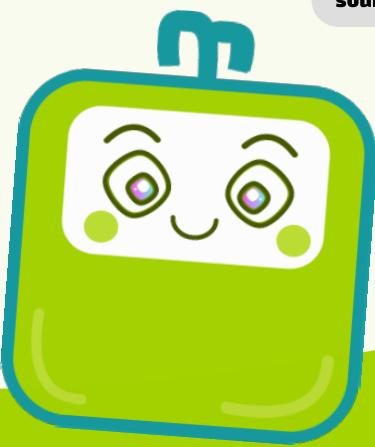
I enjoyed playing music with you, let's start our music band here on Earth!

Focus 2

Il suono

When you clap your hands together, the air molecules across the room vibrate and the sound propagates until it reaches the ear of a friend nearby. The eardrum inside a friend's ear vibrates in response to the air vibration and the brain translates this vibration into a signal that your friend can understand and recognize as a hand clap.

I guess the idea of playing in space with our music band is not an option! Air seems very important for the transmission of sounds and music...



MISSION FOCUS - Try to tap

Instead of playing the "Clap along game", try "tapping" on Eolim's body (either on the face or on the back) with your fingers. For example, if Eolim plays four musical notes, tap four times with your fingers.