LES MILLS VIRTUAL

APP SETUP + AV GUIDE

LesMILLS

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SYSTEM OVERVIEW

The LES MILLS™ Virtual App has been designed to provide an 'in-studio' solution for operators to deliver Video on Demand (VOD) content on the big screen as part of an overall Group Fitness experience.

For the system to operate as designed, this guide should be understood and followed. Ignoring the requirements contained within will expose operational challenges that could result in:
- Delays in classes running
- The studio being offline
- Further investment in further equipment

There are four key parts of the Virtual App eco-system that all work together to deliver this experience. All work online for immediate updates to the schedule and content. Once the Virtual App is installed and set up as per this guide, all content downloads and updates will hAppen automatically. This can be managed within the App settings to set download times and manage the programming range.

VIRTUAL APP
- This system is only AVailable on iOS. Simply search 'LES MILLS Virtual App'.
- The App must remain open at all times to operate. If the App is closed, programming will not start – the App should be locked into Guided Access Mode (further details can be found within iPad settings).
- Video content does not play on the iPad/App; if no class/program is playing, the LED screen will Appear offline or hAVe the screen sAVer showing (if enabled). The App will (if automation is enabled) send a command to turn on projectors for a class to commence playback.

THE SCHEDULER
- A web-based solution that manages the studio timetable and access to the App (www.lesmillsvirtual.com).
- Multiple studios can be managed from the scheduler. Each Club site under one set of credentials.
- The timetable is managed from this web-based solution and updates directly to the App (when online) within 90 seconds (subject to web speed).

SALESFORCE
- Our Les Mills CRM system
- Designed to manage each clubs user credentials and digital entitlements
- Salesforce is managed by the local LES MILLS team

AV REQUIREMENTS
- Projectors or LED screen setup within the studio
- Audio system – includes where live fitness classes are utilised with Instructor mic packs and music playback
- Internet systems
- All AV should be managed by an AV expert using this guide as reference

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INSTALLATION RESPONSIBILITIES

It is always best to be very clear at the beginning of each installation project as to who is responsible for each part of the project.

	DESCRIPTION	XXXX
AV-Design	Equipment Recommendation, Automation, Studio Configuration	AV-Partner
AV-Installation	Full Installation Of All Hardware And AV-Equipment	
Virtual App	Configuration Of Virtual App And Scheduler	AV-Partner & Club
Automation	Installing Cabling, Coding, Testing	AV-Partner
Technical Testing	Testing Full AV Setup, Scheduling, Playback Of Classes, Automation	
Troubleshooting	Assisting With AV-Installer's Queries Throughout The Installation Process	AV Partner & Les Mills

EQUIPMENT CHECKLIST

Here is an overview of the mandatory equipment required for the installation + set up of the Virtual App. Not following this will compromise class playback.

HELPFUL INFORMATION
- Each club can operate several studios off one account - each studio needs to be setup within Salesforce by Les Mills before it can be accessed on the Scheduler and/or another iPad/App configured.
- Each studio must hAVe its own iPad configured for that specific studio.
- Each iPad/App will run the specific timetable and programming choices for that specific studio.

For all cables: never put them under too much strain, soft curves or bends as opposed to tight bends are recommended to ensure they last long term, this can be called 'strain relief'

EQUIPMENT	DESCRIPTION	WHY?
Apple iPad Pro-11 or 12.9 inch with minimum 512GB storage	The Virtual App only runs on iOS, not Android. The iPad Pro is supported due to chip and memory size. All content is hosted locally on the iPad and not streamed. File sizes are large hence the 512GB requirement. Using the 12.9" provides a better timetable/screen experience.	If an iPad Pro is not used this will cause issues with storage capacity as well as playback performance delays where VOD content can drop out of sync on screen. Other iPad options are not supported by LES MILLS.
Apple iPad Power Adapter 30W (not supplied as standard)	The App and iPad should remain online at all times, the standard 18W power adapter that is supplied will not hold its battery with playback, causing the iPad to shut down.	A flat iPad battery. Classes unable to operate as scheduled.
Apple original USB-C Digital AV Multiport Adapter or 12 South adapter hub * The cable on the adapter should be softly bent/curved as opposed to tightly bent.	The App only supports genuine Apple adapters*. This adapter has an HDMI, USB-A and USB-C charging port which are required for successfully operating the system. *Twelve South Staygo is AVailable in some markets and has been tested.	The App only recognises authentic Apple adaptors. Playback, sync and charging/internet connectivity issues may occur.
EDID emulator with audio extraction Alternative: Atlona DISP-CTRL as the EDID Emulator and automation control processor but a dedicated HDMI audio extractor will also be required.	Essential to stabilise the communication between the display and iPad, ensuring a video signal always reaches the display.	Playback will hAVe Intermittent delays or sync issues with playback, audio and visual may occur when the EDID emulator is not used.
Dedicated router Recommended Dual-band capable of 600 MBPsDevice can also be hardwired to router/switch, which requires full support of on-site IT/Network staff to configure	The App and iPad should remain online at all times, the standard 18W power adapter that is supplied will not keep up the charge with playback, causing the iPad to shut down.	iPad battery will go flat with class playback and therefore classes will not operate as scheduled.
Apple USB-A to ethernet adapter A device can be hardwired to the router/switch but requires support of on-site IT/Network staff	Enables the iPad to be connected via LAN to the internet as opposed to WIFI – this is optional although recommended	Enables hardwiring of internet (more stable, typically faster), without it the iPad will rely on WIFI.

EQUIPMENT CHECKLIST

EQUIPMENT	DESCRIPTION	WHY?
HDMI Cables (2)	One short and one active. For longer distances an HDBaseT or HDMI-over-IP extender is required.	The system requires all outputs from the Virtual App to be delivered via HDMI. The App does not support Bluetooth.
Cat5 network cables (3)	Configuration dependant. Partner to advise based on studio/AV configuration.	Dependant on AV requirements, as designed by AV specialist.
Audio connection cable	As specified by AV specialist.	As above.
iPad Wall Mount* ***floor mounts are an option although hard to source for the required setup and can be an easier option to remove/steal**	House the iPad securely so that device cannot be stolen or removed from AV setup. Mount should allow enough space for cables as well as air flow as iPad is on 24/7.	iPads are desirable and open for theft. Secure the device and adaptors safely to minimize issues to the set up and day-to-day operation.
Thunderbolt 3-capable extension cable	Required for the iPad Pro and Apple Multiport to operate together. An adapter may be needed to fit into the wall mount enclosure.	Standard USB-C cables will not pass HD video.
LED Video wall, LCD Tiled Video Wall, Projector and Screen, or Commercial Grade Display		

STUDIO WITH AUTOMATION

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EQUIPMENT CHECKLIST

The LES MILLS Virtual App sends automatic commands to projectors using the PJLINK protocol, a common method that uses the network to send and receive.

The App also easily integrates into your club automation control system (Crestron, AMX, Extron etc.), supporting both TCP and UDP protocols.

Apple iPad Pro 12.9 inch - min 512GB capacity
*the 11 inch can be used however mounts for this size can be difficult to source

Apple iPad 30W power adapter
(not supplied with iPad)

Apple original USB-C AV Multiport Adapter
(allow enough strain relief on adapter cable to prevent cable disintegration)
Strain relief = the cable on the adapter should be softly bent/curved as opposed to tightly bent. Twelve South Staygo USB-C hub type C is another alternative adapter option that is supported

Apple USB-A to Ethernet adapter (optional)
Device can also be hardwired to router/switch, which requires full support of on-site IT/Network staff to configure

HDMI Cables (2)

Cat5 network cables (3)

EDID emulator with audio extraction.
As an alternative to a standalone EDID Emulator, an Atlona DISP-CTRL automation control processor can be used.
In that scenario, a dedicated HDMI audio extractor is also required

Dedicated Router
is required for the system to connect to the Les Mills Virtual Scheduler and to send Automation commands.
(Router recommendation: Dual-band capable of 600MBP's or alternatively hardwire in the internet connection using an Ethernet to USB-A adapter though this requires strong on-site IT support)

iPad Wall Mount*
*floor mounts are an option although hard to source for the required setup and can be an easier option to remove/steal

AV Kit (projector/screen, LED screen, audio system)

Apple original adapters are mandatory or Belkin USB-Ethernet adapter and 12South Hub

SET UP PROCESS

Short HDMI Cable
Conncets the iPad to the EDID

Active HDMI Cable
Conncets the EDID to the External Display/Projector

Cat 5 network cable
Connects the router to the projector and to the internet

Audio Connection Cable
3.5mm to RCA connects EDID to the Audio System

Original Apple iPad power adapter
A 30W power adapter is required to charge the iPad

Note: Using TCP or UDP protocols will additionally require an automation control unit

1a Connect active HDMI cable to the external display and EDID emulator

1b Connect short HDMI cable into the EDID emulator and Apple USB-C Digital AV Multiport Adapter

1c Connect audio cable from the EDID emulator to the sound system

1d Connect the Apple iPad Pro power adapter (30W) to the Apple USB-C Digital AV Multiport Adapter

1e Connect Apple USB-C Digital AV Multiport Adapter into the iPad Pro (ensure strain relief)

1f Connect Apple USB-A to ethernet adapter to Apple USB-C Digital AV Multiport Adapter

1g Connect Cat5 network cable from the Apple USB-A to ethernet adapter to the dedicated router

1h Connect Cat5 network cable from the projector to the dedicated router

1i Power ON the iPad Pro

1j Power ON the external display and select the correct source input for the HDMI cable. At this stage the external display should be mirroring the iPad desktop icons

1k Tap to open the Les Mills Virtual App

DEDICATED ROUTER

PROJECTOR/ EXTERNAL DISPLAY

I-PAD AND WALL MOUNT

STRAIN RELIEF

USB-A TO ETHERNET ADAPTER

APPLE USB-C DIGITAL MULTI-PORT ADAPTER

EDID EMULATOR WITH AUDIO EXTRACTION

AUDIO SYSTEM

I-PAD POWER ADAPTER

PROJECTOR + ROUTER SETUP FOR PJLINK

REQUIREMENTS
- A dedicated dual-band router (router is not required if iPad and projector can be hardwired to the same network)
- PJLINK compatible projector

PLACEMENT + ROUTER SET UP

The router should be connected to the Virtual iPad and projector via two Cat5 network cables.

The router should be set up and configured locally on a laptop using the router's installation software.

PROJECTOR SETTINGS

When configuring the projector, use the local menu on the projector, not the projector's browser-based configuration.

When connecting the projector with the HDMI Cable, ensure you **disable any other input source.** This will maintain a stable connection between the Virtual iPad and the projector so that the correct input is selected on boot.

Place the projector in **network standby** mode. This will allow the projector communication port to remain open when powered off. The network connectivity should remain active, even when it's is in network standby mode.

Disable any functions which may cause the projector to turn off by itself, e.g. power sAVe.

Ensure a static IP address on the projector so that it can be found on the network reliably. This IP must be within the same range as the iPad. DHCP should not be used when connecting a projector to a network if automation is required.

Be sure to note the IP Address and password of the projector (it should be located in a NETWORK SETUP or INFO sub-menu in the projector's User Interface. An example of an IP address is 192.168.0.10). You will need this IP Address in order to set up PJLINK Automation on the LES MILLS Virtual App.
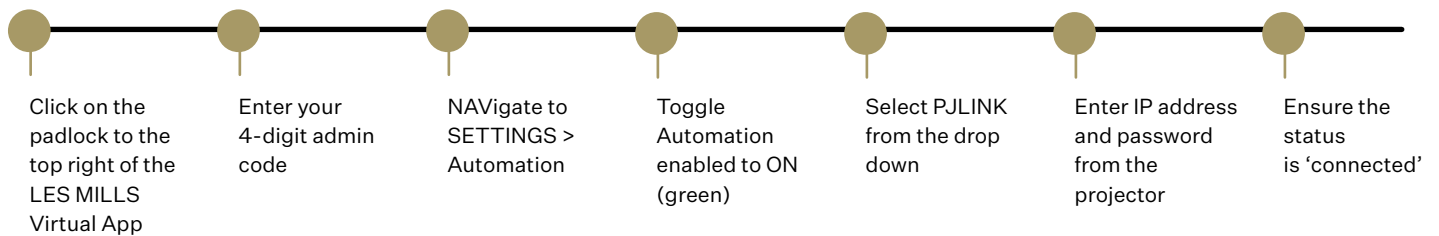
INSTALLATION GUIDE FOR PJLINK

REQUIREMENTS
- The iPad and projector (on a static IP) must be connected to the same network
- You hAVe a PJLINK compatible projector
- The port used by the projector for PJLINK is not blocked by a firewall (port 4352)

INSTALLATION
- Check the projector settings to confirm communication is ENABLED. Without this, the projector may not be able to receive commands to turn on or off.
- Ensure you hAVe the projector IP address and password (We suggest you leAVe the default password in place. Should the projector ever be replaced or reset, the password will still work).

LES MILLS VIRTUAL APP AUTOMATION SETUP

Click on the padlock to the top right of the LES MILLS Virtual App	Enter your 4-digit admin code	NAVigate to SETTINGS > Automation	Toggle Automation enabled to ON (green)	Select PJLINK from the drop down	Enter IP address and password from the projector	Ensure the status is 'connected'

Note: When status is 'Disconnected' or 'Connecting' automation commands are NOT SENT.

TESTING PJ LINK

Test the PJLINK connection by using the TEST buttons. The command sent will be shown in a ribbon at the top of the iPad screen. Show projector messages should be enabled for this to work.

Command sent for TEST CONNECTION:%1POWR(SP)?<CR>

Command sent for TEST POWER ON:%1POWR(SP)1<CR>

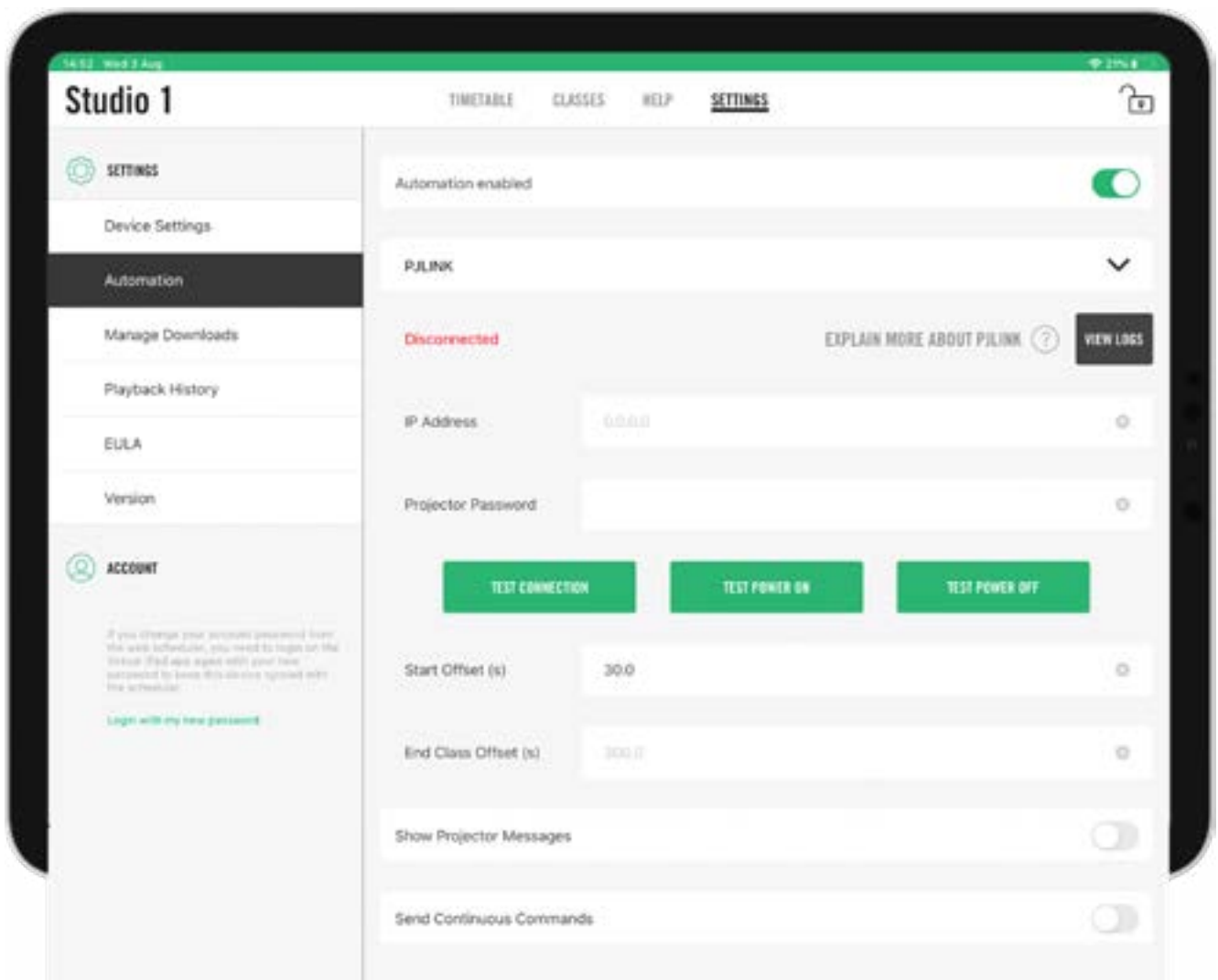Command sent for TEST POWER OFF:%1POWR(SP)0<CR>

Note: (SP) denotes space and (CR) denotes a carriage return

TESTING AV AUTOMATION IN ADMIN MODE

Press the padlock, and enter the admin code

Press Classes, and select a class for playback

Press the play icon to commence playback (a footer will Appear with a scrub bar and other player controls)

START OFFSET + END OFFSET

This allows control of playback, accounting for the time it takes to power on/off the projector/AV-system so that startup is handled smoothly.

SCHEDULED PLAYBACK
START OFFSET

Use this field to increase / decrease the time between the projector turning on and the scheduled video beginning playback. The default is 30 seconds.

The POWER ON command will be sent x seconds prior to the scheduled class. Video will begin playback on time.

END OFFSET

After a scheduled video completes, if the next scheduled event is due before the END OFFSET, the projector will not turn off. The default and recommendation is 5 minutes (300 seconds)

> **IMPORTANT For automation for the Les Mills Virtual App, the END OFFSET should be higher than the START OFFSET.**

ON DEMAND PLAYBACK
START OFFSET

An automation timer screen will Appear on the iPad to count down the time until video playback begins.

END OFFSET

The projector will not power off until the END OFFSET countdown has completed. If a new class is started before this time, the projector will not turn off until video is stopped.

ADDITIONAL AUTOMATION FEATURES

EXPLAIN MORE ABOUT PJLINK
To see an explanation of each field, and what the different connection statuses mean click 'Explain more about PJLINK'.

SHOW PROJECTOR MESSAGE
When enabled, any messages received from a connected PJLINK projector will be displayed on the top of the iPad screen.

SEND CONTINUOUS COMMANDS
May improve automation performance for some projector brands / models by constantly sending commands.

STUDIO WITHOUT AUTOMATION

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EQUIPMENT CHECKLIST

In some cases, automation will not be required within the studio for class playback. Your AV expert should advise on how they hAVe designed the studio configuration and equipment to align with the operator's expectations.
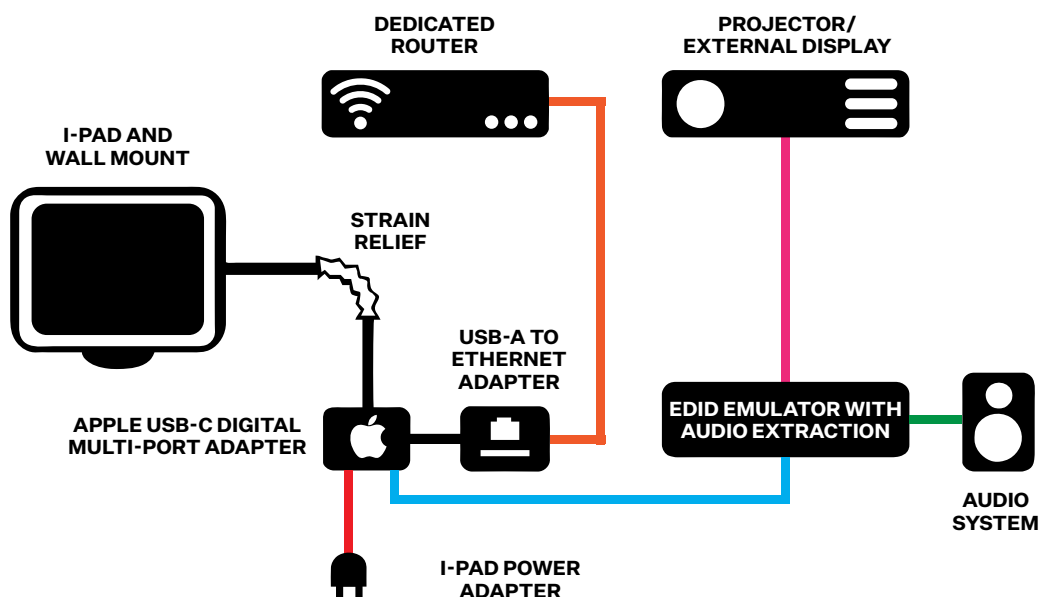
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1a 1a. Connect active HDMI cable to the external display and EDID emulator

1b. Connect short HDMI cable into the EDID emulator and Apple USB-C Digital AV Multiport Adapter **1b**

1c 1c. Connect audio cable from the EDID emulator to the sound system

1d. Connect the Apple iPad Pro power adapter (30W) to the Apple USB-C Digital AV Multiport Adapter **1d**

1e 1e. Connect Apple USB-C Digital AV Multiport Adapter into the iPad Pro (ensure strain relief)

1f. Connect Apple USB-A to ethernet adapter to Apple USB- C Digital AV Multiport Adapter **1f**

1g 1g. Connect Cat5 network cable from the Apple USB-A to ethernet adapter to the network

1h. Power on the iPad Pro. **1h**

1i 1i. Power ON the external display and select the correct source input for the HDMI cable. At this stage the external display should be mirroring the iPad desktop icons

1j. Tap to open the Les Mills Virtual App. Now the external display will be black and ready for Virtual class video playback. **1j**

DEDICATED ROUTER

PROJECTOR/ EXTERNAL DISPLAY

I-PAD AND WALL MOUNT

STRAIN RELIEF

USB-A TO ETHERNET ADAPTER

APPLE USB-C DIGITAL MULTI-PORT ADAPTER

EDID EMULATOR WITH AUDIO EXTRACTION

AUDIO SYSTEM

I-PAD POWER ADAPTER

LES MILLS VIRTUAL APP WHITELIST

The Virtual App eco-system is primarily an online system which operates with different interdependencies. In some cases you may find your network blocks communication between each part of the eco-system (scheduler, Salesforce, App). The following URL's are recommended to be added to your server whitelist protocols.

api.one.accedo.tv

api.virtual.lesmills.com

cdn.one.accedo.tv

apidata.googleusercontent.com

lesmills.secure.force.com

api.segment.io

cdnapisec.kaltura.com

firebasecrashlyticssymbols.googleapis.com

firebaselogging-pa.googleapis.com

www.googleapis.com

RECOMENDED GEAR

Twelve South Staygo USB-C hub

Dedicated HDMI audio extractor

EDID

Thunderbolt 3-capable extension cable

USB-A Ethernet adapters

AV PARTNER SUPPORT PROCESS

This guide has been designed with the primary purpose of enabling LES MILLS' AV partners to fully understand the requirements of installing the Virtual App within a group fitness or cycle studio.

If the guide is followed and the required equipment used as outlined within this document support enquiries should be limited.

If you do require further support please reach out via email to our B2B Global Support team at **help@lesmillsvirtual.com** emails will be responded within 12 hours during standard business days.

Within your email please at the top state you are an AV Partner (your name) and that you require Level 2 support. This will mean your email is escalated to the correct people within the team.

LES MILLS VIRTUAL

IPAD SETTINGS

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TURNING NOTIFICATIONS OFF

This setting prevents onscreen notifications closing the App.

1. Open settings > select Notifications

2. Change 'Scheduled Summary' to OFF. 'Show Previews' to NEVER. 'Screen Sharing' to Notifications OFF

3. Click SIRI Notifications and Suggestions to OFF

4. Click On each App in the list under NOTIFICATION STYLE & switch to OFF
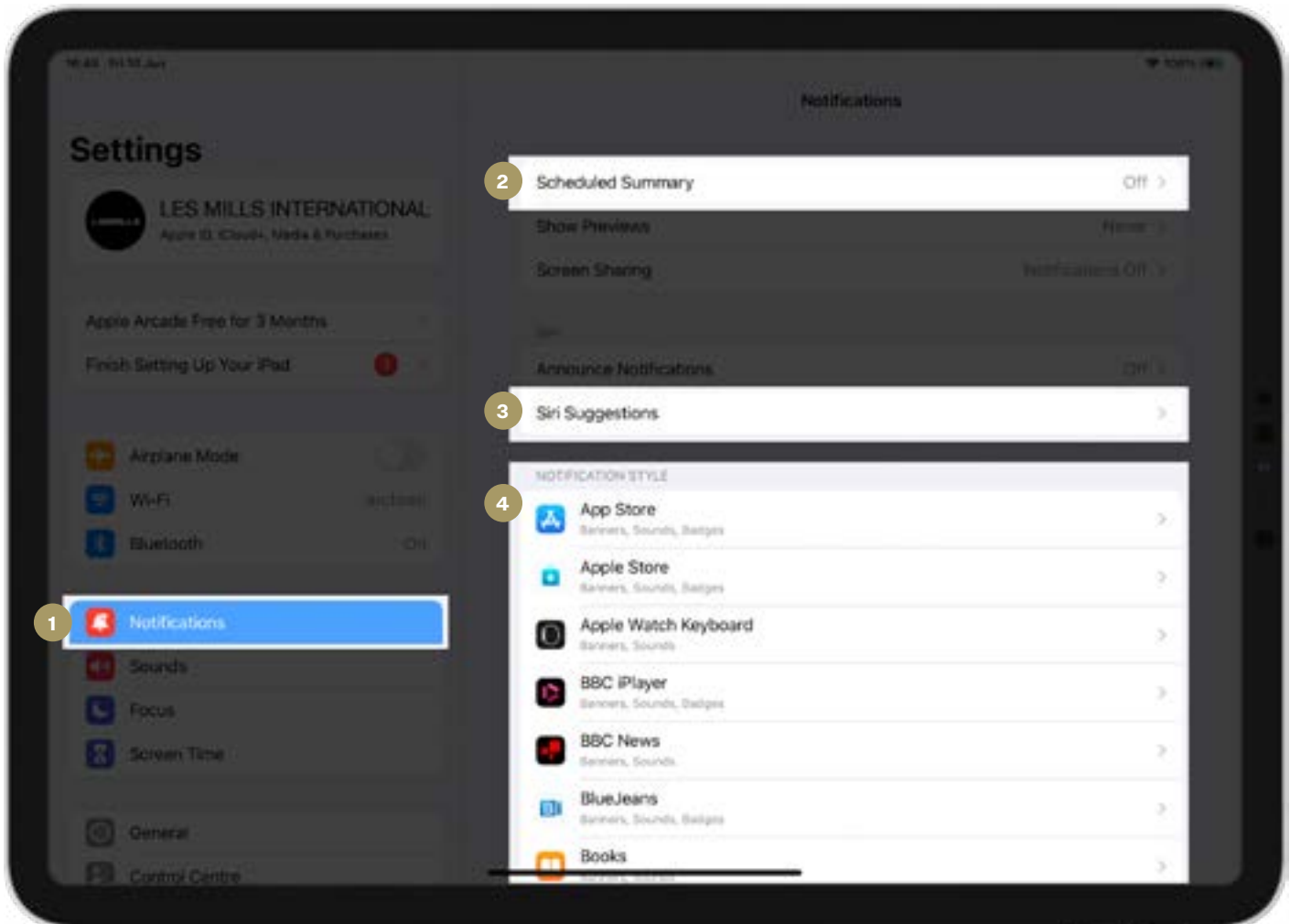
AUTO-LOCK

This prevents the iPad from going to sleep resulting in the Virtual App closing and classes not playing.

1. Click Display & Brightness

2. Click Auto-Lock and change to NEVER
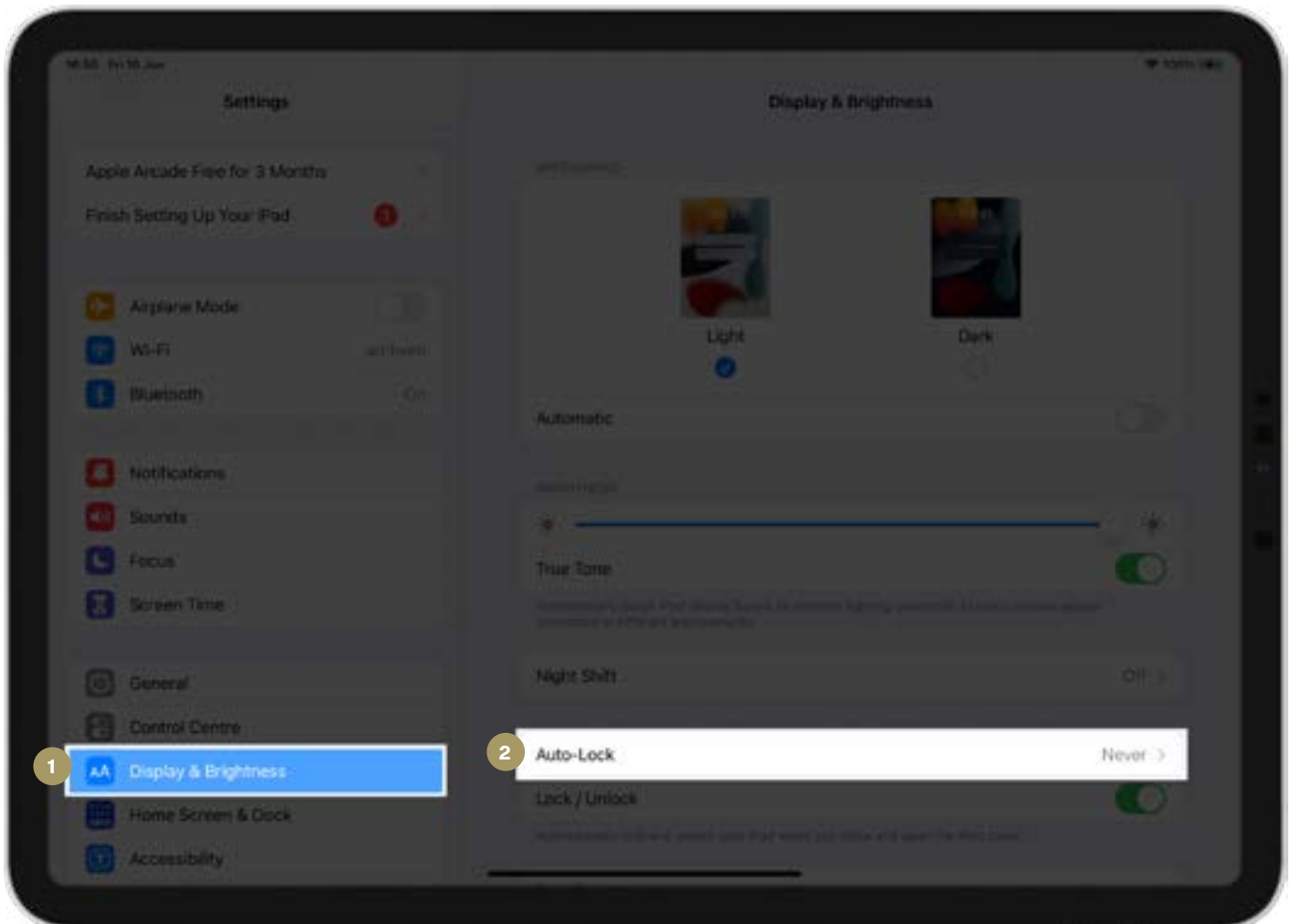
AUTOMATIC UPDATES

This will stop automatic App updates downloading on the iPad (including the LES MILLS Virtual App) resulting in the App closing and classes not playing. As the iPad is exclusively used for the Virtual App all other Apps can be deleted from the iPad.

1. Click App Store

2. Click Notifications & Allow Notifications to OFF and Time-sensitive Notifications to OFF

3. Turn Off Apps & App Updates
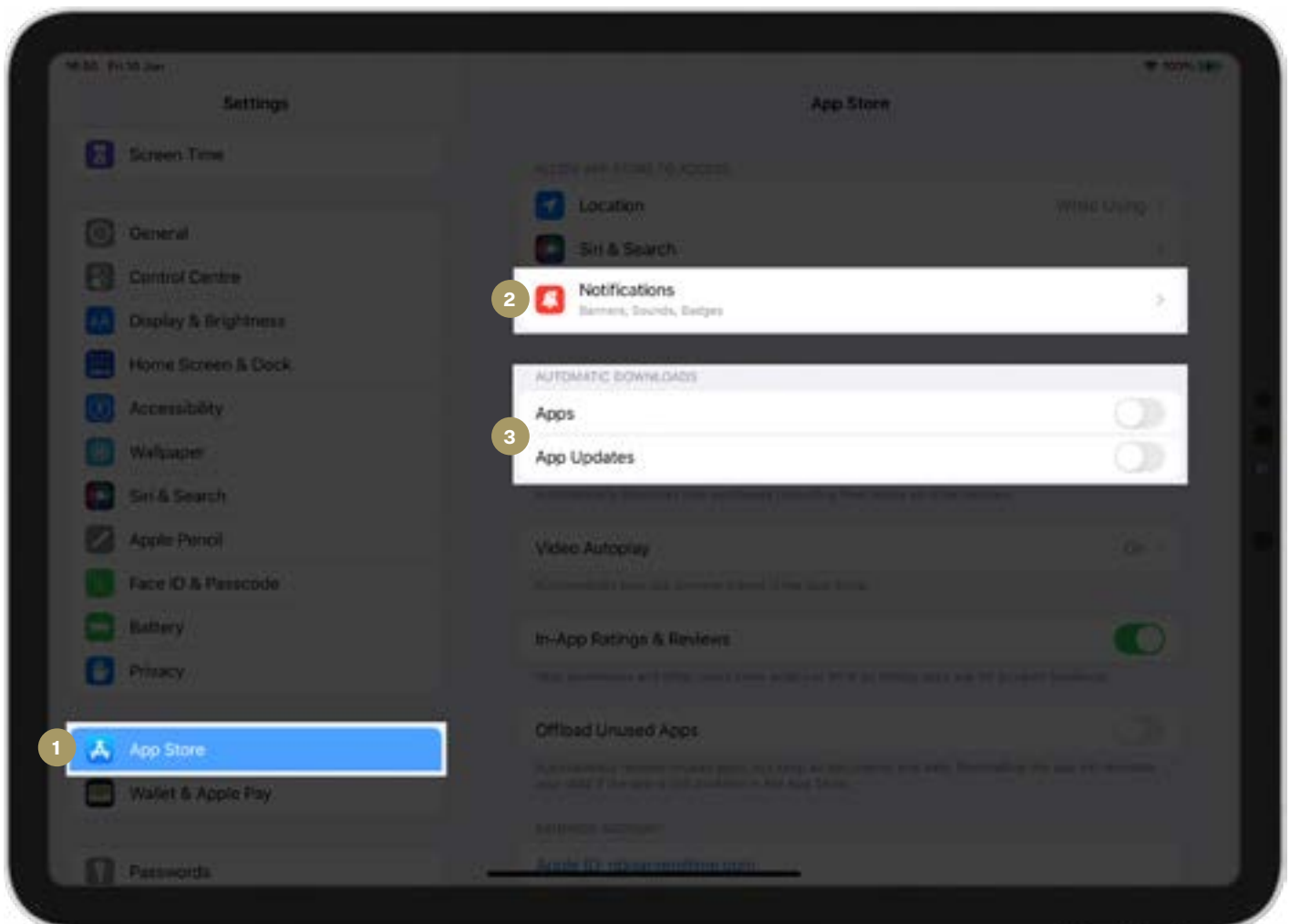
TURN OFF SIRI

1. Click Siri & Search

2. Turn Off 'Listen for 'Hey Siri' & 'Press Top Button for Siri' – both should be grey.

3. Turn Off 'Allow Notifications' – this should be grey.
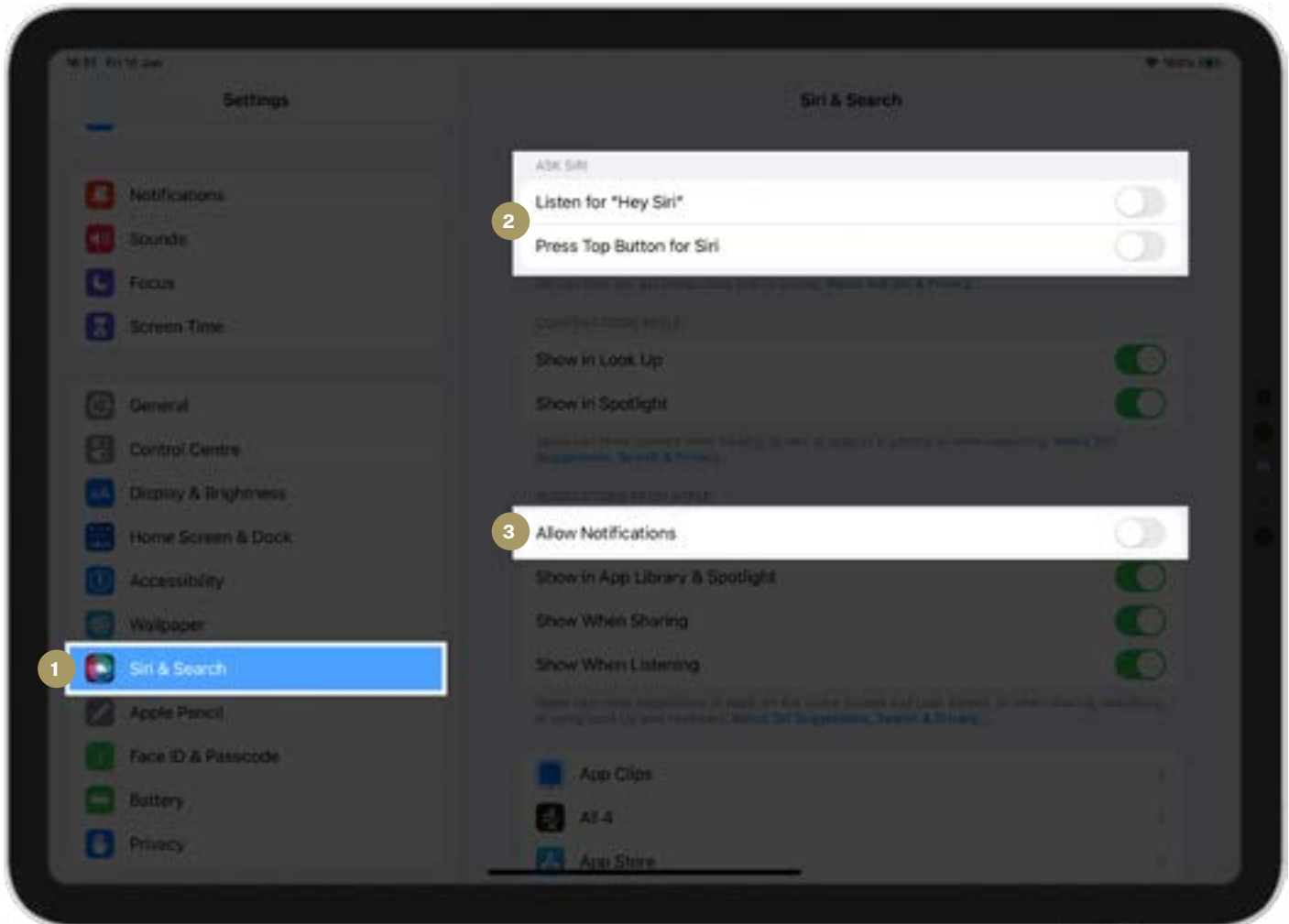
GUIDED ACCESS

Guided Access locks the App to be always on. This prevents members or staff exiting the App and therefore closing it and stopping classes from playing or content updates.

1. Click Accessibility

2. Click Guided Access > turn on (green)

3. Click Passcode Settings and enter a six digit PIN

4. Click Display Auto-Lock and select Never
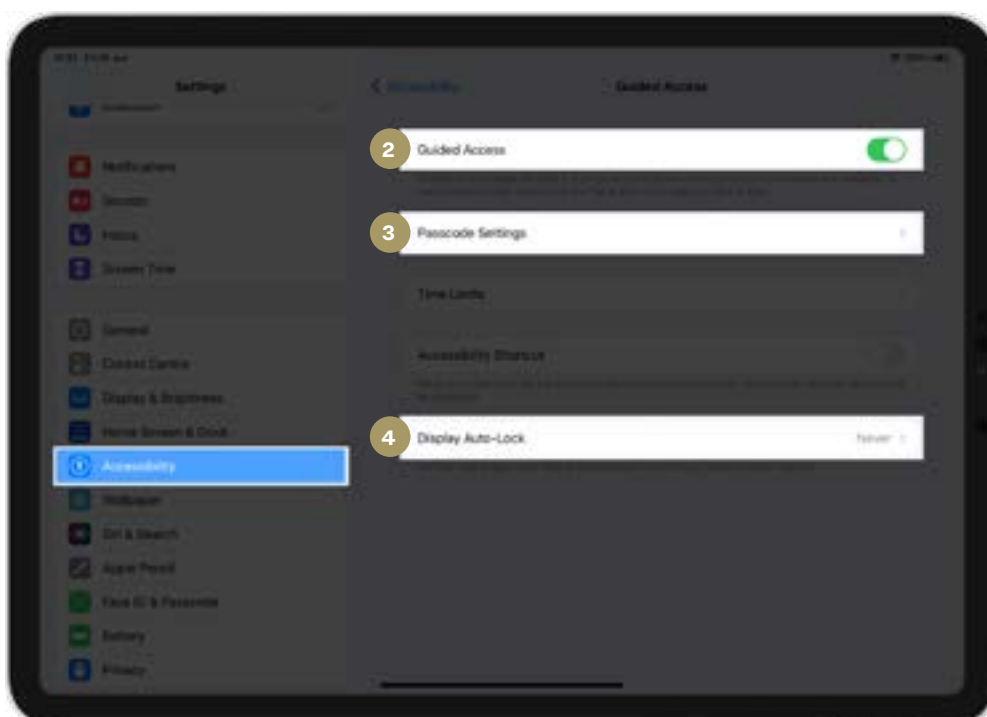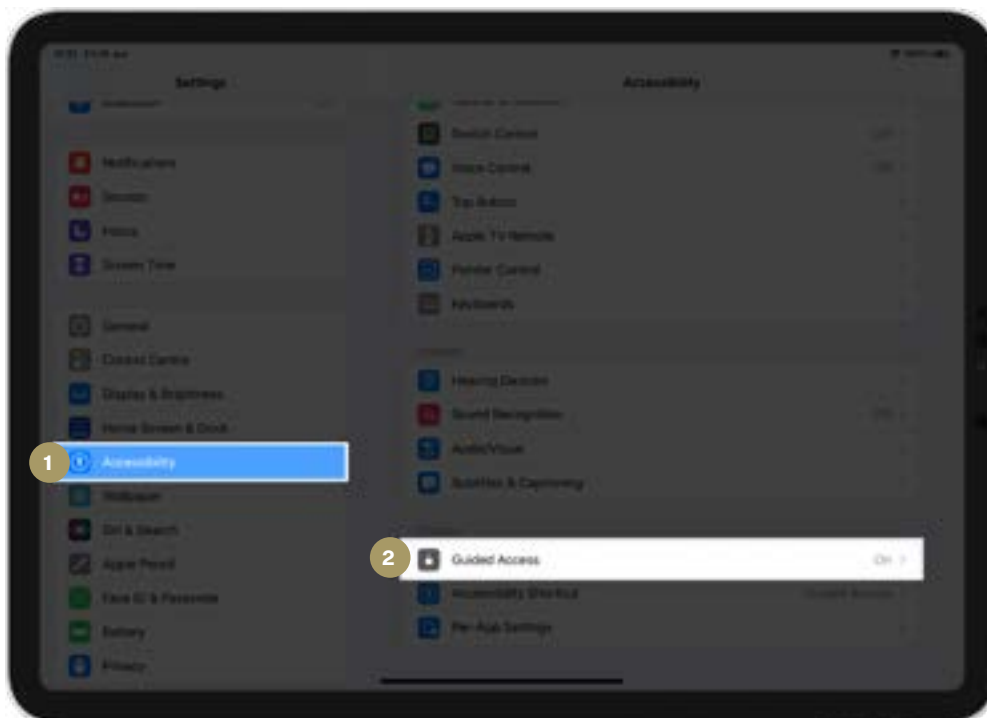
AUTOMATION

If using automation, you will need to make sure you hAVe granted the Les Mills Virtual App access to your local network.

1. Click Settings on the iPad (not the App), and select privacy

2. Click Local Network

3. Ensure LES MILLS Virtual is enabled (toggled on)
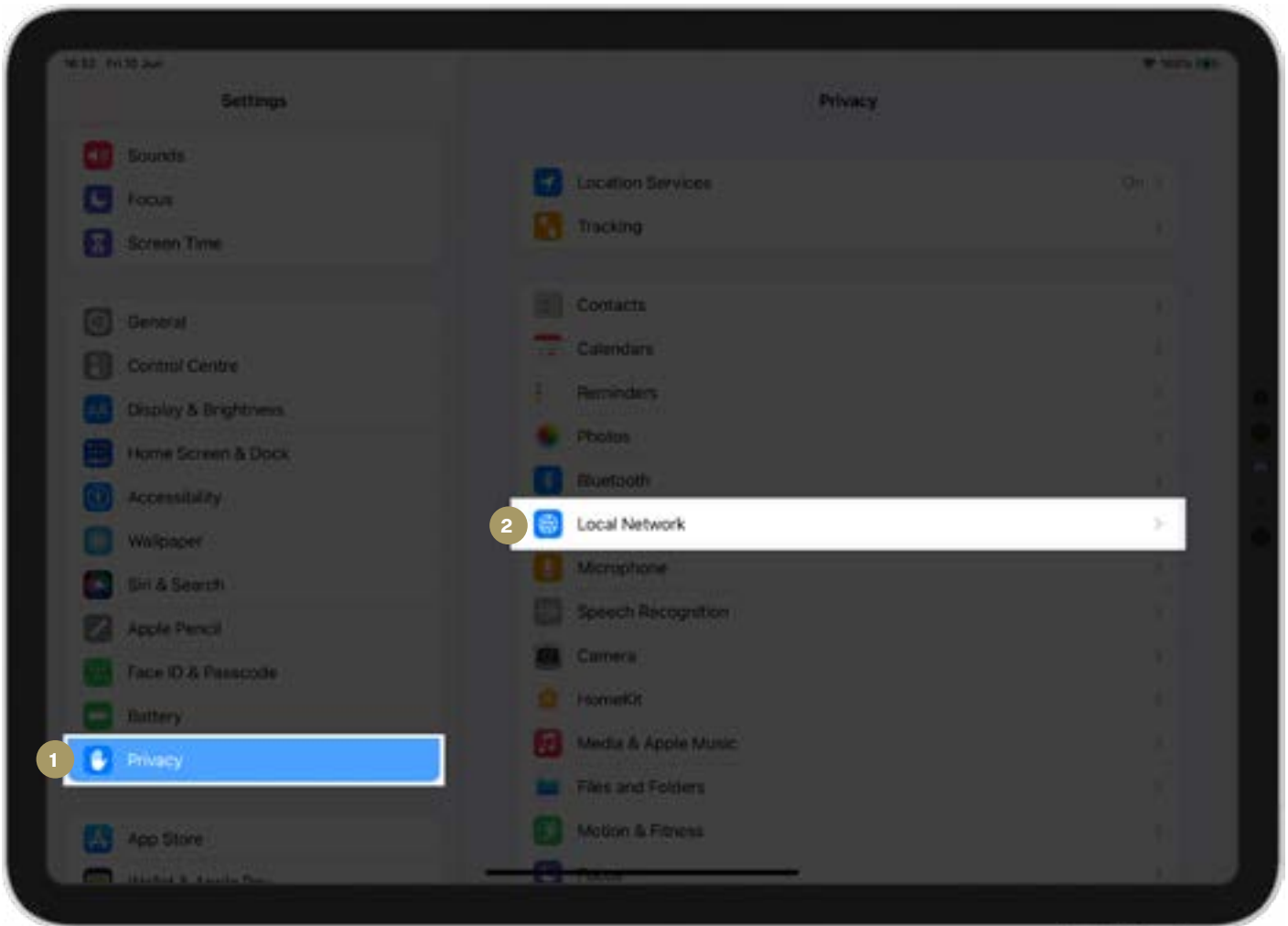
NAMING THE IPAD

Name the iPad to make it easier to determine which iPad is connected to which studio. The name will update in the Scheduler and Salesforce.

1. Click Settings on the iPad (not the App), > select general

2. Click About

3. Click Name and enter the name for the device (in the highlighted area)