AV1

Onboarding Guide

**Your guide for introducing AV1 to the school,
and technical set up.**

No Isolation

AV1 in the classroom

Estera Kluczenko

AV1 being streamed from home

Estera Kluczenko

The AV1 Onboarding Guide

This onboarding guide will support you in the process awhat AV1 is, to setting it up on your school's IT systems, to completing your first lesson with AV1.

Technical set up of AV1

1 - Technical set up of AV1

2 - Preparing your school for AV1

Preparing your school for AV1

3 - The first lesson with AV1

The first lesson with AV1

Technical Set Up

On this page is a step-by-step guide to support you in setting up your AV1 at school. Aimed at teachers and IT staff, it takes you through the necessary steps to get AV1 ready for use by your student. We recommend first downloading the AV1 Assistant app before testing your AV1.

Step 1. AV1 Assistant app

Monitor and manage AV1s at your school

1.1. Turn on AV1 by using the button on the back next to the charging port. Light strips on AV1 will flash, meaning it is on and searching for the mobile network. Once it has signal, the lights will go solid.

1.2. Download the **AV1 Assistant app** onto your Smartphone or tablet, available from the App store or Playstore, and create a profile. We will use the contact information in case of future troubleshooting.
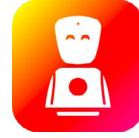
1.3. Add an AV1 by entering the keyword provided in the box or via email. Tap on the banner to add a nickname for the AV1, e.g. the name of the student. No Isolation cannot see this information.

In the AV1 Assistant App you can see the 4G coverage and the battery life for the AV1. At this stage, we recommend connecting AV1 to the school WiFi network (Settings > add WiFi).

> **TOP TIP**
>
> AV1 needs to be connected to a mobile network to receive the school's WiFi details. If 4G coverage is poor, you can add WiFi information using Bluetooth instead.

If your network security doesn't allow AV1 to join the WiFi initially, please see the WiFi Guide on Page 5 for more information on ports and whitelisting.

Step 2. AV1 app

Test AV1 before handing over to the student

2.1. Download the **AV1 app** onto your phone or tablet, available from the App store or Playstore. This doesn't have to be the device the student will use as they can be connected to the AV1 at a later stage. Make sure AV1 is turned on.

2.2. In the app, enter the keyword either provided in the box or via email. You'll need to make a memorable pincode for testing, and you'll need to accept the T&Cs.

What is a keyword? It is a single-use code that syncs your device to AV1 via end-to-end encryption. The keyword expires once used in the AV1 app.

2.3. If you haven't yet added WiFi details in the AV1 Assistant app, you can do so now (Settings > WiFi networks).

2.4. Now you can test AV1. Find the mute button in the app (bottom left) so that if you are in the same room as the AV1, you don't get feedback noises! We recommend testing AV1 in different areas of the school and trying out all the features.

2.5. Now it's all up and running, you can hand AV1 over to the class teacher. As you have used the single-use keyword during testing, you will need to request a new one to give to the student who will use AV1. New keywords can be generated by verifying your account in the AV1 Assistant app (Settings > Generate Keyword > Verify Me). Alternatively, keywords can be requested via phone, livechat or by emailing support@noisolation.com (quoting the AV1 serial number).

WiFi Guide

WiFi networks can be registered in both the AV1 Assistant App or the AV1 App. In the settings section, choose "Add WiFi" select "Add another" and choose from the available networks. Enter the password if required. Networks can also be added manually if it is not showing as an available network. This can be useful if the network you want to add is not in range of the AV1 at the time. Make sure that UPPER and lower case letters, numbers and symbols are entered correctly.

If the mobile coverage is very poor and therefore the AV1 will not be able to receive the WiFi details, they can be added via bluetooth using the Assistant App.

QUESTIONS & ANSWERS

Which wireless standards does AV1 support?

AV1 supports most wireless routers that are in use today. It specifically supports 802.11 ac/a/b/g/n (2.4GHz + 5GHz, 2×2 MU-MIMO).

Which network security mechanisms does AV1 support?

AV1 supports open networks, and networks protected by WEP / WPA / WPA2 Personal / Enterprise. Specifically, it supports WPA Enterprise 802.1x (PEAP). Networks that require HTTP proxy or firewalls that block all ports out of the network are not supported.

What if the network uses NAT/firewall?

NAT should not affect the operation of AV1 at all. The way AV1 works is that all communication, except control signalling, goes directly peer-to-peer between the robot and the user application. If both parties are behind NAT/firewalls, the software will attempt to traverse the firewall using technologies such as STUN/UPnP. If that fails, the encrypted media is relayed through one of our (TURN) servers.

What do we do if our network is not supported?

Usually, the simplest solution is to acquire a wireless router for use with AV1 (e.g. in the classroom). Often, a stock wireless router can be plugged into the wall in the classroom and be configured securely with WPA2 Personal and a password that is only used by the AV1 user.

What is the minimum required access to the internet?

The minimum required access to the internet is:

TCP port 443:
gateway.noisolation.com
av-grpc.noisolation.com
upgradesrv.noisolation.com
upgradesrv1.noisolation.com

UDP port 443:
*.kinesisvideo.eu-central-1.amazonaws.com

And if possible:
Any high port number out to the internet using UDP, as that will often allow the WebRTC protocol use of peer-to-peer communication, which gives better performance, and less delay.

What if our network uses MAC address filtering?

Each AV1 will have their own unique MAC address which we can supply to you.
You can then whitelist this address to allow the AV1 onto the WiFi network.

If you have further questions about anything, feel free to contact us by chat at noisolation.com or visit support.noisolation.com.

What is AV1?

The AV1 is placed in the classroom and the child is at home on their device. AV1 has a built-in camera and microphone to transmit the lesson back to the child.

From home, the child can control their AV1, and interact with the class.

1. They can move the AV1, by turning it 360 degrees or looking up and down 70 degrees.

2. They can talk and their voice is projected into the classroom, they can also mute themselves so they're not heard by the class, and they can even use the whisper mode to talk to classmates

3. They can let the teacher know if they have a question by pressing the hand icon. This makes the AV1's head flash.

4. They can turn their AV1's head blue if they are not feeling well and want to take part less actively

5. They can even change the eye expressions of the AV1, expressing happy, sad, or confused!

This enables the child to take part in the lesson as though they were physically present.

The great thing about AV1 is that it can also be used outside the classroom too. It has an integrated 4G sim card, meaning it can be taken out into the playground, on school trips, or even home for birthday parties!

Privacy and Safeguarding

We know that privacy, both for you as teachers and for your students, is incredibly important. AV1 is an innovative product and as such the idea of bringing a device with a camera into the classroom can seem daunting. That is why we have designed the device with privacy and safeguarding at the front of our mind throughout, and built multiple layers of security.

It cannot record
AV1 transmits a live stream from the avatar to the AV1 users' tablet. No data is recorded, and the live stream is end-to-end encrypted, meaning it is impossible for any external party, including us, to access the stream.

Screenshots are forbidden
Recording or screenshotting is not allowed. If attempted, depending on the a type, the stream will automatically terminate or No Isolation will receive a notification, and reserve the right deactivate the AV1.

Clearly visible when active
You'll know when AV1 is active as its head will lift and its eyes will light up. AV1 transmits one-way video so, whilst the user can see what AV1 sees, you can't see them (this is a result of testing with sick children - they want to be involved but not necessarily seen by their peers).

A one-user device
Only one AV1 user will be able to connect to a single AV1. Their app is accessible via a secret 4-digit pin code and they are required to accept No Isolation's terms and conditions which state that only one AV1 user will be using the app.
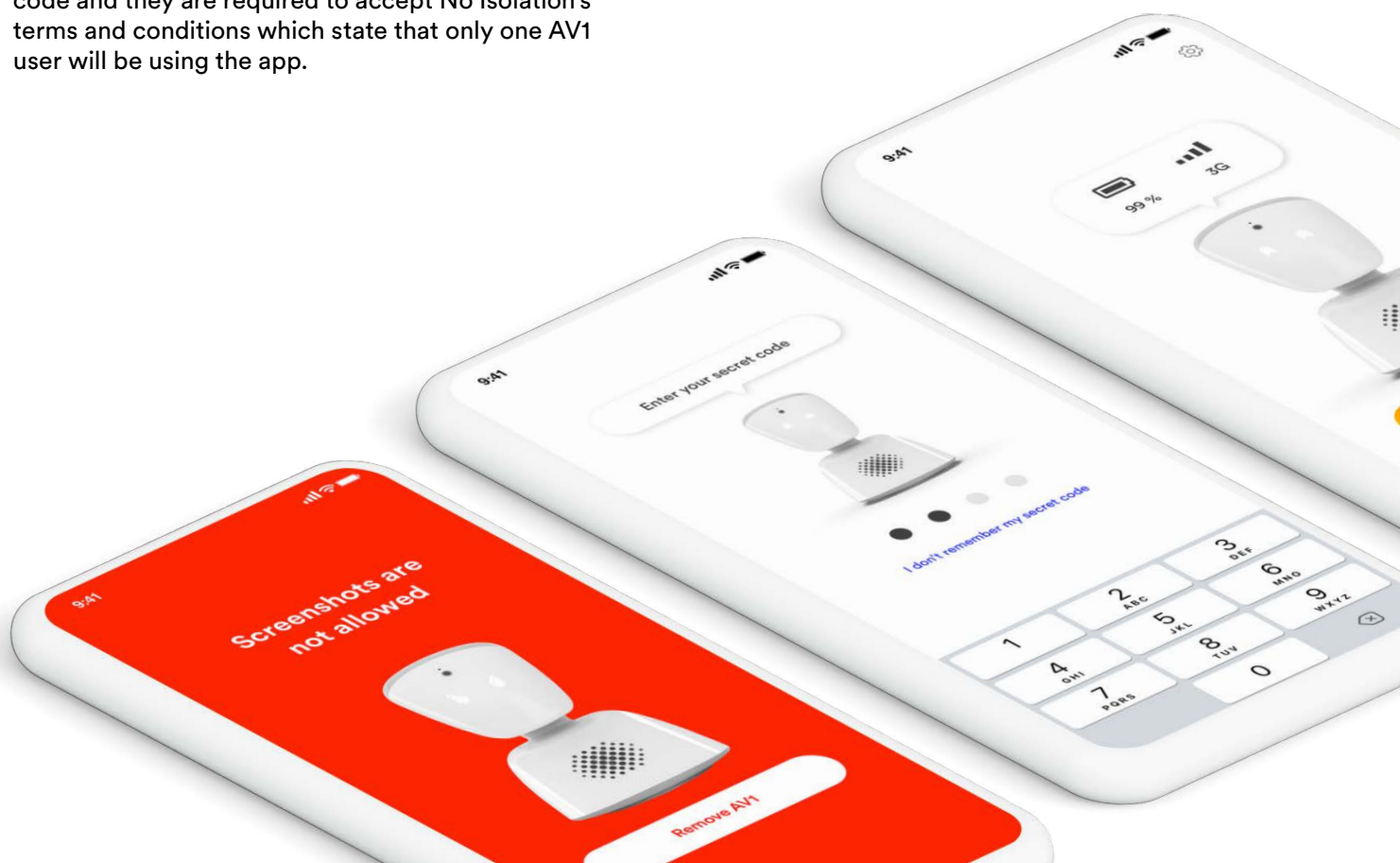
Consent requirements
Schools are not legally obliged to collect consent from parents of other children in the class to permit use of AV1, rather it the schools choice to do so if they deem it necessary.

Addressing concerns
Concerns from parents or staff may arise from an initial lack of understanding of the technology. We have drafts of information letters that are available for you to edit and send out to educate others on how AV1 works.

GDPR compliant
No Isolation do not need, or ask for, any personal data about the AV1 user. We only store customer data (e.g. name and contact information of school or LA) in order to process an order and payment.

Lesson Plan: Introducing AV1

Lesson Title	Introducing AV1
Learning Objectives	To empathise with what it feels like not to come to school To understand what AV1 is, how it works and how to interact with it
Resources	AV1, AV1 charger and iPad/tablet AV1 colouring sheet (primary) Letter for parents (for students to take home) - template available
Key Vocabulary	social isolation, loneliness, passive, encrypted, e-safety

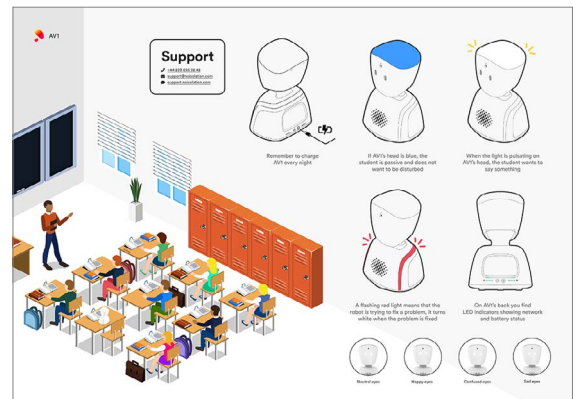| Time (55 mins)	Teacher	Students
Starter (10 mins)	Starter question: *"What would you miss if you weren't able to come to school?"* Further discussion point: *"What reasons might stop someone from being able to attend school?"* Teacher to take feedback from students Teacher to explain the impact of social isolation for students who are unable to attend school	Students complete spider diagram to suggest what they might miss out on if they were unable to attend school Students contribute answers
Hook (10 mins)	Teacher to play BBC video(s): "Ian" by Mundoloco CGI Ian Foundation or "I can't go to school today" by BBC Teach Teacher to take feedback from pairs Further discussion point: *"Can the students identify any further impacts of not coming to school? "*	Students to discuss in pairs how they felt when watching the video(s)
AV1 presentation (10 mins)	Introduce AV1 to the class. Talk through the new vocabulary, functionalities and security features where you think necessary Teacher to demonstrate how AV1 works	Students discuss the functionalities of AV1 and which they think are most important
Activity: students try using AV1 (15 mins)	Split the class into small groups One by one, ask each group to go outside the classroom with the tablet and connect to the AV1	Each group should have a go using AV1 by asking the class a question or telling a joke from outside the classroom
Discussion (5 mins)	Discuss the remaining videos showing AV1 being used outside of the classroom: - Camping video - Football mascot video - For older students Take any remaining questions from students about AV1 Teacher to select AV1 buddies (to help get AV1 around and make sure it's charged)	Students ask questions Students volunteer to be AV1 buddies
Plenary (5 mins)	Quiz students on knowledge of AV1 functionalities Hand out parent letter and take home activity - AV1 colouring sheet (primary)	Students recap on AV1 functionalities Students pack up

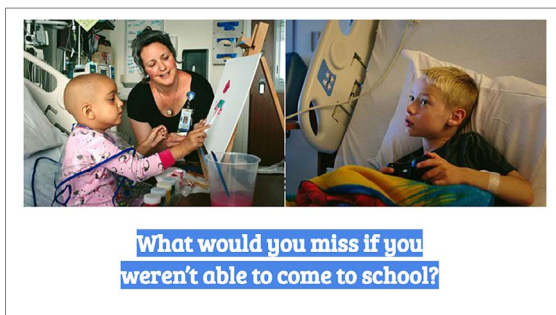# Other resources available for download

Template letters

Template information letter for parents of the user and parents of children in the class explaining AV1's privacy features and guidelines for using at home
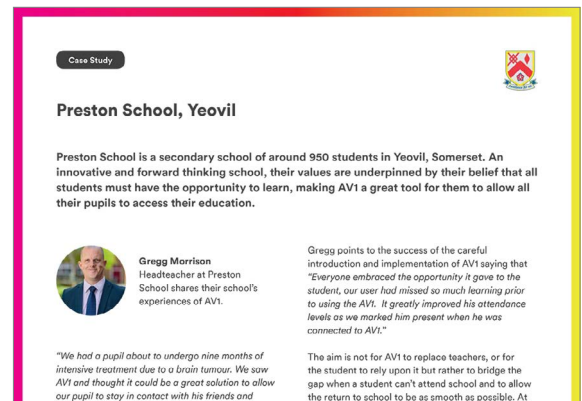
Poster

Classroom poster explaining the different lights and expressions, as well as contact information for our support team
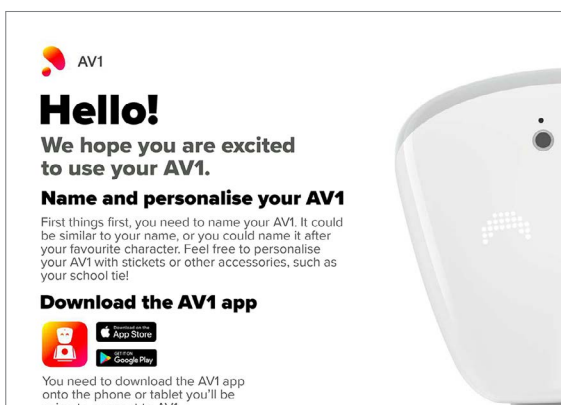
Presentation

Slides to accompany the introductory lesson plan on page 8
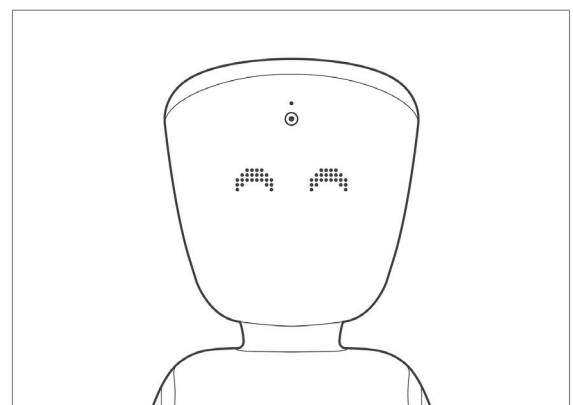
Case study

Examples of schools experiences using AV1.

User guide

Guide for the child using AV1 at home

Colouring templates

Blank AV1 sheets for children to decorate and design

Practicalities of having AV1 at school

Initially, we suggest only using AV1 in a handful of lessons, to give the teachers and students a chance to get used to AV1. You could start with the lesson plan we provide on page 8, then choose some of the child's favourite subjects.

In Primary settings it is likely that AV1 will remain in the same classroom throughout the day. So you can leave AV1 on the desk on standby to allow the child to join as and when they are able to.

TOP TIP

In secondary schools, it might be that AV1 has to move classes throughout the day, so you could assign AV1 buddies who are responsible for ensuring AV1 makes it to their next class. This could be a close friend of the child using AV1, or someone that shares their timetable.

''We held an introductory lesson to classmates so they could familiarise themselves with AV1, and from this, two of the users' friends were appointed 'AV1 buddies', responsible for transporting it from class to class."

Gregg Morrison
Headteacher at Preston School,
a primary school in Somerset

The School Day

- Start the day by putting AV1 out on it's desk and turning it on, ready for its first lesson. We suggest placing it near the front for teacher led classes, and ensuring it is moved to stay included with any group activities.

- AV1 should enjoy break times too. Feel free to bring AV1 to the playground to join in the fun. Remember, AV1 is covered by an accidental damage warranty!

- If AV1 has had a busy morning and is low on battery, we recommend topping it up to charge at lunch. Remember AV1 can also be used whilst it is plugged in charging.

- At the end of the day, press and hold the button on the back to turn AV1 off and leave it to charge overnight. It is safe to do so, and it ensures a full battery for the next school day

TOP TIP

An AV1 timetable lanyard could be placed around the AV1's neck so the AV1 buddies and other classmates always knows where it needs to be.

"As his class teacher, I took responsibility for the AV1, ensuring it was charged at the end of the day and ready to be used each morning. Some of our students were entrusted with the AV1 during breaks and they would go around the playground chatting with our pupil and other peers and staff. We always had a good laugh!"

Mihaela Chowdhury
Teacher at Hornbeam Academy

Certificate of Inclusion

Awarded by No Isolation to

for completing their first lesson with AV1.

This school proudly celebrates and embraces the use of the AV1 distance learning avatar, and uses AV1 to support children who are unable to access school due to physical or mental illness, ensuring all young people, regardless of their health, can receive the education they deserve, and are legally and morally entitled to.

Congratulations!

No Isolation

AV1

Do you need any support?

Contact us

📞 020 3966 5397
✉ support@noisolation.com
💬 In-app chat

When getting in touch remember to quote your AV1 serial number, found on the base of your AV1

Visit us

support.noisolation.com

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