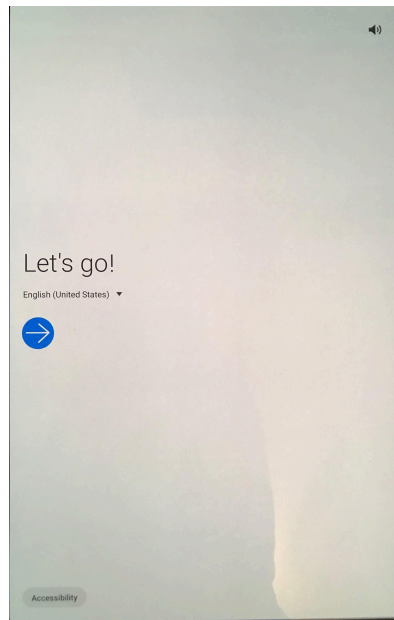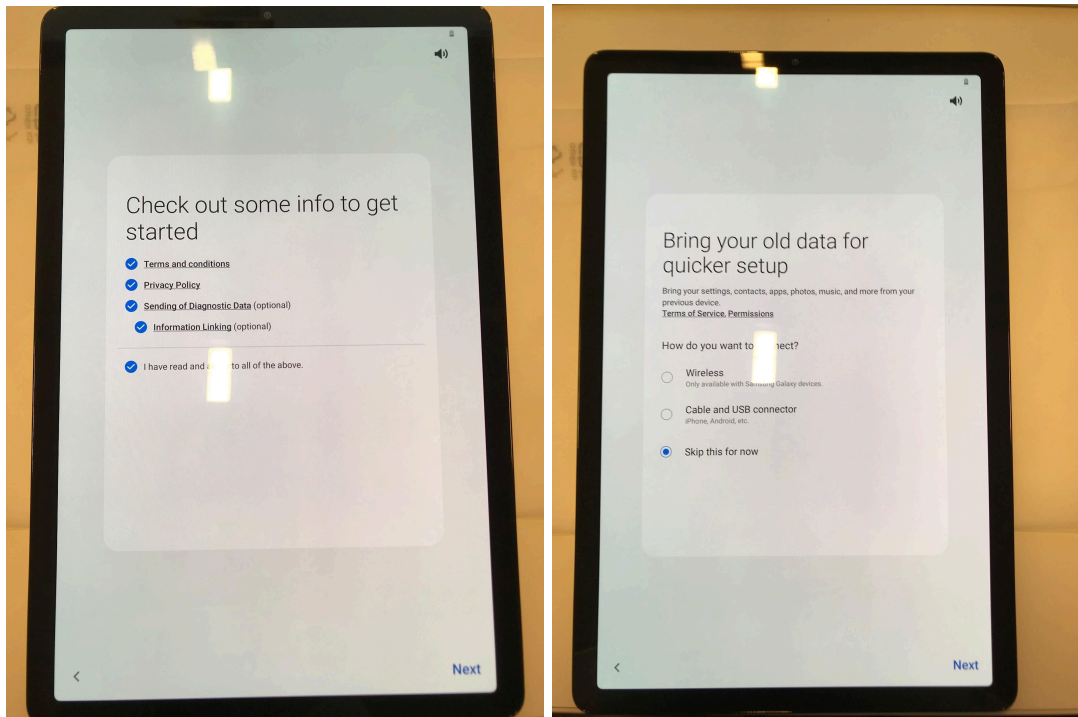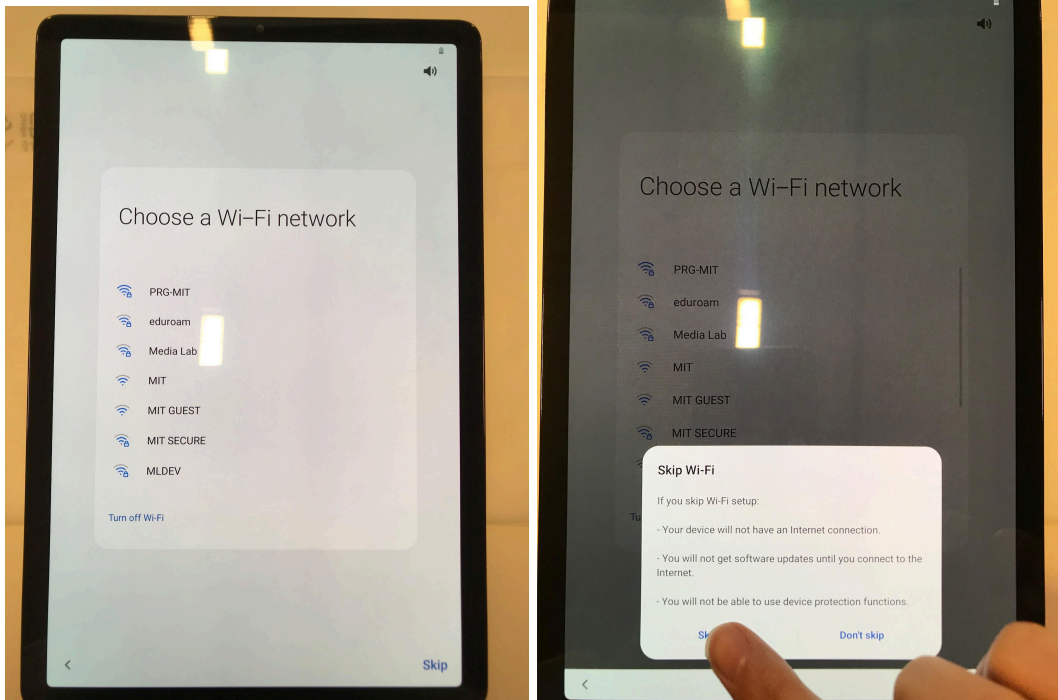# On startup:

1. Power on the tablet, and you'll see the setup assistant page:

2. Proceed to the agreement page, and accept the terms. On the "Bring your old data for quicker setup", select "Skip for now"


3. **[IMPORTANT]** On the wifi page, choose "Skip", or "Turn off Wi-Fi". (Connecting to WiFi in the setup process will lead to an immediate software update, and we don't want that.)
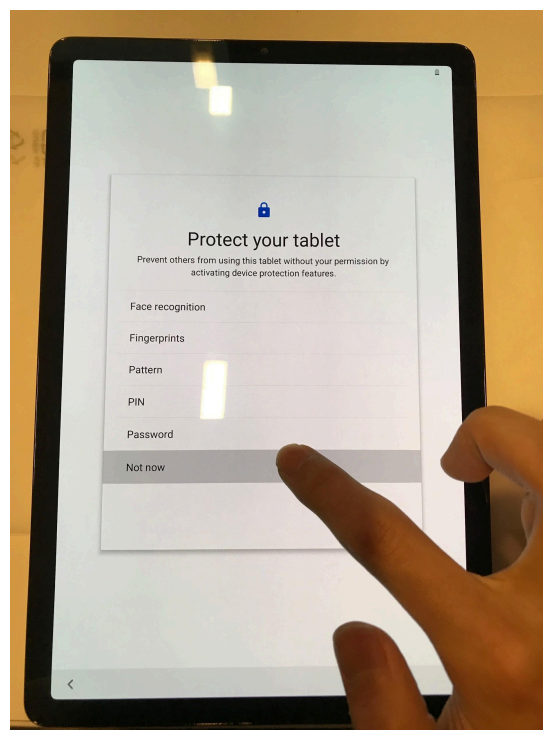
4. On the Date & Time page, adjust it to the correct time zone. The accurate time and date will be updated automatically once the tablet is connected to WiFi.
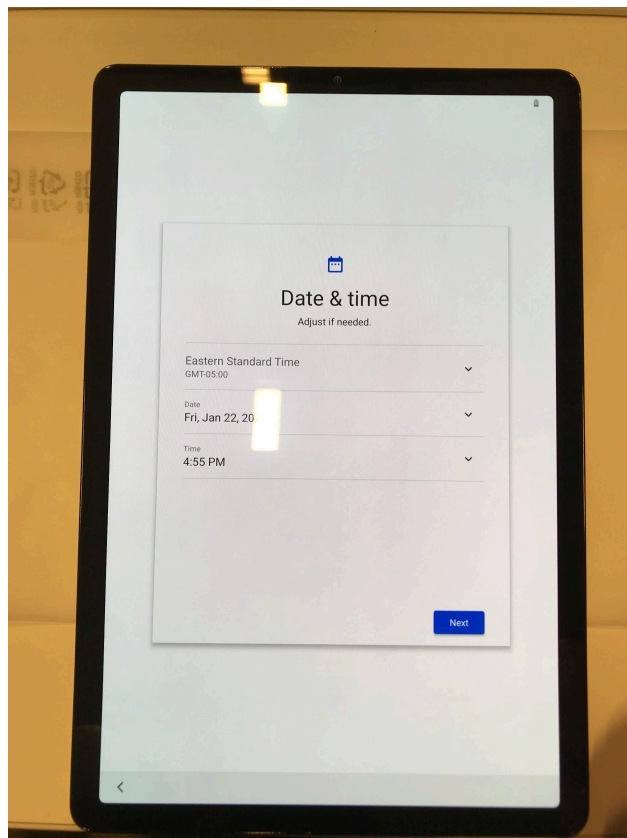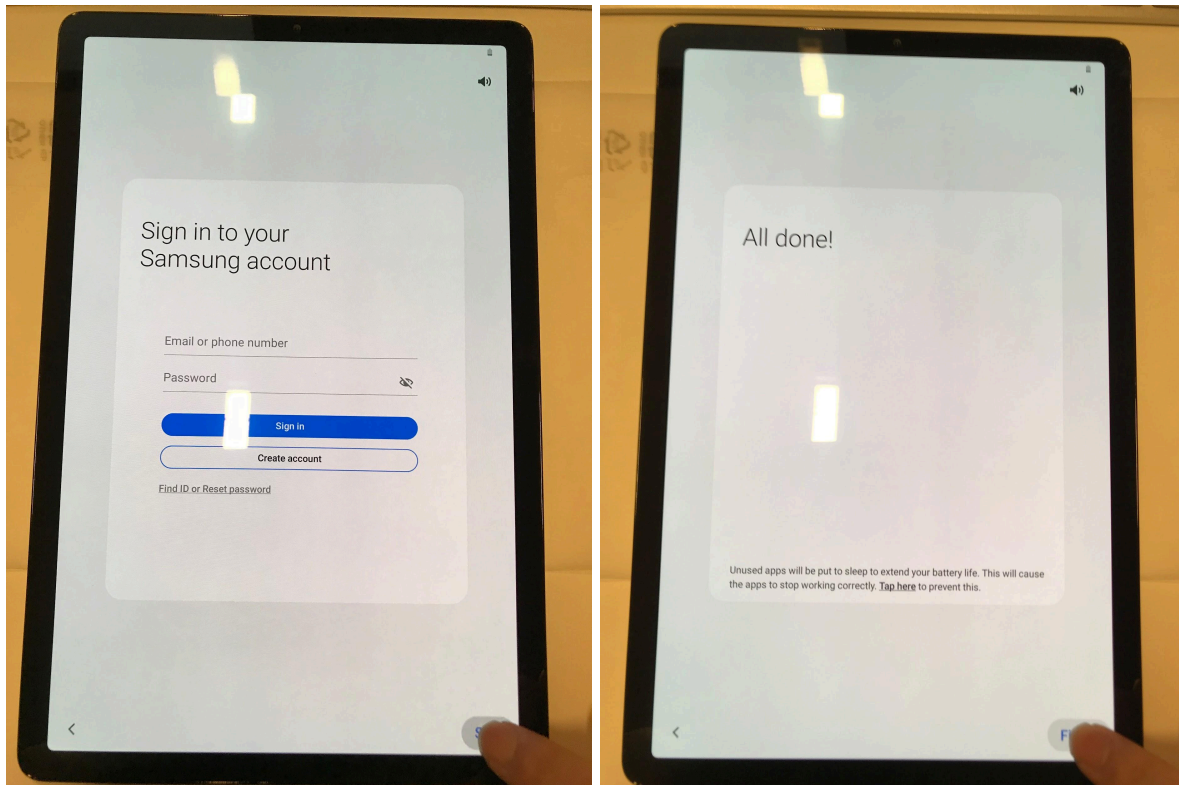
5. Accept the google terms. (Optional: disable the "Send usage and diagnostic data").
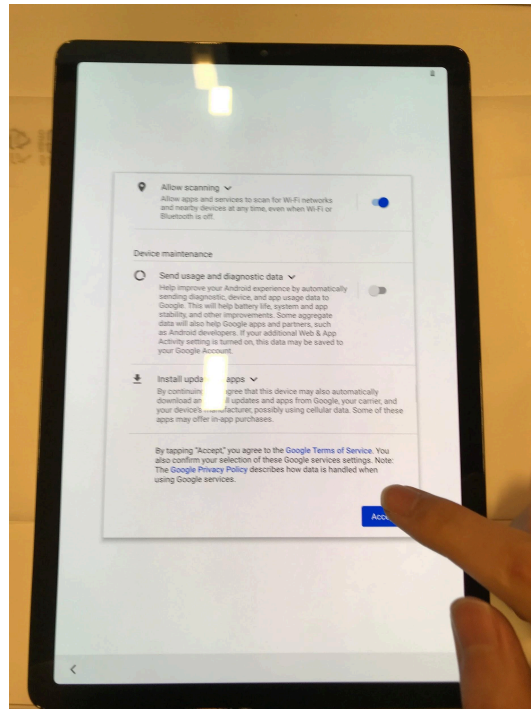
6. Skip the "Protect your tablet". Our tablet needs to be online and unlocked for the participants.

7. Skip logging in to your Samsung account, and finish the initial setup.

Preventing Android 10 updates

1. Put tablet on Airplane mode or turn off WiFi before proceeding. Go to Settings
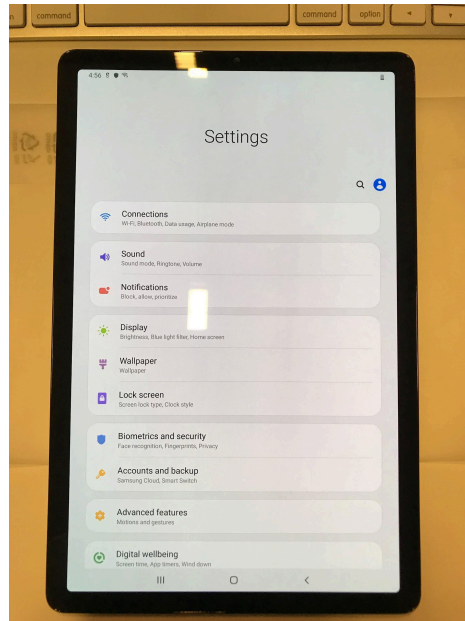
2. **[IMPORTANT]** Disable software automatic updates: Go to "Software update", make sure the "Auto Download over wifi" is disabled.
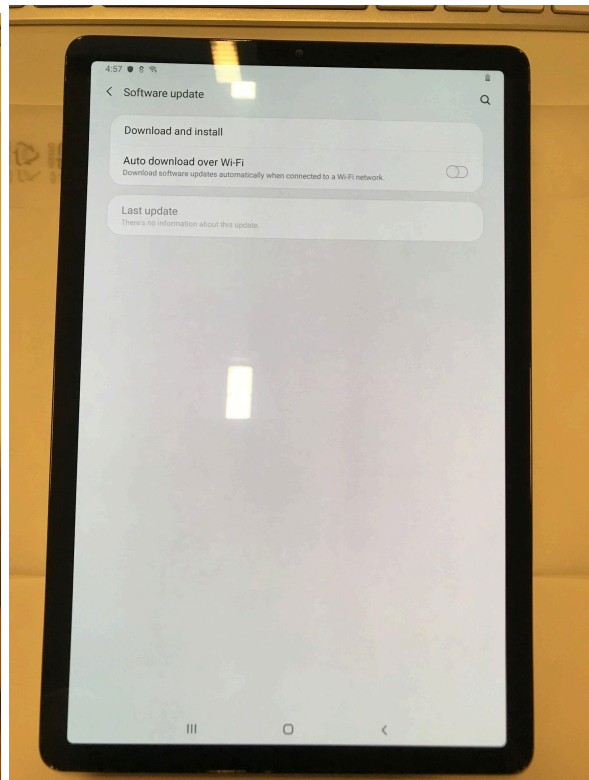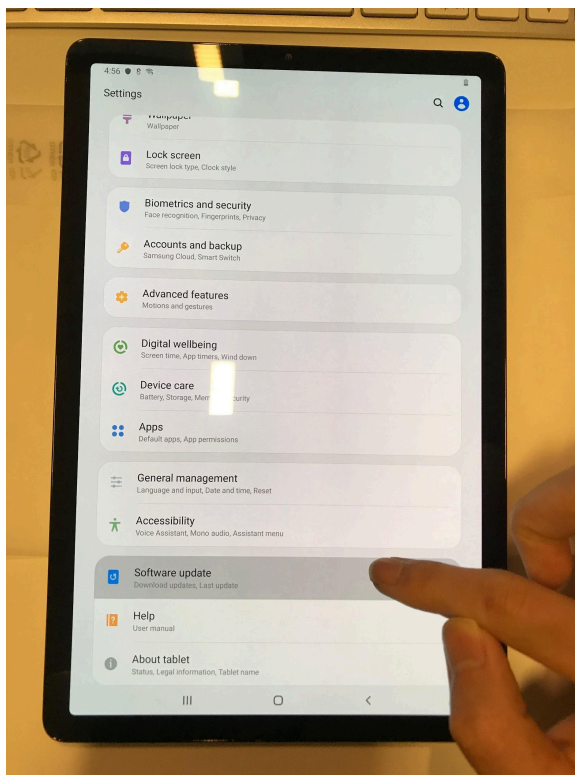
3. **[IMPORTANT]** Disable security auto update:
   a. Go to "Biometrics and Security" in Settings
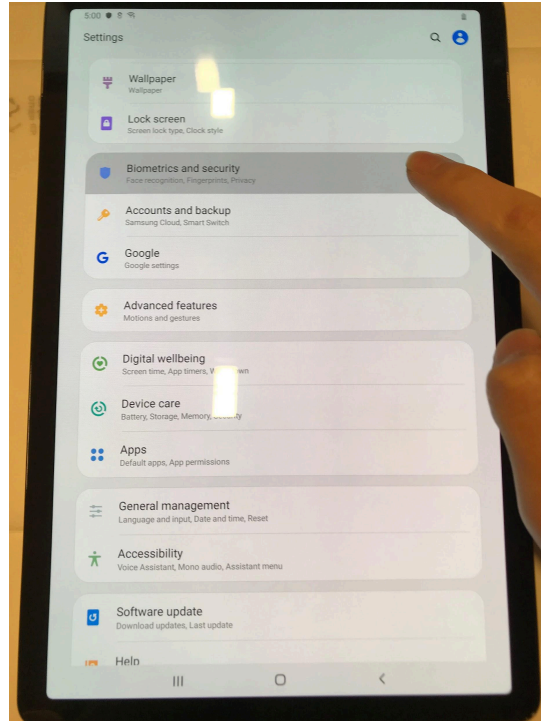
b. Go to "Other security settings", find "Security policy updates".
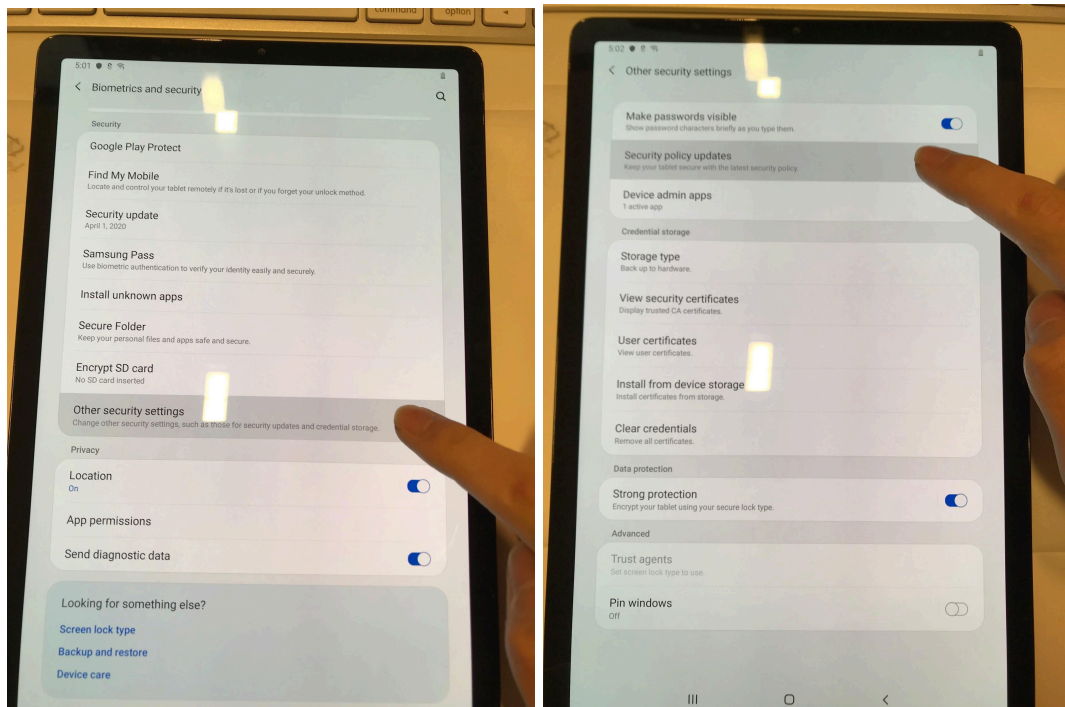
c. Make sure the "Auto update" is disabled:
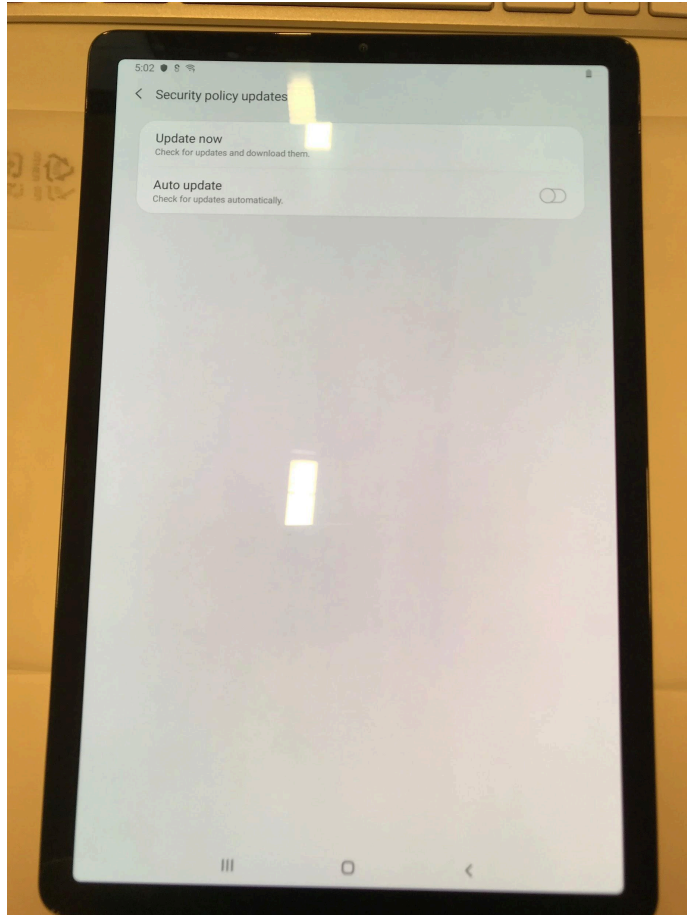
4. **[IMPORTANT]** Turn on the developer mode:
   a. Go to "About tablet" in Settings
   b. Open "Software information".
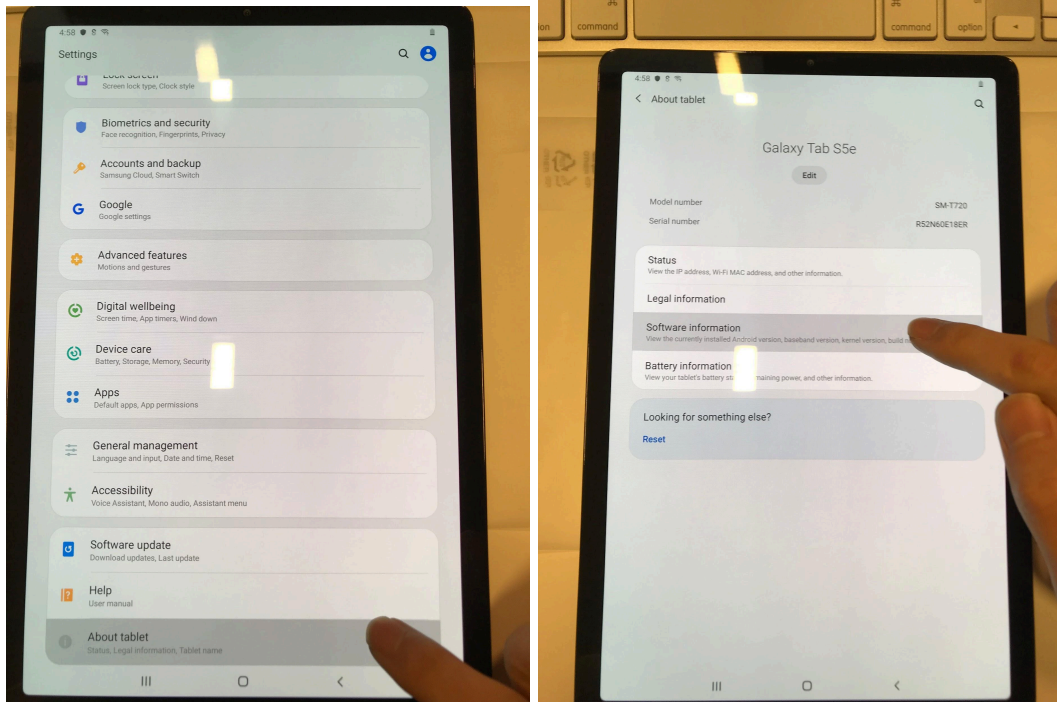
c. Find the "Build number" tab. Tapping on that for 7 times, you'll see a message on the screen says "Developer mode has been turned on"
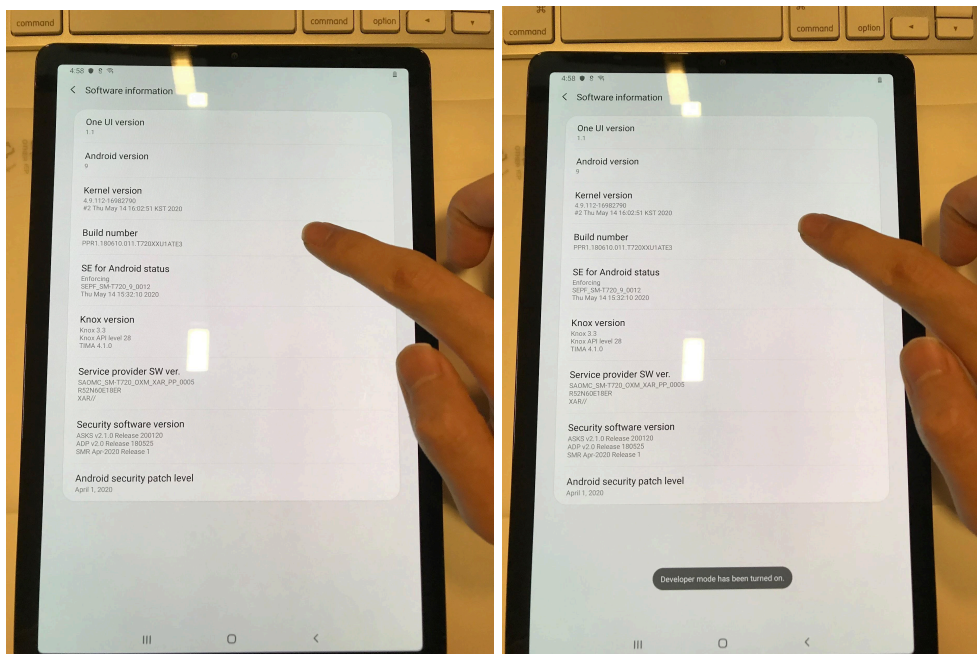
5. Go back to the settings page, now you'll see a new option "Developer options" appeared below the "About tablet" tab. (On the bottom of the image)
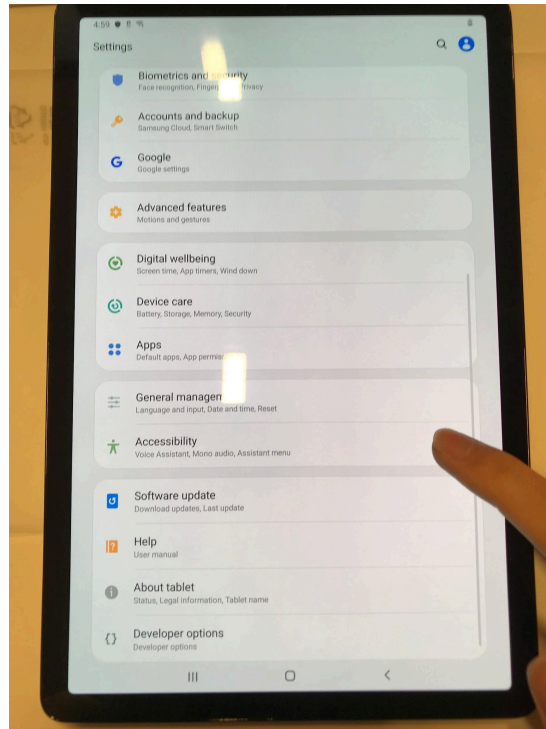
6. **[IMPORTANT]** Disable the "auto update system" in developer options:
    a. Go into "Developer options" in settings
    b. Disable "Auto update system"
    c. [Optional] In "Debugging" section, enable "USB debugging"
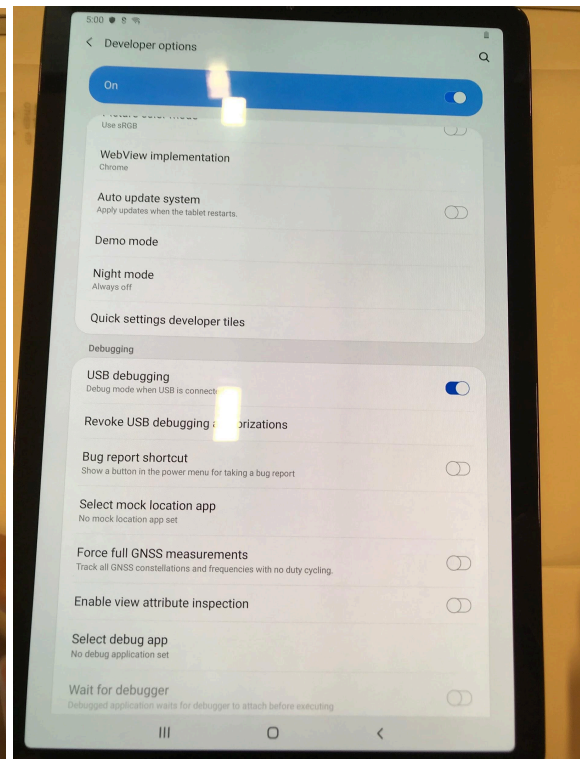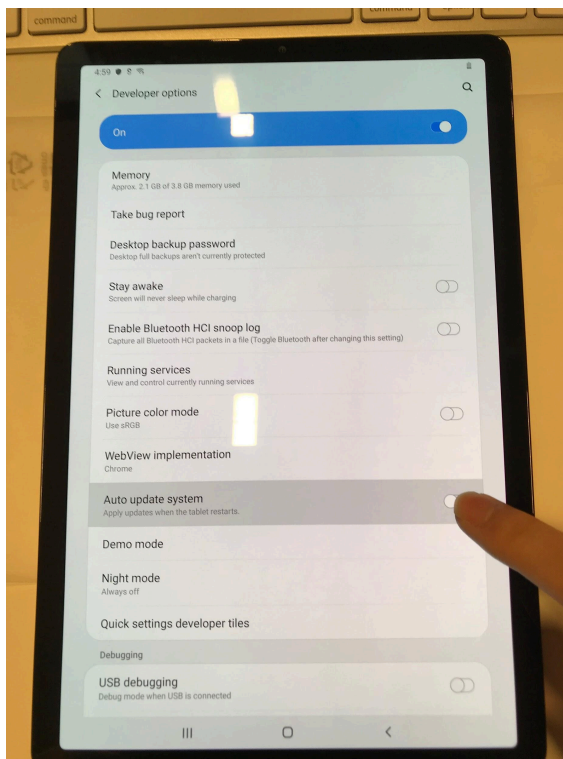
7. Disable the Permission and Notification settings for "Software Update" app
   a. In settings, search for "software update". There might be multiple choices come up, select the one in the picture; or you can try both and see which one displays the permission "Change system settings".
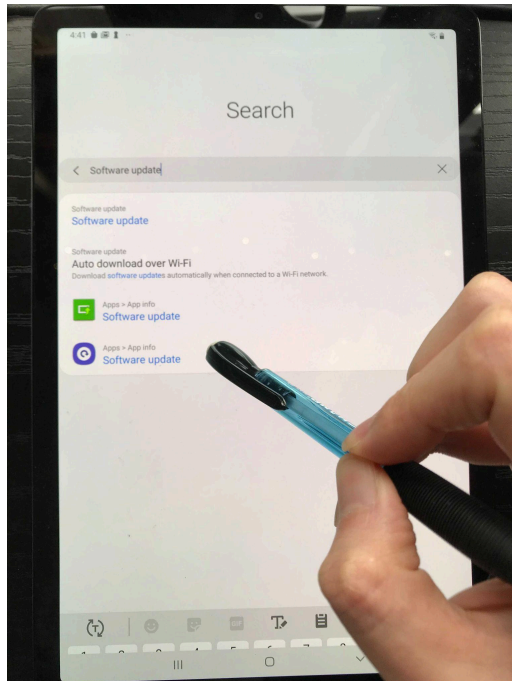
   b. In advanced, find "Change system settings". Revoke this permission.
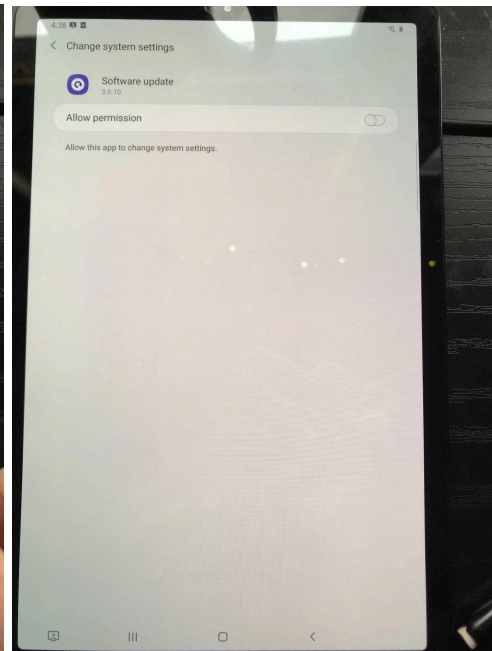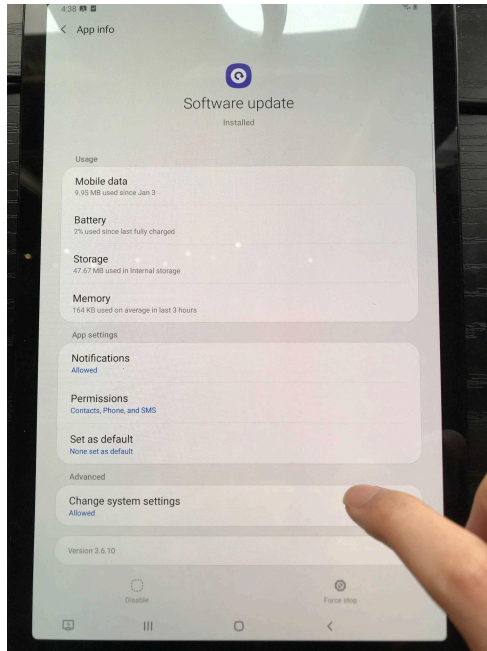
   c. Go back to the app info, and find "App settings > Notifications". Since we cannot revoke this permission for the Software Update app, we can set the notification type as "silent and minimized" to prevent it from popping up.
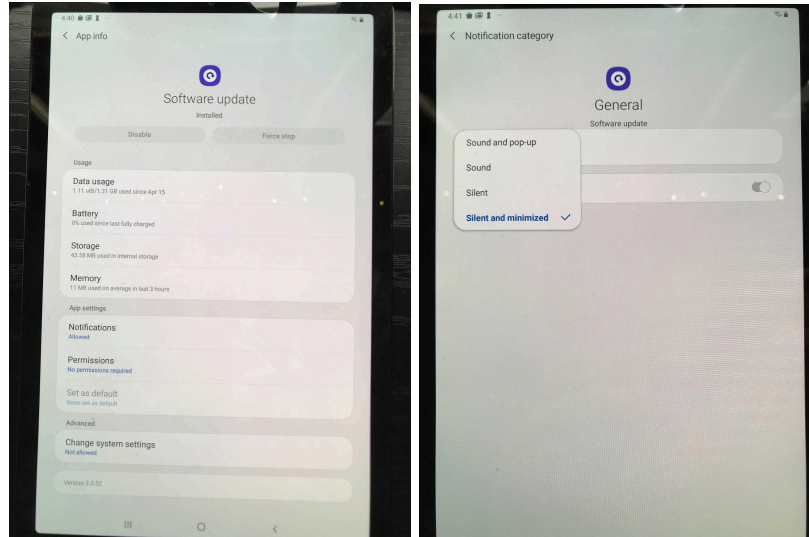
Other Settings

1. Naming of Device

As you can see, each device has one unique device name, like it's shown on the right side of the image above. It has four parts:

1. s02: Unique identifier for all devices in literacy project.
2. n00: Unique identifier for home deployment devices. n01 and n02 are both for school deployment.
3. tab: Identifier for tablet devices.
4. DDD: three digits for uniquely identifying each device. It's consecutive numbers. For instance, home station tablets are "s02-n00-tab-100", "s02-n00-tab-101", "s02-n00-tab-102", ... "s02-n00-tab-106".

Name your device based on this naming convention and make sure the serial identifier is unique.

Change Device name in Settings.

   a. Go to the Settings tab and rename the device. You can do so by scrolling down to the bottom of the Settings and tap on "About tablet", change the name "Galaxy s5e" by tapping on "Edit". Put in the unique identifier for you device following the naming convention, for instance, "s02-n00-tab-107"

2. Change screen saver
   go back to the Settings tab
   a. select "Display"
   b. find "Screen saver" and make sure it is turned on and chosen as "Colors"
   c. In "Screen timeout", select "After 10 minutes of inactivity".
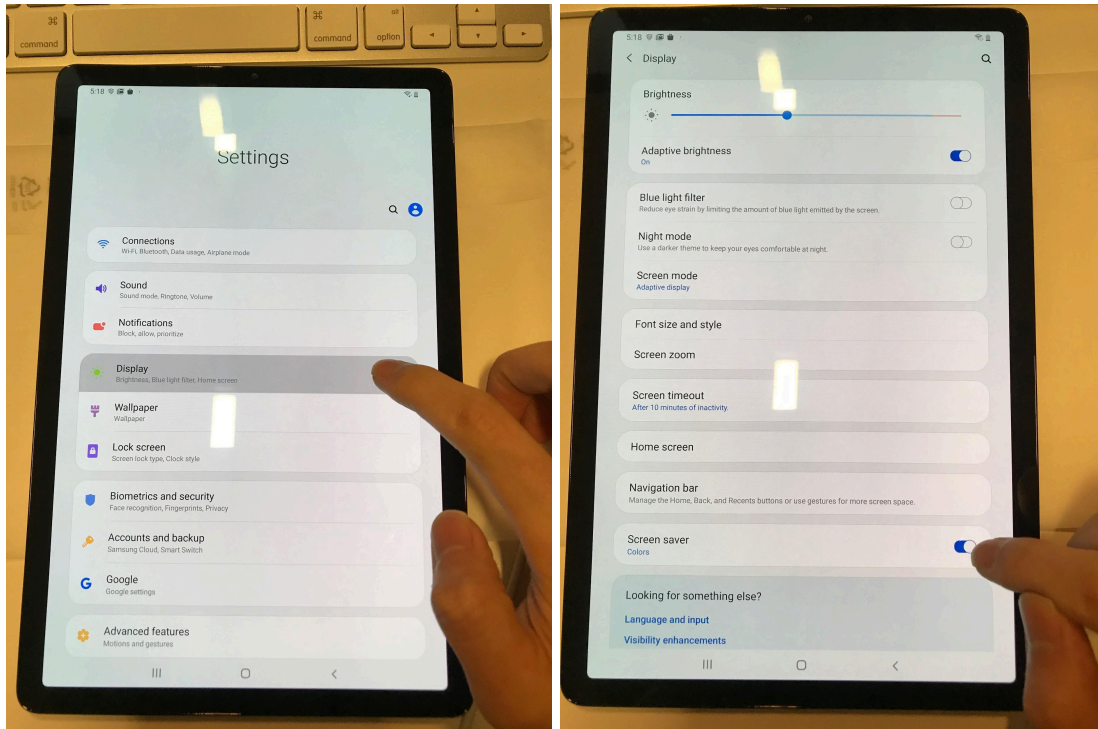
3. Check Android version & Connect to WiFi

(The reason why we didn't connect WiFi is because we want to prevent the tablet automatically updating itself to Android 10. Before we open the WiFi, we should check if the current tablet is actually in Android 9.)

Checking Android Version:
  a. Go to Settings
  b. Select "About tablet"
  c. Go to "Software information", and check "Android version" is 9.

Connect the tablet to a local network.
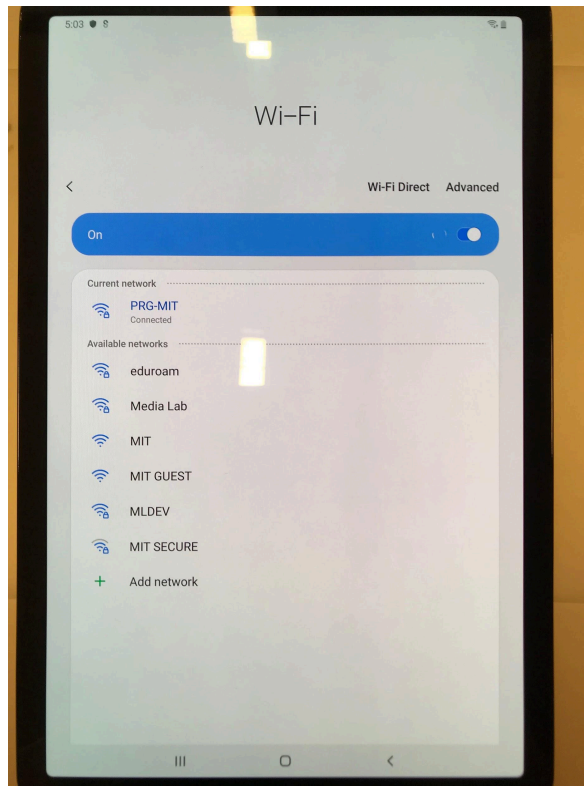
Scalefusion Setup

1. Go to "Play Store" on the tablet
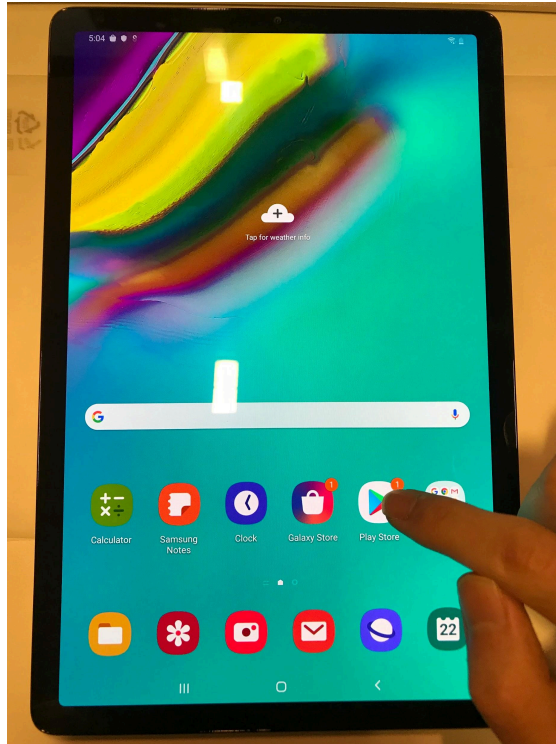
2. Log in through "robots.deployment@gmail.com". The password is in the group password page.
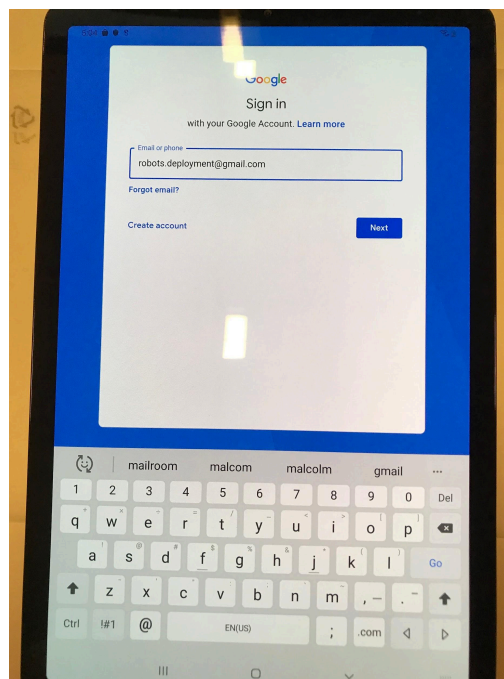
3. In Google Play Store, search for the app "Scalefusion", and install it. (If prompted for an account setup box, choose skip and re-select install.)
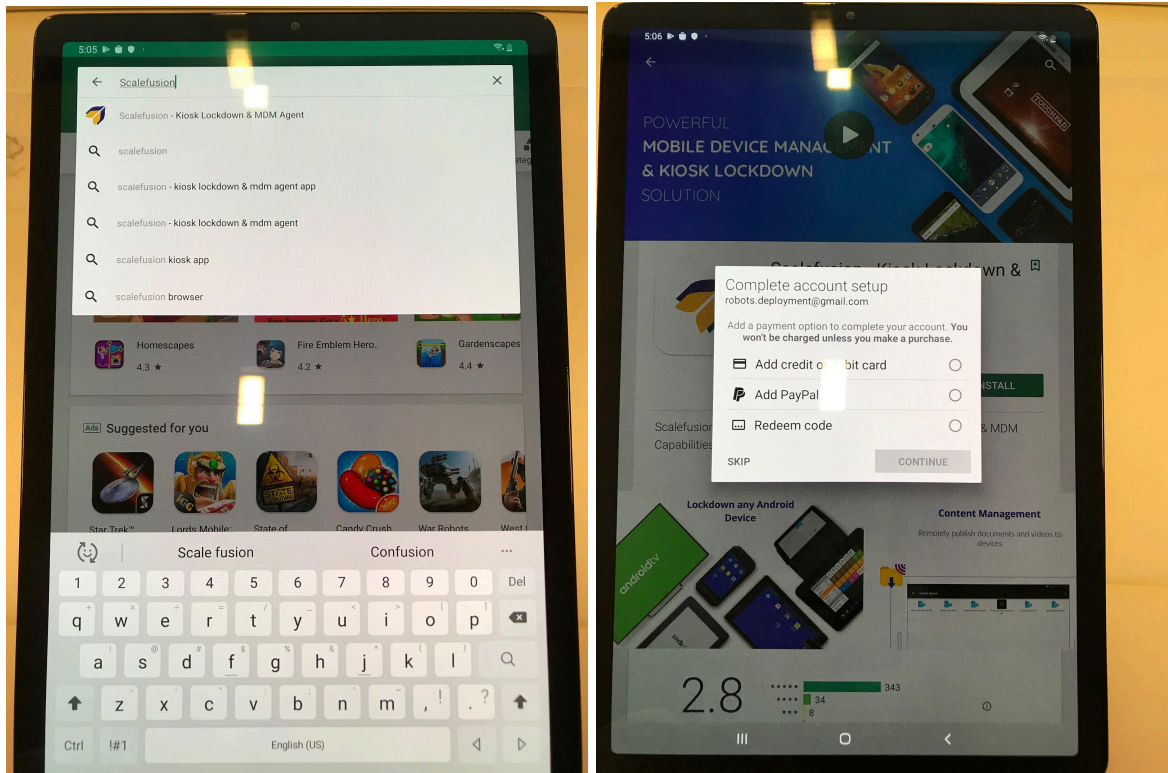
4. Open Scalefusion app, it will prompt you to enroll the device. Choose "Other enrollment options", and select "License Key". If you don't know where to find the license key, please go to the Section "Scalefusion KIOSK License" section.
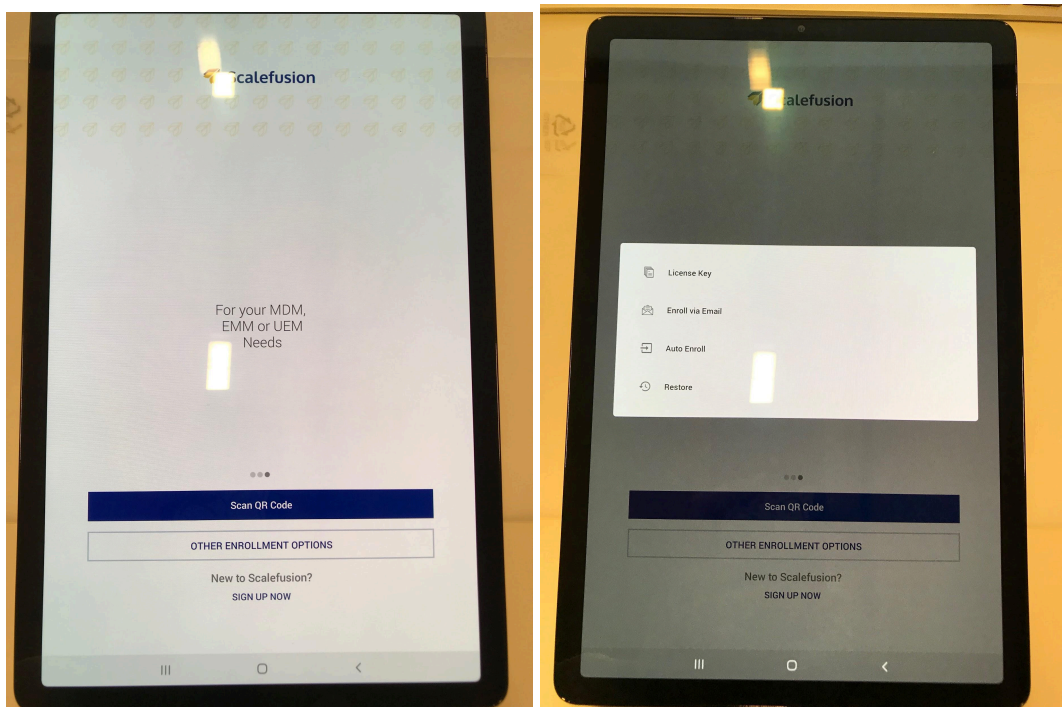
5. After enrollment, it will ask about your device name. Please put in the device name you came up with this device in the earlier Settings section. (It's in a format of "s02-n00-tab-DDD").
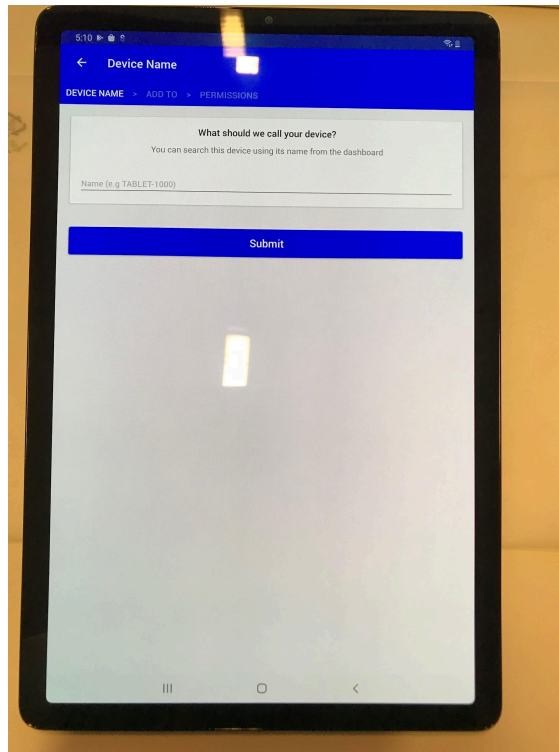
6. Device groups will automatically enroll your device to a group, where you can find the groups in Scalefuion Web Dashboard -> Devices -> Device Groups. For Georgia home deployment, the devices are put in the "Home-Prep" group, and the code is "**WHRA2**". You can leave this blank if you are not sure.

NOTE: If you didn't input the device group, it will take you to a "Device profile" question, where you can select "HOME-PREP" profile if uncertain.
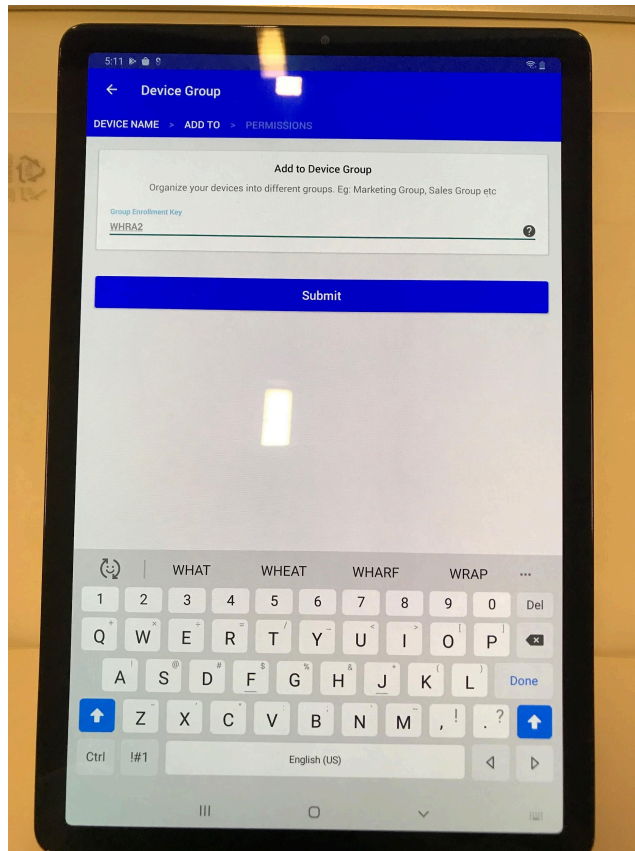
7. In the Permission section, grant all the permissions, and proceed.
    a. For some permissions, you'll need to agree with the terms and conditions.
    b. For some permissions, it will take you to a list of apps, find Scalefusion in the list and enable the permission for it.
    c. For the last one, "Disable Assist App", tap on "Device assistance app" and change to "None" from the default "Google".
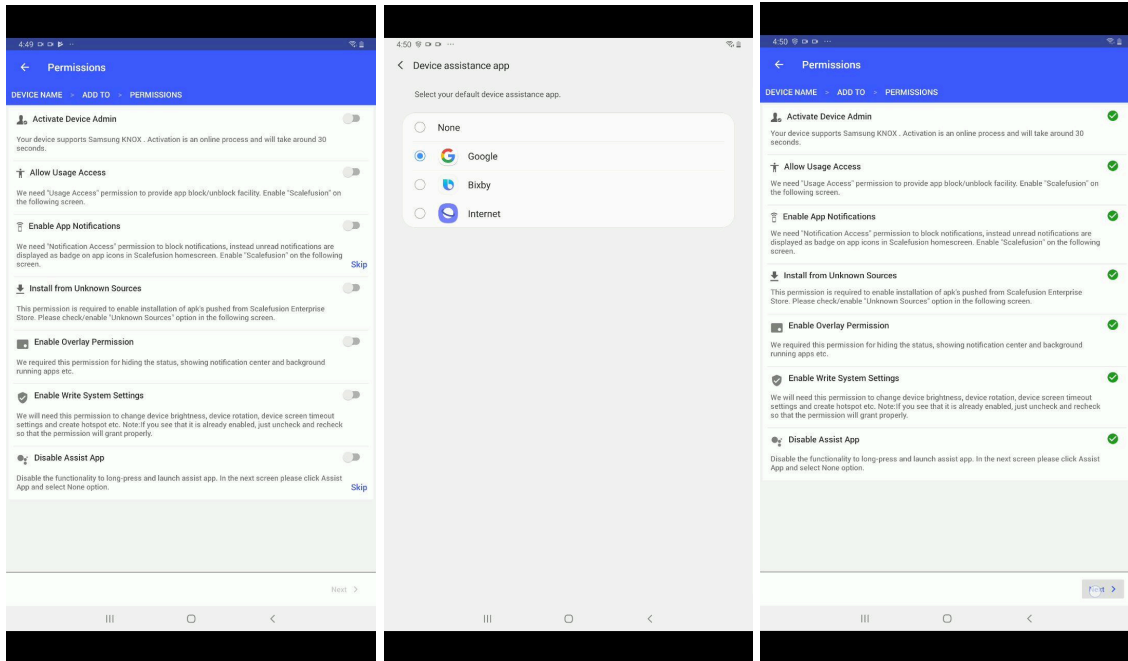
8. After the permission, your Scalefusion setup is completed. You'll see some apps are in the process of downloading, please wait for them to finish downloading.
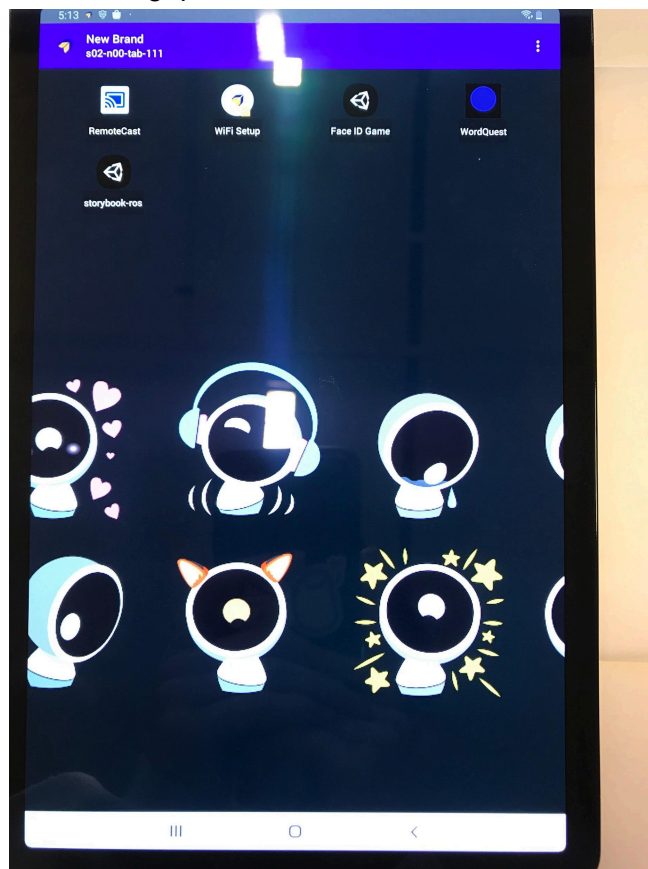
9. RemoteCast Setup: RemoteCast is an app that allows you to remotely access the tablet from the web dashboard without the user's attendance.

a. Open RemoteCast app
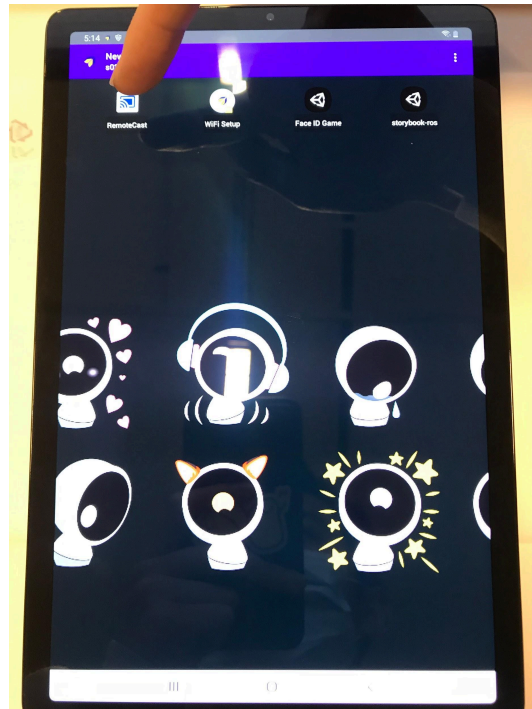
b. You'll see three permissions on the App's page, among which the first two are grantable. Please grant the first two permissions.
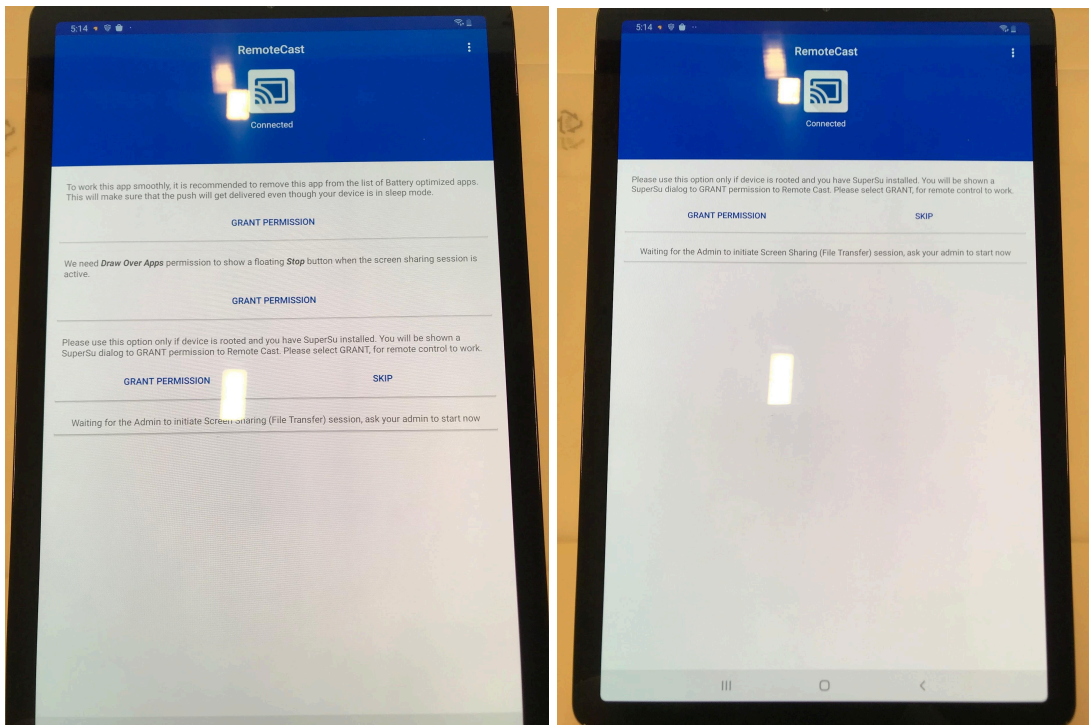
10. Testing RemoteCast. This step, you'll go to the Scalefusion Dashboard to request an remote access session to test out the RemoteCast App, as well as grant user's permission to the Dashboard.

    a. Go the Scalefusion web Dashboard:
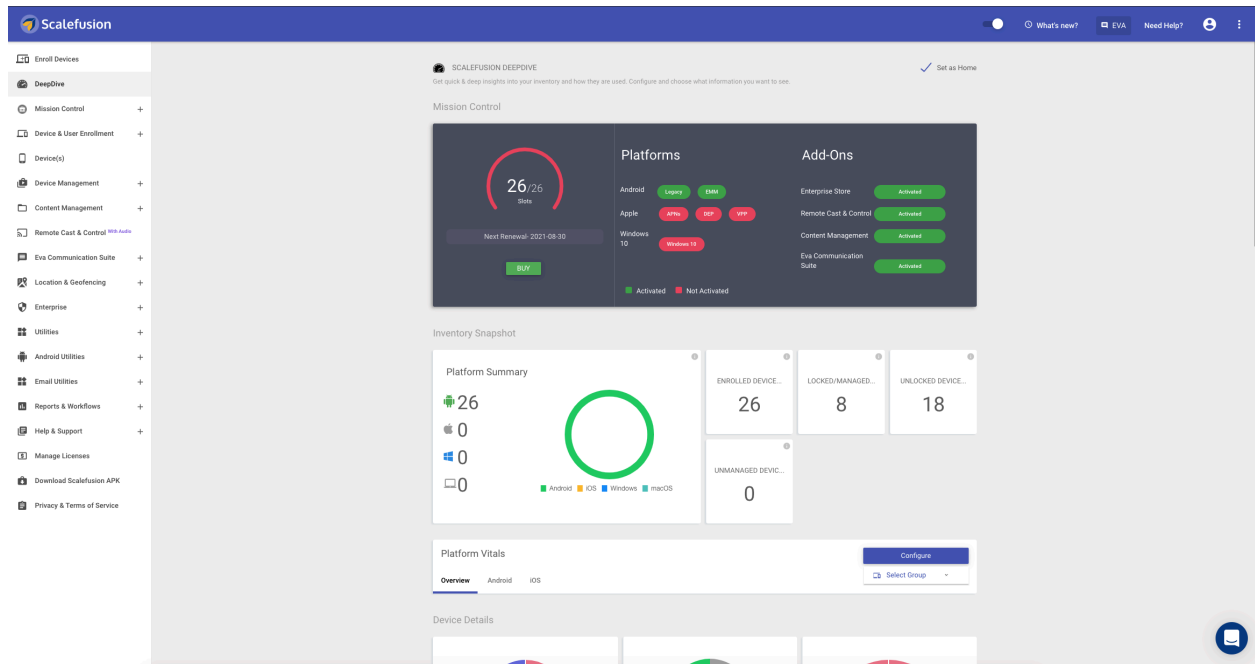
    b. On the left menu bar, you'll see "Remote Cast & Control". Open it will show you a list of devices currently with an active Scalefusion License.
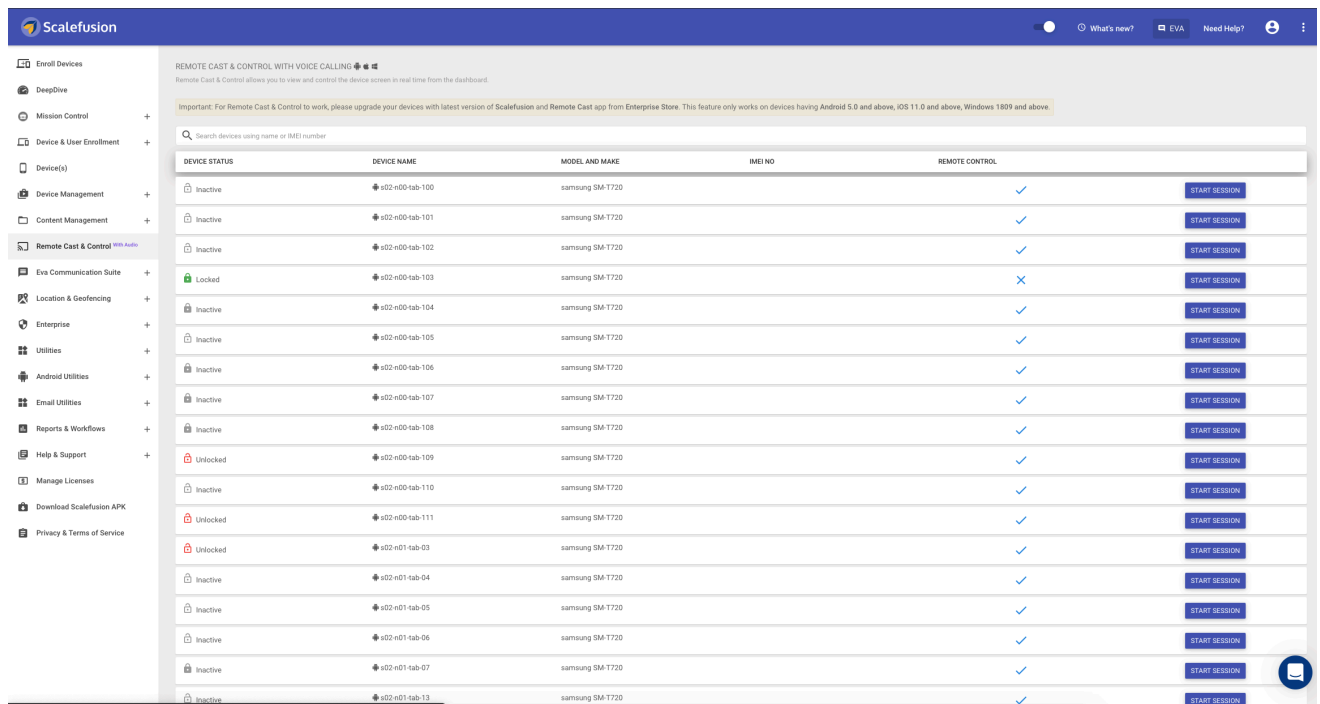
    c. Find your device name, and click on the "Start Session" on the right side of the page. You'll see the following page.
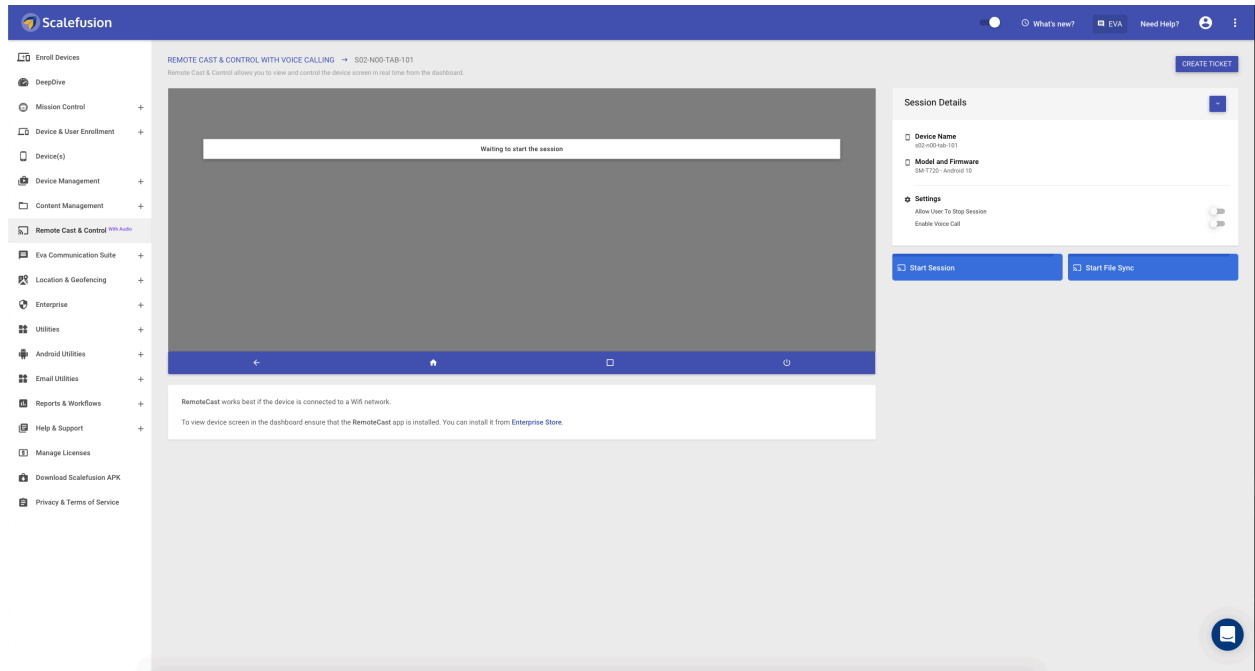
d. Use "Start Session" will initiate a request to your device's RemoteCast App. It might take one or two minutes for the first time.

e. **[IMPORTANT]** Because this is the first session, you'll see a request on your tablet's RemoteCast App once you initiate the session from the Webpage. **Make sure to select the box "Don't show again" before you click on "Start now"!**
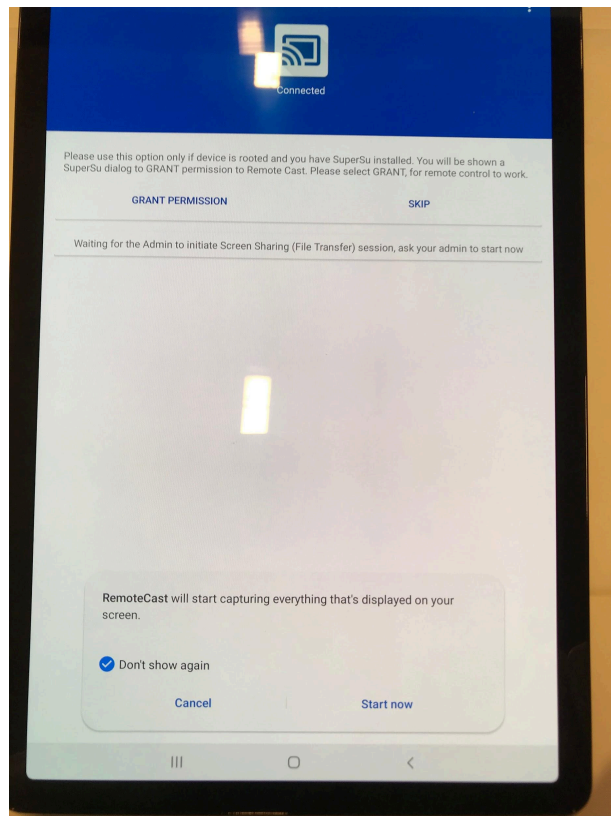
f. Once you select "start now" on the tablet, your webpage will show you a view of what your tablet currently looks like.
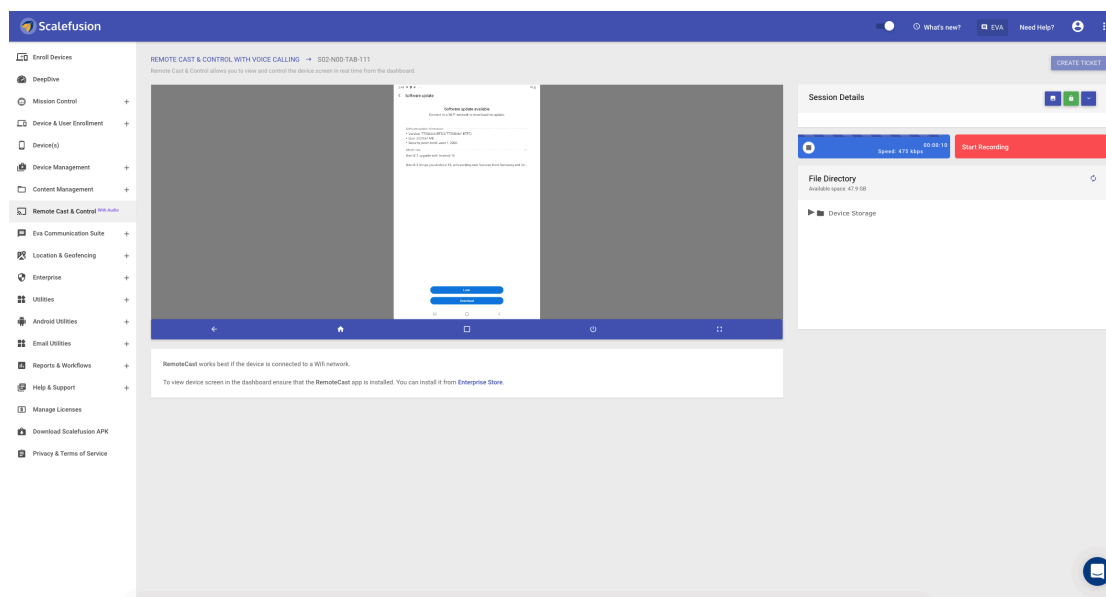
11. Exit Scalefusion:
   After testing with RemoteCast, you might be forward to the Scalefusion App page. If so, follow the instructions to exit from scalefusion:
   a. Click on the three dots on the right top of the screen, and select Settings.
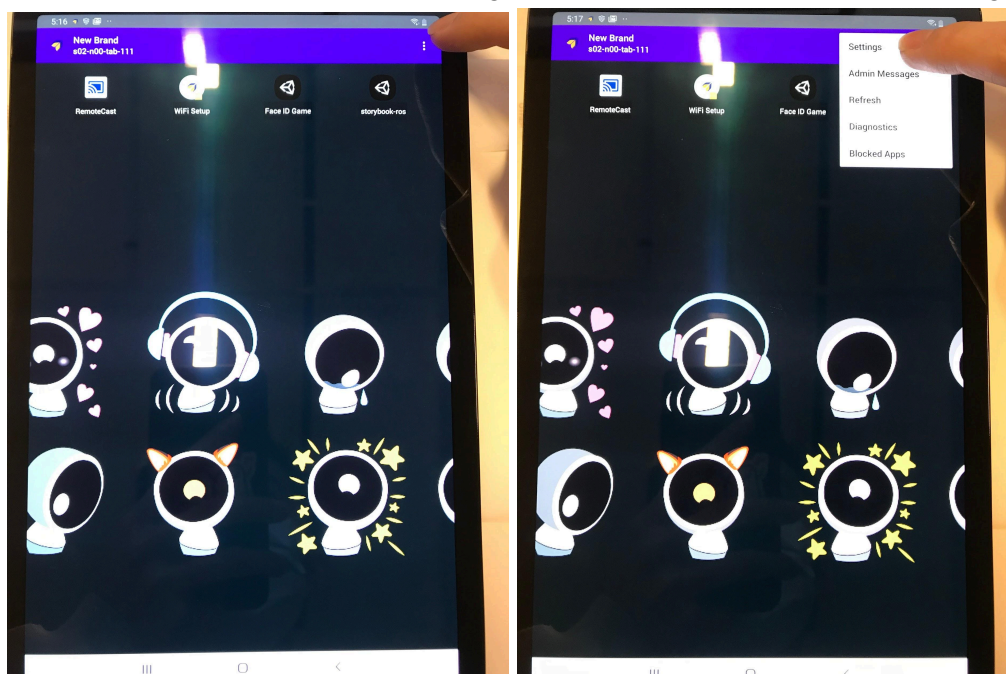
b. When the app asks you for the passcode, put in the default code and proceed. (2323 as default). Then, in the Settings page, select "Exit Scalefusion"
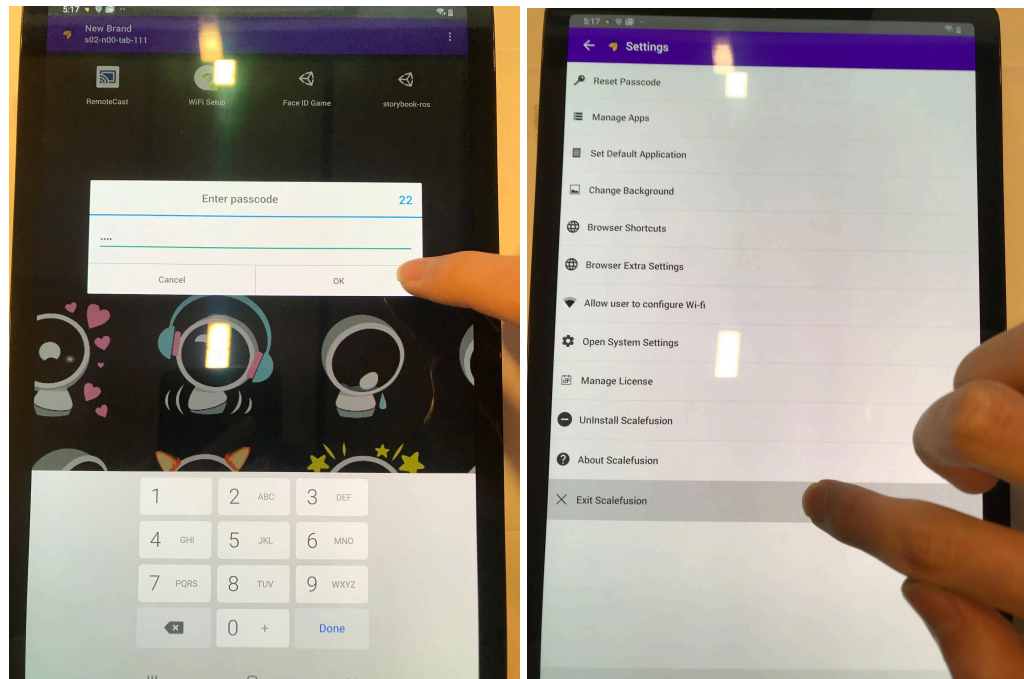
If you are not in the Scalefusion App view, you can go to the Scalefusion Web Dashboard to unlock your device.

a. Go to Dashboard
b. On the left menu, select "Devices"
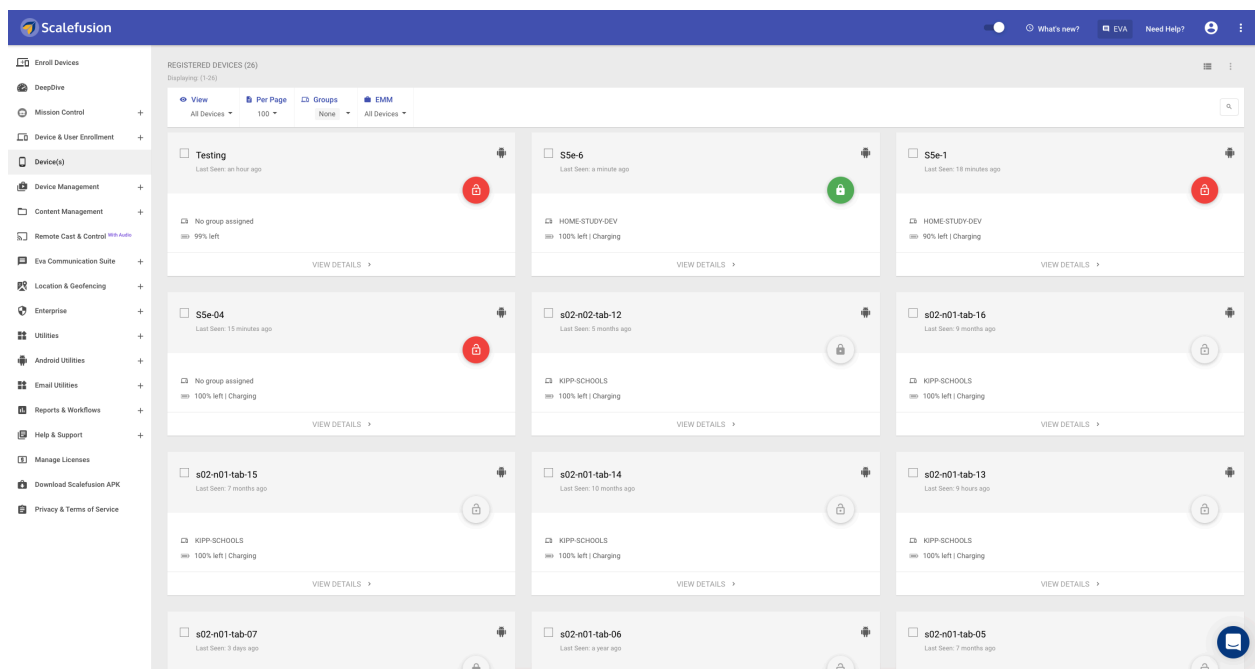
c. Find your own device, and select "View Details".
d. On your device page, find the "Settings" Icon on the top right of your device card, and choose "Unlock Device"
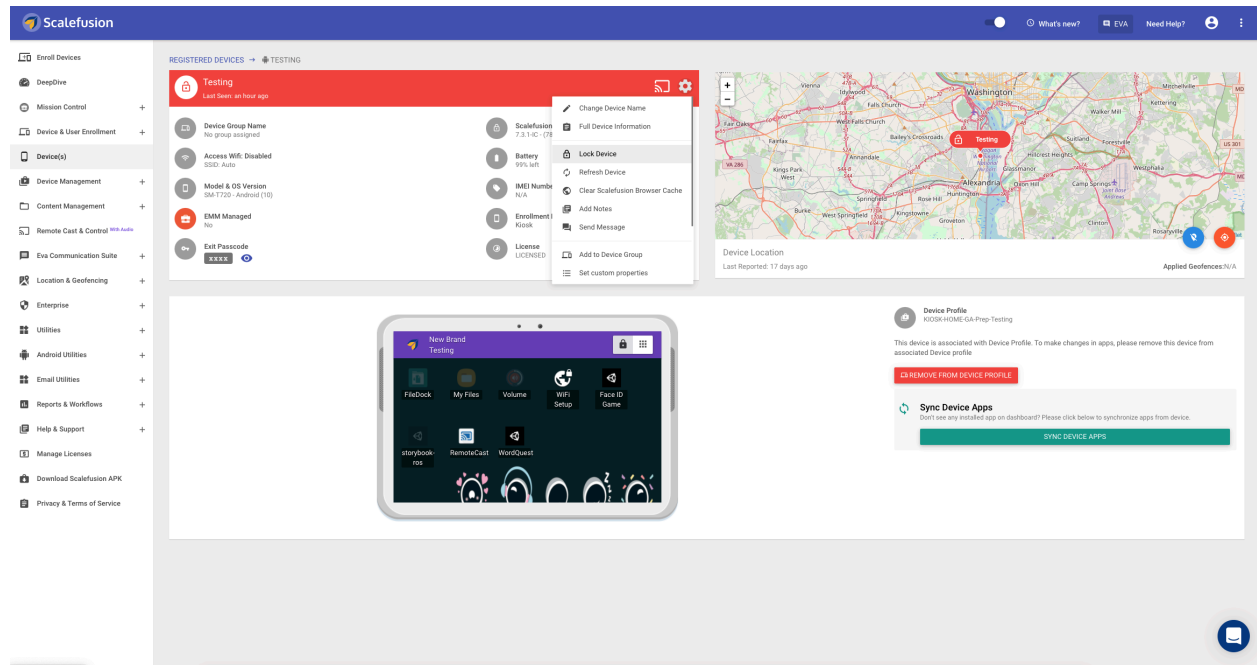
Scalefusion KIOSK License

Scalefusion Login

The Scalefusion web page is [here](), go to the website and login with the account and password from the group's lastpass. After you login, go to the dashboard if you are not already there.

Scalefusion dashboard

Dashboard looks like the image below. In the Devices tab, you can see a list of devices that's currently associated with a valid license. One license can only be applied to one tablet. It allows your tablet to enter KIOSK mode and provide you many remote control options from the dashboard.

By clicking on the profile on the top right corner, you are able to see the available licenses in the account and how many are applied. To do so, click on Manage License.

On the page below, you'll see meta information of how licenses are used. For more details of which device is using a license, click on the license group and enter the detail page.

On this details page, you can see many information about which devices are using a license from this license group, and how many licenses are left in this group for you to add new devices. The **License Code** on this is important, we can input the code on the tablet (inside of the Scalefusion App) and activate the device with one license. To view the code, simple click on the "eye" next to the encrypted area and copy it.

Checklist and Software Setups

1. RemoteCast Function Check:
   a. Exit Scalefusion KIOSK mode, and make sure RemoteCast app is closed. Initiate a Remote Control session from the web dashboard, and see if the RemoteCast app will start itself automatically. (might take a minute, but it shouldn't fail)

b. Restart the tablet, and invoke a Remote Control session from the web dashboard directly. The RemoteCast app should start itself automatically and start the session without the user attending.
2. Roscore Connection Check:
   a. Have a roscore running on the same network
   b. Go to Firebase, and change your entry of the ROSIP node to the testing tablet's name and your roscore IP
   c. Open the FaceID(It's Me!) App on your tablet, and make sure it can proceed to a page with profiles. (If it's stuck on the Connecting Scene, this test is failed.)
3. Go to google play store, open Play Protect, and in settings, turn the protection off
4. (Optional)Storybook Asset prep
   The storybook requires 600MB assets downloaded from the Dropbox before it starts the game play. It's automatically downloaded on the start of the app. Once you pass the previous roscore check, close the "It's Me!" App, and open the storybook. The storybook should be passing the connection screen and proceed to the downloading scene. It might take a few minutes for it to finish downloading. Once it finishes downloading, you can turn off the app.
   An alternative is to download the assets to your computer, and use `adb push /PATH/TO/ASSETS/ON/YOUR/COMPUTER /sdcard/`

Dropbox Sync Setup

1. Open google store, and search for DropSync App. Download and install.
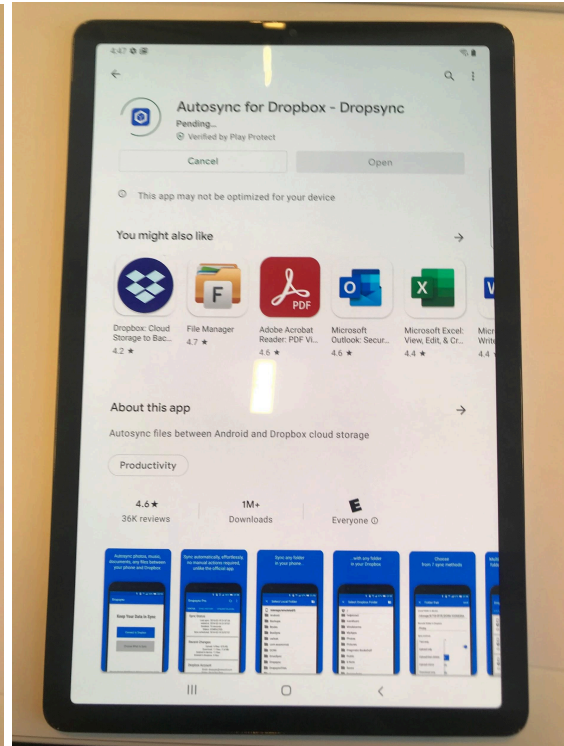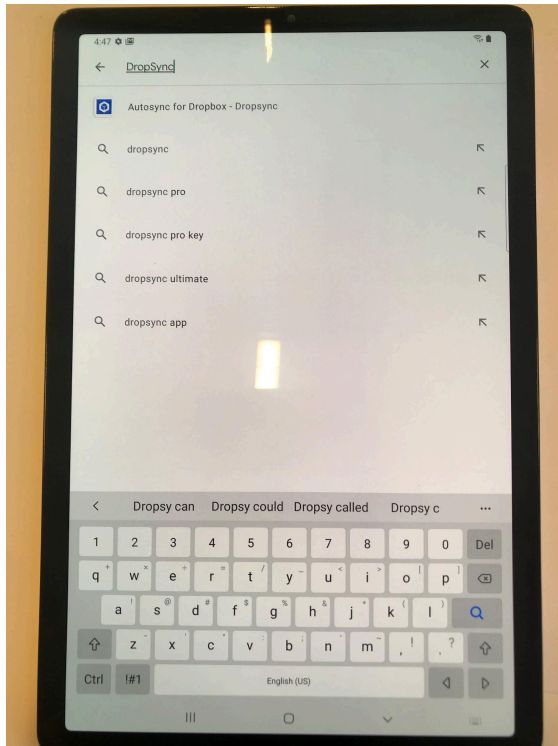
2. Open the app
   a. Choose "Connect to Dropbox" option
   b. Then, it will take you to sign-in page. Choose "Sign in with google" option
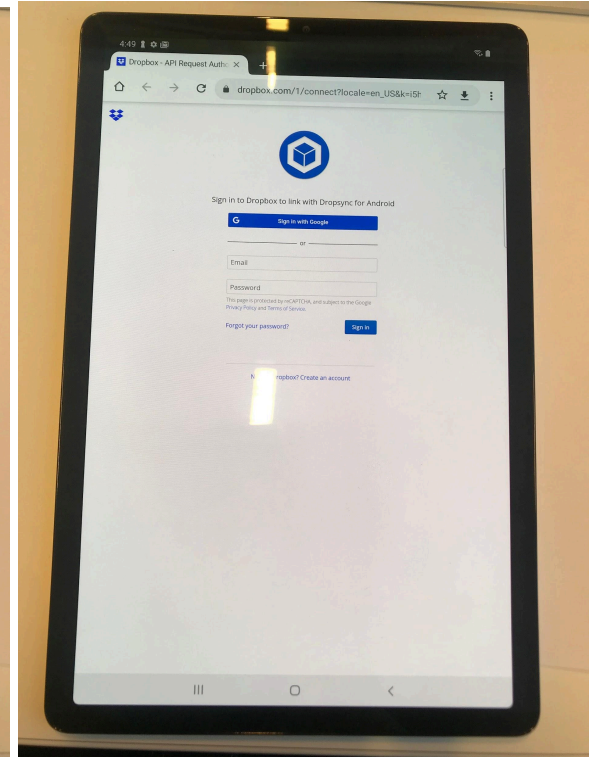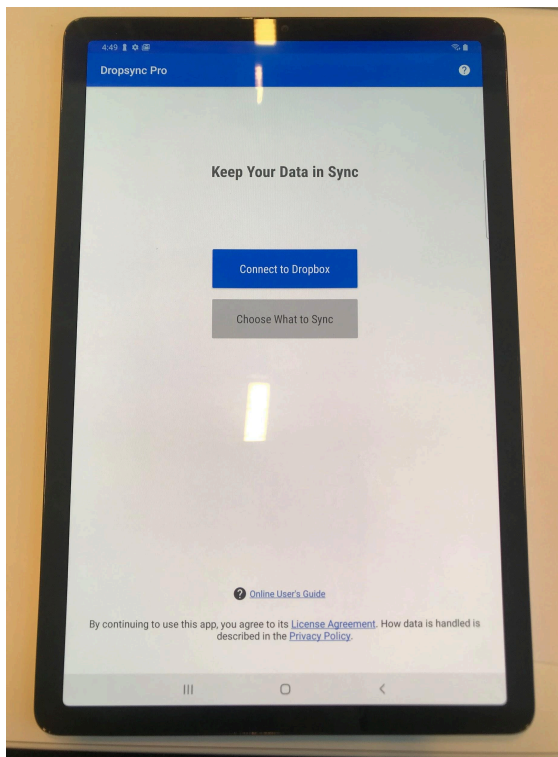
   c. User "robots.deployment@gmail.com" to sign-in, the password is on group lastpass page

d. Once signed in, the app will prompt you to authenticate access to the content in Dropbox account. Use "Allow" to proceed.
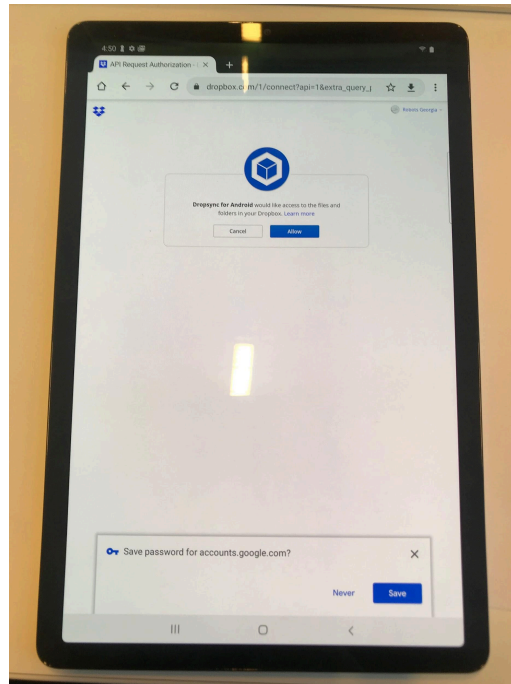
3. Now, we are back to the Dropsync app. Do the following steps to setup the Syncing:
   a. Choose "Choose What to Sync" option in the app.
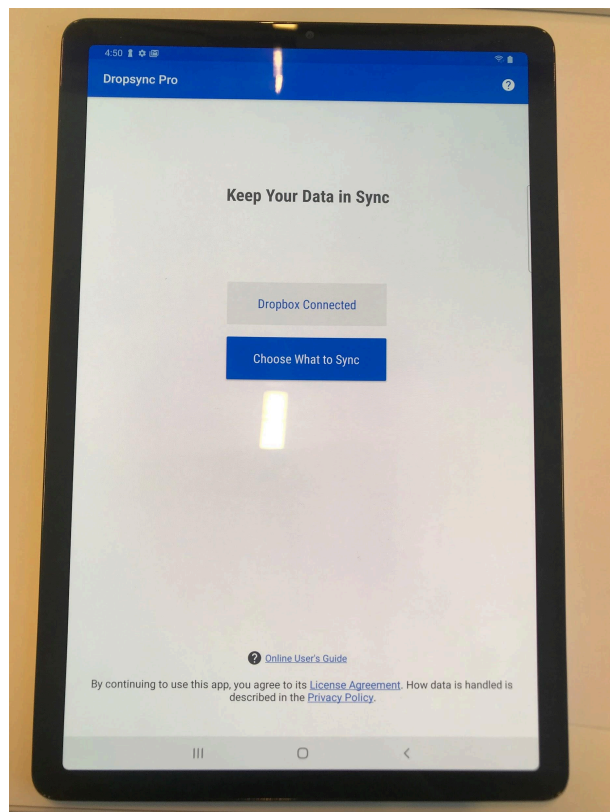
   b. Authorize the data access right.
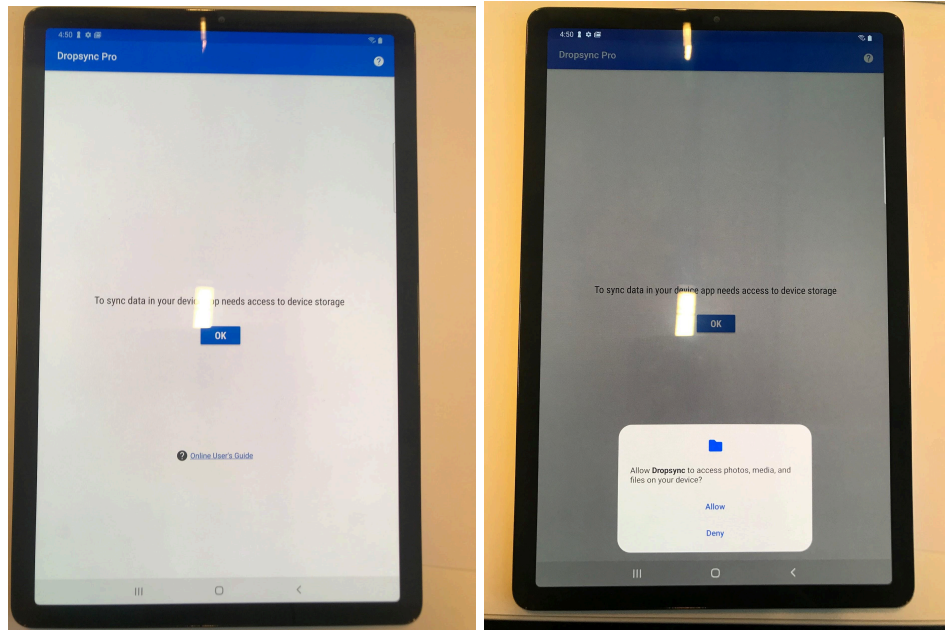
c. On the Folder Pairing scene, choose "Let me create my own folder". This will allow you to set up your customized location and which part of the content to sync.
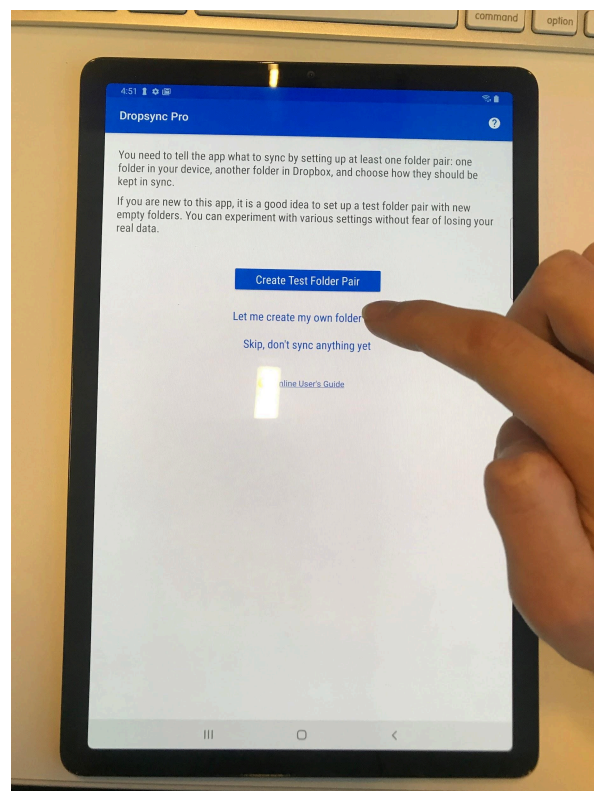
d. The first location to select is the Dropbox folder. Navigate to the correct folder then choose "SELECT" on the bottom right. Here we need to navigate to "/Apps/PRGInteractiveStorybook". You can see the current folder on the top.
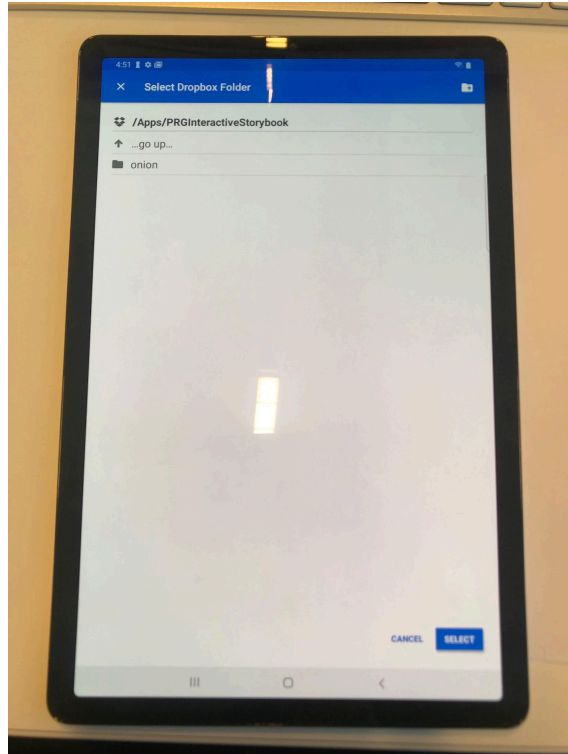
e. Then, you can choose a location on the tablet that you want the content to be synced to. The default is "/storage/emulated/0". On the screen, select "StorybookDropboxCache" folder, and then click on "SELECT" on the bottom right. If "StorybookDropboxCache" folder is not listed as an option, you can create a new folder by clicking on the folder icon on the top right.
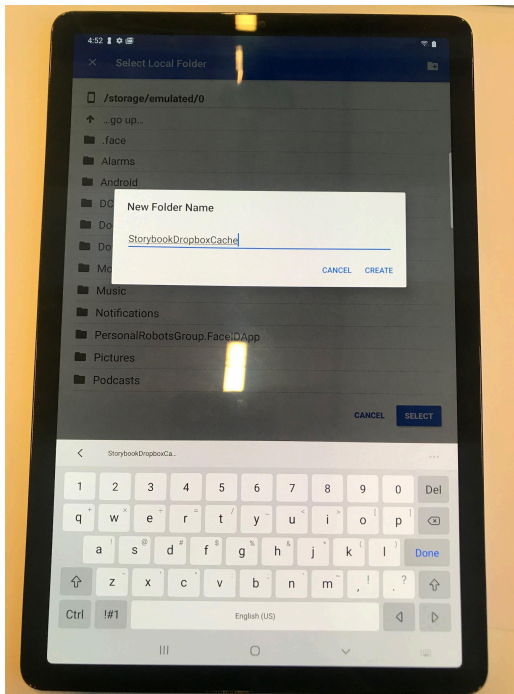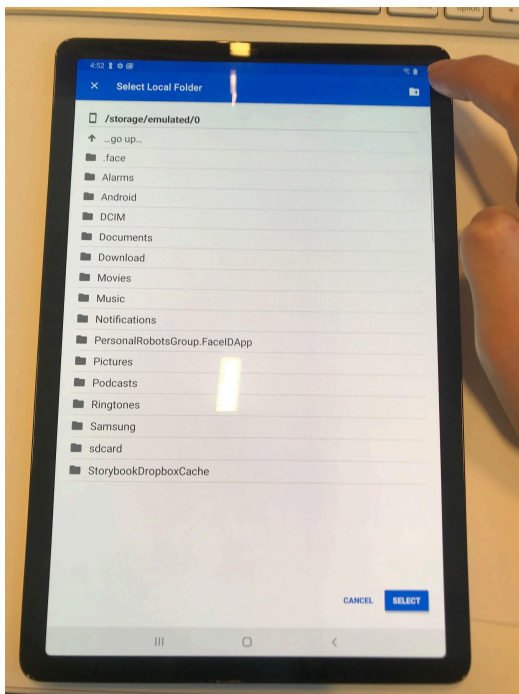
f. Click on "SELECT" once you are in the correct folder path, you can check the path on the top (doesn't matter if it is empty or not). **DO NOT CLICK SAVE YET!**
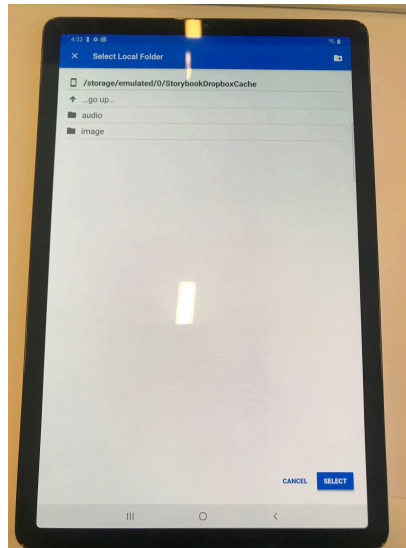
g. Once set the Remote folder in Dropbox and Local folder in device, on the "Folder Pair" page, select the "Sync method" as "Download mirror". This will make sure the local version is an exact mirror from what's in dropbox folder.
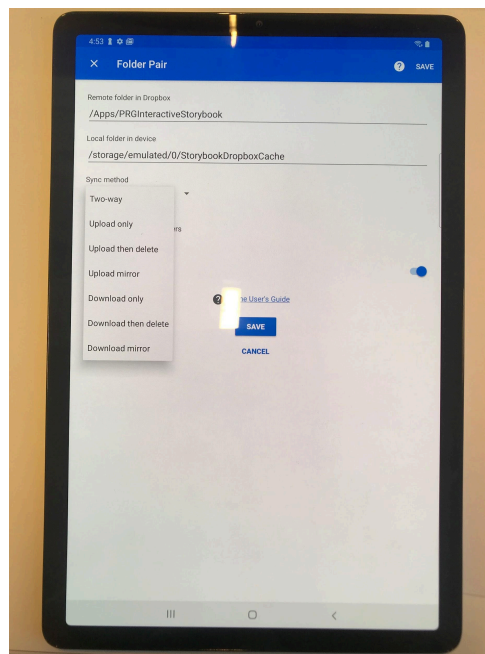
h. After the previous steps, you should see the following screen. Then "Save".
    ● "/Apps/PRGInteractiveStorybook" as folder in Dropbox
    ● "/storage/emulated/0/StorybookDropboxCache" as folder in device
    ● Sync method as "Download mirror"
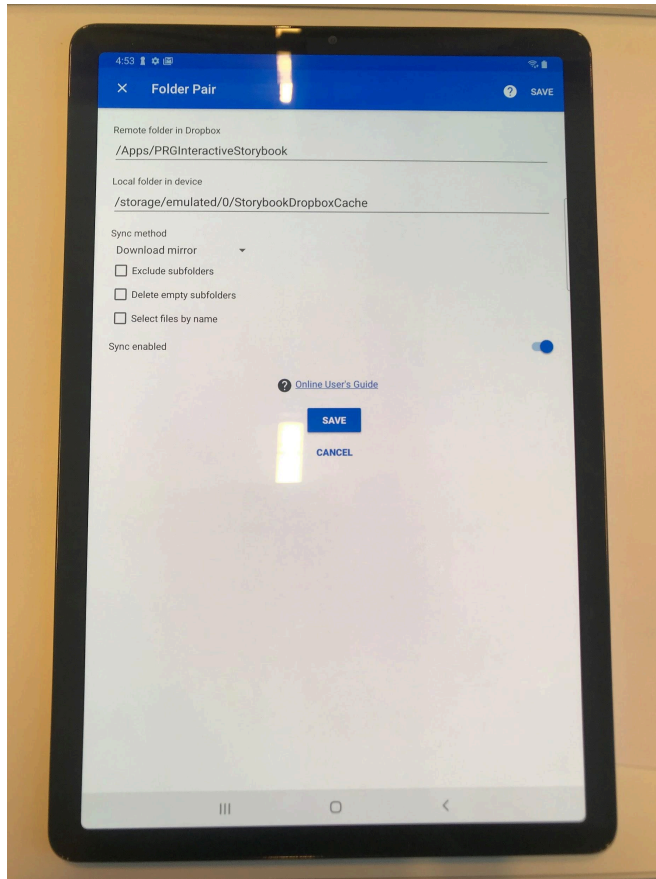
i. Then, you'll be taken to the main Status page, where you can see the files are syncing. The "Status" in "Sync Status" section shows "RUNNING". You can leave the tablet on the wifi now, because the app can keep the syncing in the background.
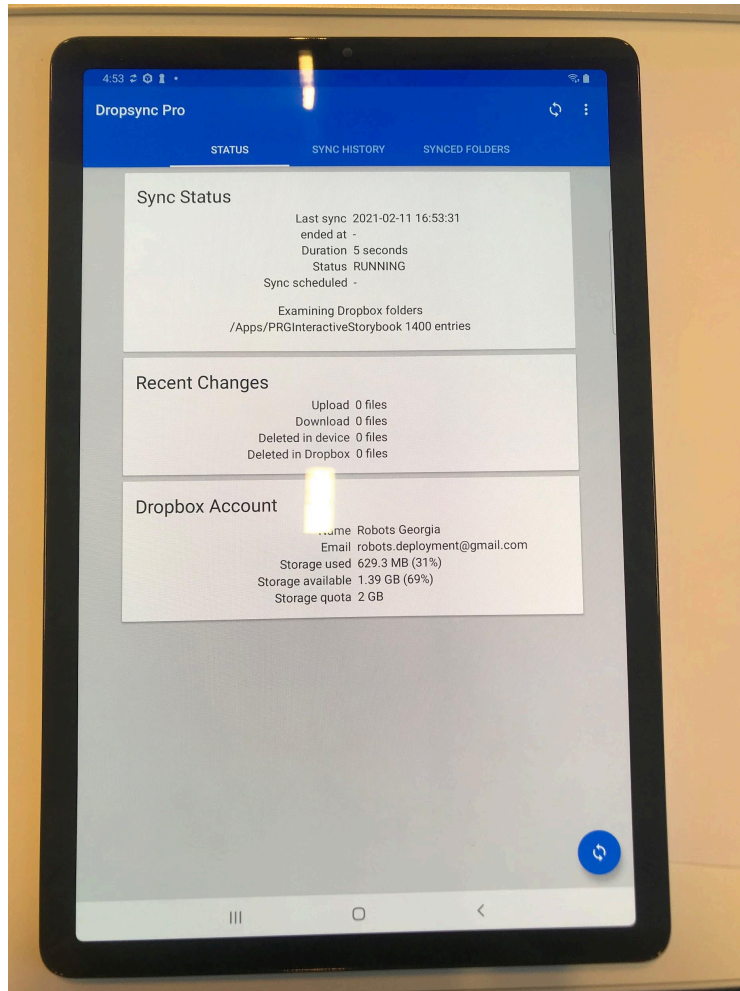
Dropsync Pro

Sync Status

Last sync	2021-02-11 16:53:31
ended at	-
Duration	5 seconds
Status	RUNNING
Sync scheduled	-

Examining Dropbox folders
/Apps/PRGInteractiveStorybook 1400 entries

Recent Changes

Upload	0 files
Download	0 files
Deleted in device	0 files
Deleted in Dropbox	0 files

Dropbox Account

Name	Robots Georgia
Email	robots.deployment@gmail.com
Storage used	629.3 MB (31%)
Storage available	1.39 GB (69%)
Storage quota	2 GB

Initial preparation

1. Having one pre-prepared tablet by your side for data transferring, make sure your prototype tablet is connected to your wifi before turning on the new tablet. (In this example, the pink s02-n00-tab-106 is the pre-prepared one)

2. Turn on your new tablet, it will look like this:

3. Follow the instructions on the new tablet and choose "Wireless" when asked for "bring your data for quicker setup".
4. Then, your new tablet will display a pin code for your other tablet to connect. In the meanwhile, your prototype tablet will prompt a pin code for you to input. If not, open the "Smart Switch" on your prototype tablet for delivering the data.
5. Wait for the Settings from your prototype tablet to your new tablet.
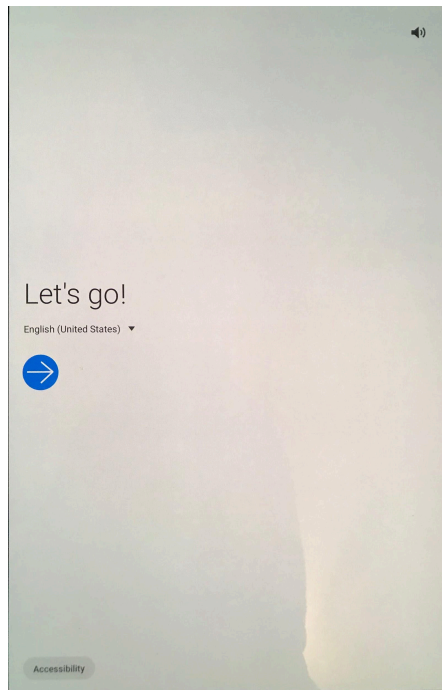6. Proceed on your new tablet for updates, it should be automatically connected to your wifi because it has imported the wifi passwords from your prototype tablet.
7. When asking to input your google account, use robots.deployment@gmail.com for the tablet.
8. Afterwards, the new tablet will ask you for restoring one of the backups on the google account. Choose "Do not restore", or select the most recent one backup.
    a. If you chose a backup to restore, make sure that you choose the three apps below on the restore detail page, if they are available.
        i. Scalefusion App
        ii. Virtual volumn
        iii. Linksys
    b. If you chose Do not restore, make sure you go through the next "Transfer Data" session to get the apps from your prototype tablet.
9. Finish all the initial setup.

This is a video walkthrough of the initial setup (here).

Transfer Data

This part is transferring apps and other data from your prototype device to your new tablet. If you went through the restoring apps part from google backup, you do not need to go through this.
1. Search for the Smart Switch app on your new tablet.
2. Install it from Google Playstore if it's not present. (Google play store might ask you to complete your profile by putting in credit card information, ignore this.)
3. Open the smart switch app and select "receive data"
4. In "Source" section, select "Galaxy"
5. Open the smart switch app on your prototype tablet and select "send data"
6. Allowing data transfer by wireless connection between two tablets.
7. Wait for the data transfer to finish

Scalefusion KIOSK License

If you have finished the data transfer, and can see from the notification bar on the tablet that Google play store is downloading many apps, wait for the downloading to finish. Meanwhile, let's learn about Scalefusion dashboard.

Scalefusion Login

The Scalefusion web page is [here](), go to the website and login with the account and password from the group's lastpass. After you login, go to the dashboard if you are not already there.

Scalefusion dashboard

Dashboard looks like the image below. In the Devices tab, you can see a list of devices that's currently associated with a valid license. One license can only be applied to one tablet. It allows your tablet to enter KIOSK mode and provide you many remote control options from the dashboard.

By clicking on the profile on the top right corner, you are able to see the available licenses in the account and how many are applied. To do so, click on Manage License.

On the page below, you'll see meta information of how licenses are used. For more details of which device is using a license, click on the license group and enter the detail page.

On this details page, you can see many information about which devices are using a license from this license group, and how many licenses are left in this group for you to add new devices. The **License Code** on this is important, we can input the code on the tablet (inside of the Scalefusion App) and activate the device with one license. To view the code, simple click on the "eye" next to the encrypted area and copy it.
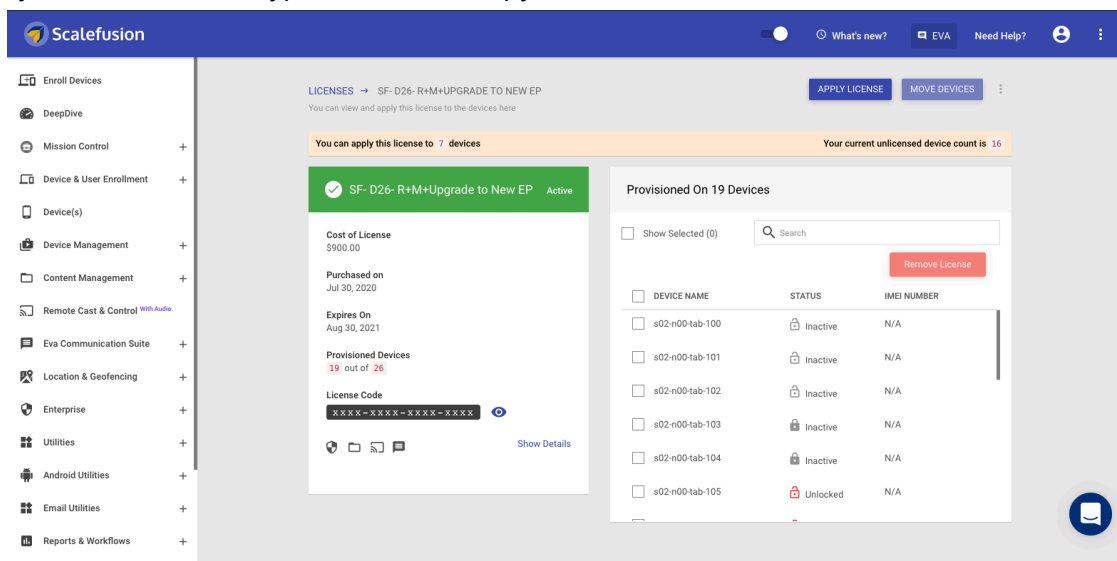

Naming of Device

As you can see, each device has one unique device name, like it's shown on the right side of the image above. It has four parts:

5. s02: Unique identifier for all devices in literacy project.
6. n00: Unique identifier for home deployment devices. n01 and n02 are both for school deployment.
7. tab: Identifier for tablet devices.

8. DDD: three digits for uniquely identifying each device. It's consecutive numbers. For instance, home station tablets are "s02-n00-tab-100", "s02-n00-tab-101", "s02-n00-tab-102", ... "s02-n00-tab-106".

Name your device based on this naming convention and make sure the serial identifier is unique.
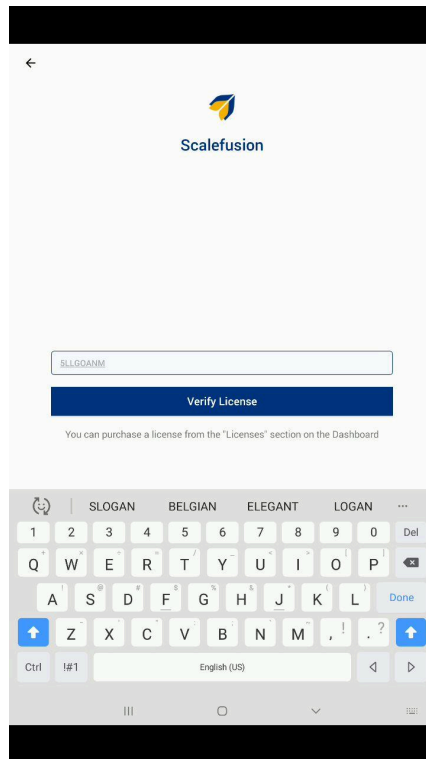
Settings

1. Go to the Settings tab and rename the device. You can do so by scrolling down to the bottom of the Settings and tap on "About tablet", change the name "Galaxy s5e" by tapping on "Edit". Put in the unique identifier for you device following the naming convention, for instance, "s02-n00-tab-107"
2. Then, go to the "Software information" below, find the "Build number".
3. Tap on the "Build number" 7 time consecutively, you'll see the notification says "Developer mode is turned on".
4. Then, when you go back to the main Settings, you'll see a new tab called "Developer options" showed up beneath the "About tablet" tab.
5. Go in the Developer options, enable the option "USB debugging".
6. Last but not least, go back to the Settings tab, select Display, find "Screen saver" and make sure it is turned on and chosen as "Colors".

Activate Scalefusion License

1. After all the downloading finished, open Scalefusion app on your new tablet.
2. Select Other Enrollment method, and select License Key
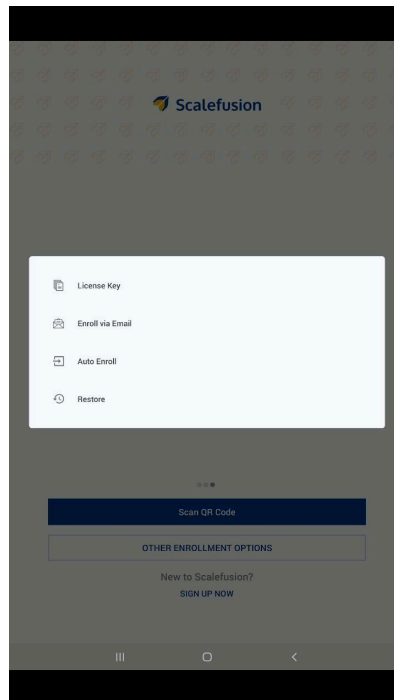
3. When an input field shows up, type in the key from the Scalefusion dashboard. (Make sure there are available license before you enroll your tablet)

4. After enrollment, put in the device name on Scalefusion app. (The same name you put in the Settings on the tablet)
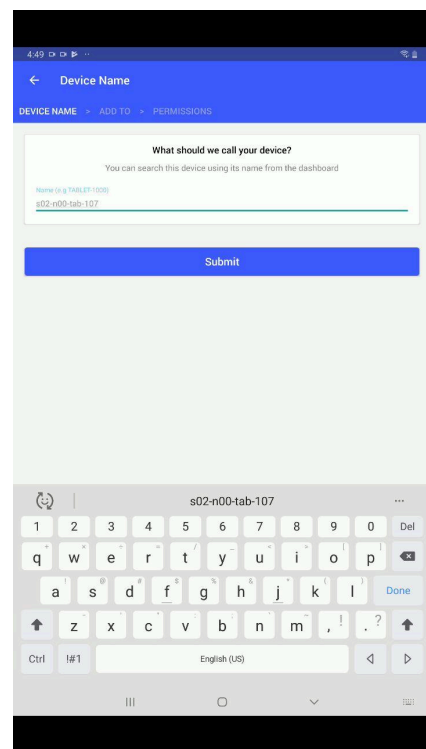
5. Choose the Device profile group "KIOSK-HOME-GA".

6. In the Permission section, grant all the permissions, and proceed.
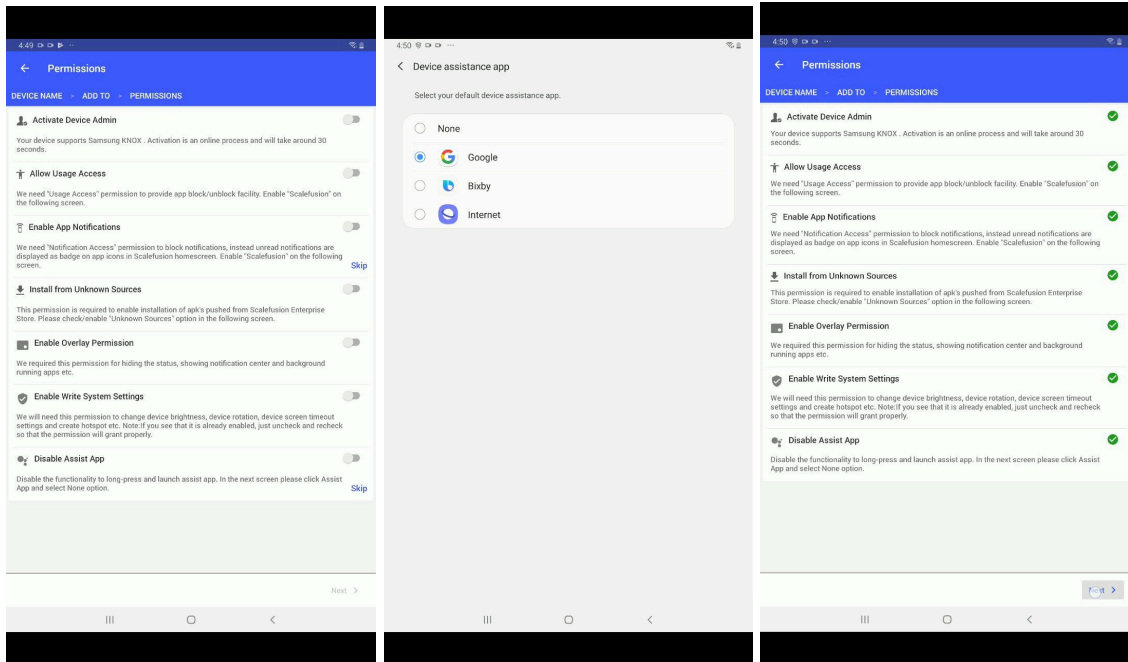   a. For some, you'll need to agree with the terms and conditions.
    b. For some permissions, it will take you to a list of apps, find Scalefusion in the list and enable the permission for it.
    c. For the last one, "Disable Assist App", tap on "Device assistance app" and change to "None" from the default "Google".

7. Then your activation should be finished.

Authorization & Test

For us to remotely control the tablet once it's shipped, we need to go into the "RemoteCast" app on the tablet (should be already installed once your Scalefusion is activated; if not, open the Scalefuion and wait for the apps to download.)

Do the following steps to authorize RemoteCast app:

1. Open RemoteCast; if you are in Scalefusion app now and don't have control over the tablet, please go to the Scalefusion web dashboard -> Devices -> <Find your own device name on the list of devices> -> Go in details of your device -> Unlock your device.
2. When you open the RemoteCast app, you can see there are some items for you to authorize. Choose "Grant Access" to all of them, except for the last super user privilege (you won't be able to authorize this because our devices are not rooted).

Wrap Up

1. Label your tablet with its name and stick it to the back of the tablet!
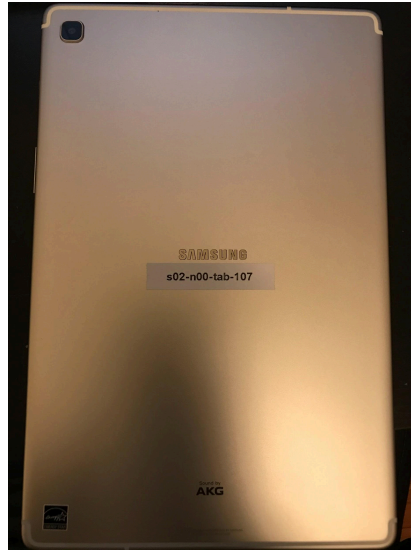
2. Check list:
    a. Check the apps are on the list:
        i. Scalefusion
        ii. Virtual button
        iii. Linksys
    b. Check Scalefusion is activated:
        i. Open Scalefusion, and you should see it shows your device name on the top left.
        ii. Make sure the name is the same with your device name (In Settings -> About device).
        iii. On Scalefusion website -> Dashboard -> Device(s), you should be able to find your device with its name.