



Frog Tech University, FRC Team 503  
September 1<sup>st</sup>, 2017

Course 102

Today's Goal.....

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The goal of todays session is to set up your Motorola phones to control your robot

Just checking if you have the right slide deck.....

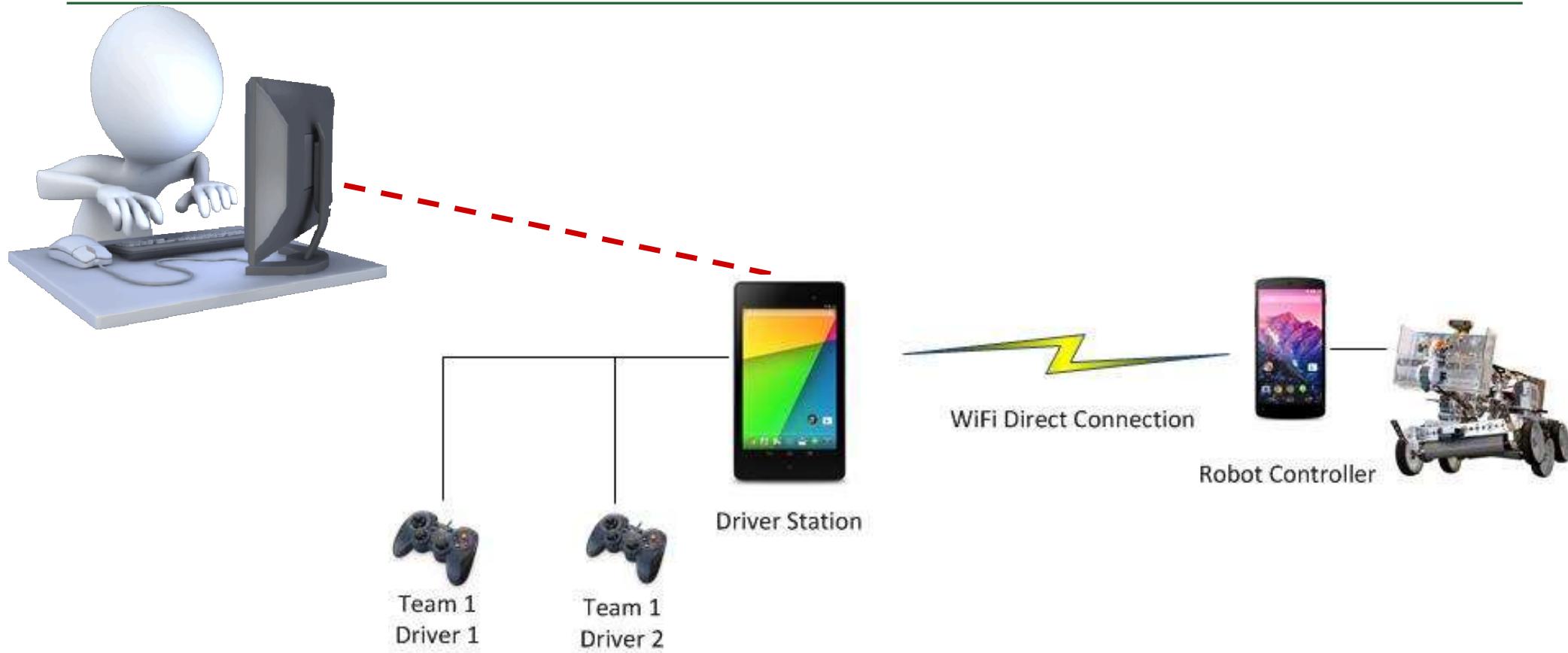
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The phone should look like the picture on the left.  
If not please use one of the other phone slide decks!

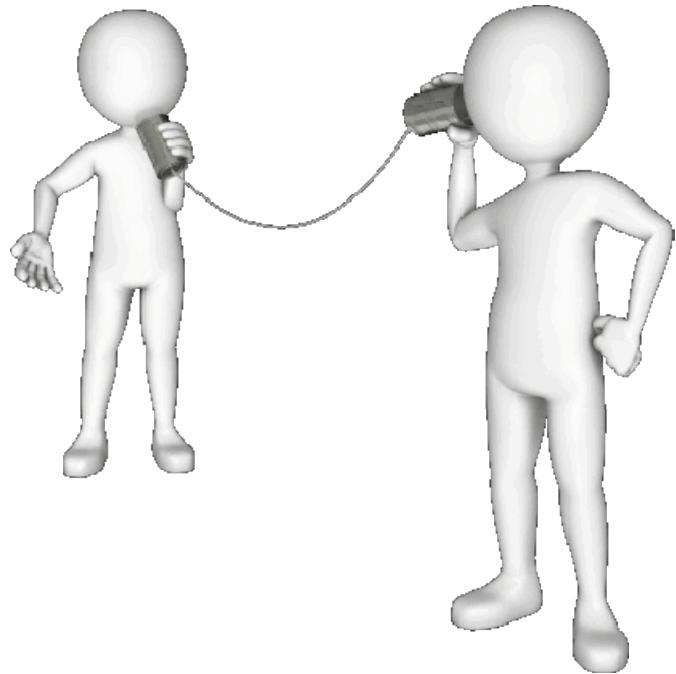
## New Point to Point Communication System

Pair of Motorola phones provide 'Wi-Fi Direct' Communication



## Android Phone Set-up 12 Easy Steps !!!

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1. Remove the SIM Cards
2. Configure phone
3. Setup Home Page
4. Enable Airplane mode
5. Change Display Settings
6. Turn off the Security Settings
7. Configure Wireless
8. Enable USB Debugging mode
9. Configure Developer options
10. Deploy the Robot Controller
11. Deploy the Driver Station
12. Network Cleanup

***If talking to a robot were this easy ...***

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## Step 1 – Remove the SIM Cards

### 1. To prevent the phones from attempting connections to the Cell Phone network

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#### Guide

- Power off both cell phones
- There is a slot in the back cover that you can use your fingernail to pry off the back cover (see red oval)
- Inserting a fingernail all around the case will cause the case to pop apart.
- Remove the back covers leaving the phones face down

## Step 1 – Remove the SIM Cards

### 2. Remove SIM card

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#### Guide

- The battery covers the SIM card slot and must be removed
- There is a slot at the bottom of the batter (see red oval)
- Insert fingernail in this slot and gently lift the battery out
- If you have not yet installed the batter in the phone proeed to the next step.

## Step 1 – Remove the SIM Cards

### 3. Remove SIM card



#### Guide

- With the battery removed the SIM card is accessible. (See red oval)
- There is a metal slide on the left of the SIM card holder (see arrow). Push this slide toward the bottom of the phone to move the SIM card toward the battery space.
- The SIM card should now be partially removed from the slot.
- Gently push on the card with your finger pushing the card toward the battery space until the card is fully removed from the slot. (This may take several tries ☺).
- Remove the SIM cards and put them in a safe place.
- Replace the battery.
- Replace the back covers

## Step 1 – Remove the SIM Cards

### 4. Turn on Phones

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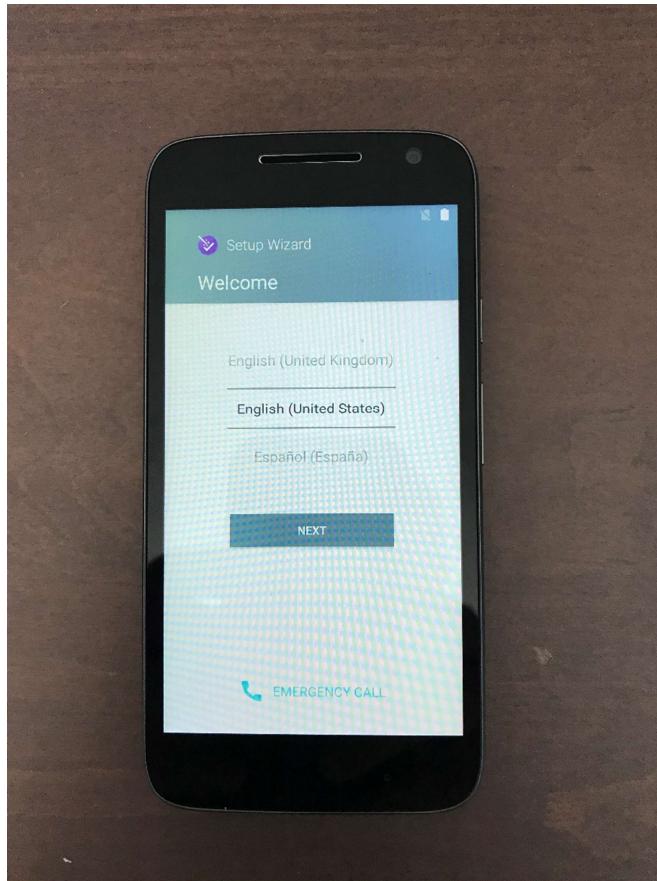
#### Guide

- Turn the phones face up
- Turn the power on each phone by depressing the power button (See Arrow)

## Step 2 – Configure both phones

### 1. Set the Language

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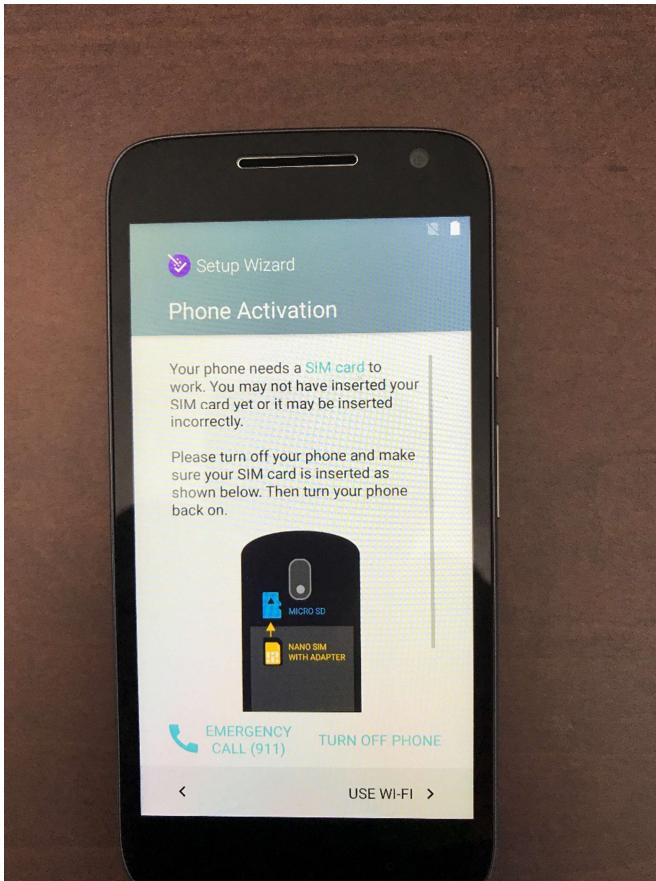


### Guide

- Once the phone fully boots up you will see the Welcome screen similar to the one on the left.
- Select ‘English (United States)’ on the menu (it should already be selected but if not, scroll through the options until it is highlighted similar to the screen on the left)
- Click ‘Next’

## Step 2 – Configure both phones

### 2. Without a SIM card the phone will ask to use WI-FI



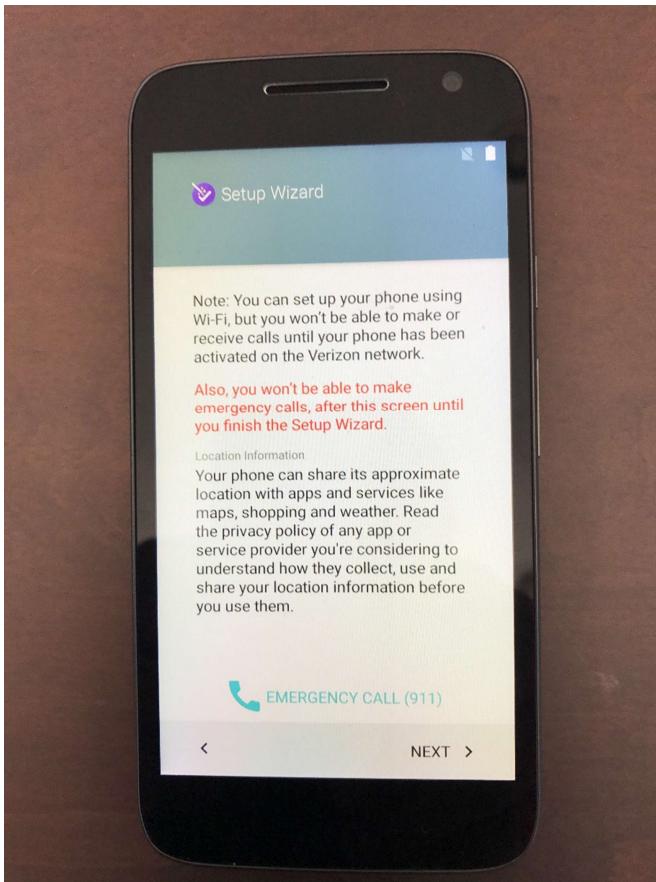
#### Guide

- The phone will notice it does not have a SIM card and will prompt you to use WI-FI instead.
- Click “USE WI-FI”
- Note: If you do not see the “USE WI-FI” button scroll the screen down until you see it

## Step 2 – Configure both phones

### 3. Confirm WI-FI Selection

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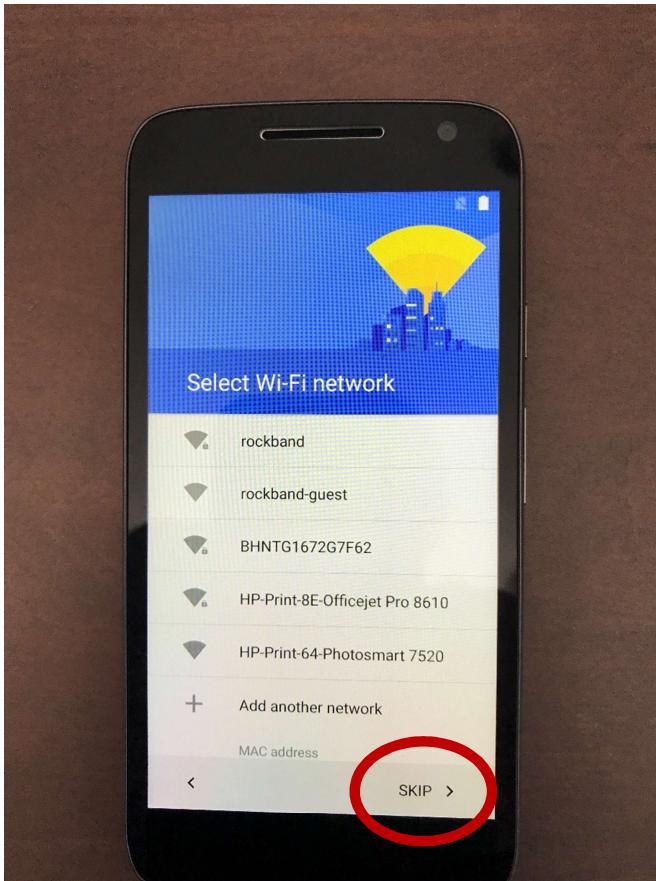


#### Guide

- The phone will display a warning screen that you can not make phone calls without a SIM card.
- As the robot will not make any cell phone calls, Click “NEXT”

## Step 2 – Configure both phones

### 4. Select a WI\_FI network

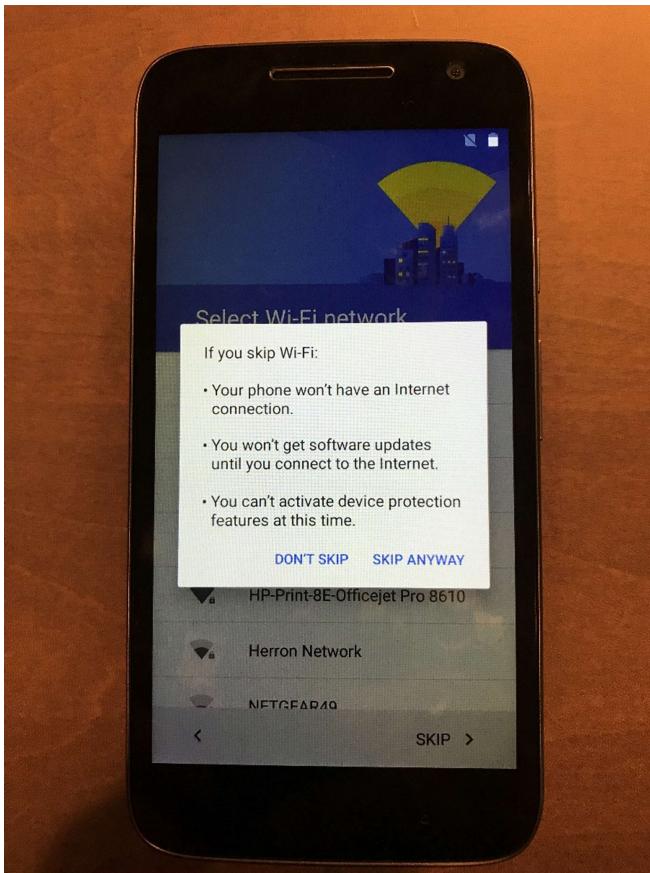


#### Guide

- The phone will display a list of available WI-FI networks that it has discovered.
- Select the appropriate network.

## Step 2 – Configure both phones

### 5. Select a WI\_FI network

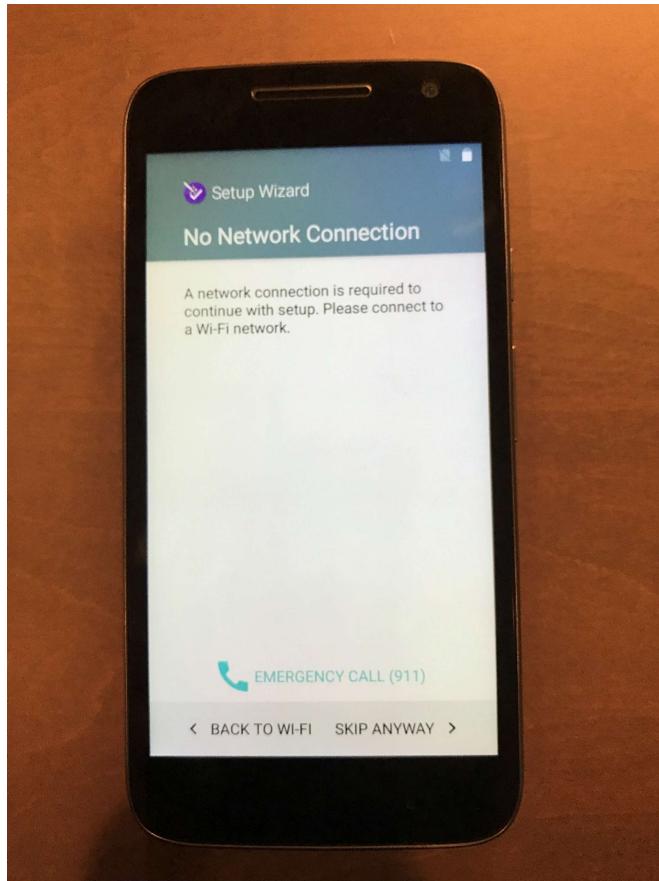


#### Guide

- If you skip Wi-Fi popup box
- Click “SKIP ANYWAY”

## Step 2 – Configure both phones

### 6. Select a WI\_FI network



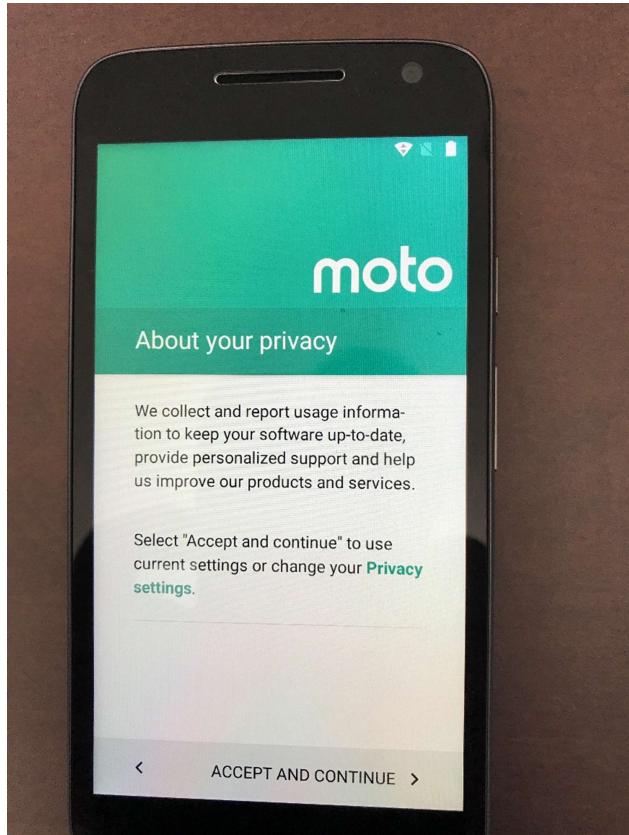
#### Guide

- No Network Connection
- Click 'SKIP ANYWAY'

## Step 2 – Configure both phones

### 7. Confirm Privacy Setting

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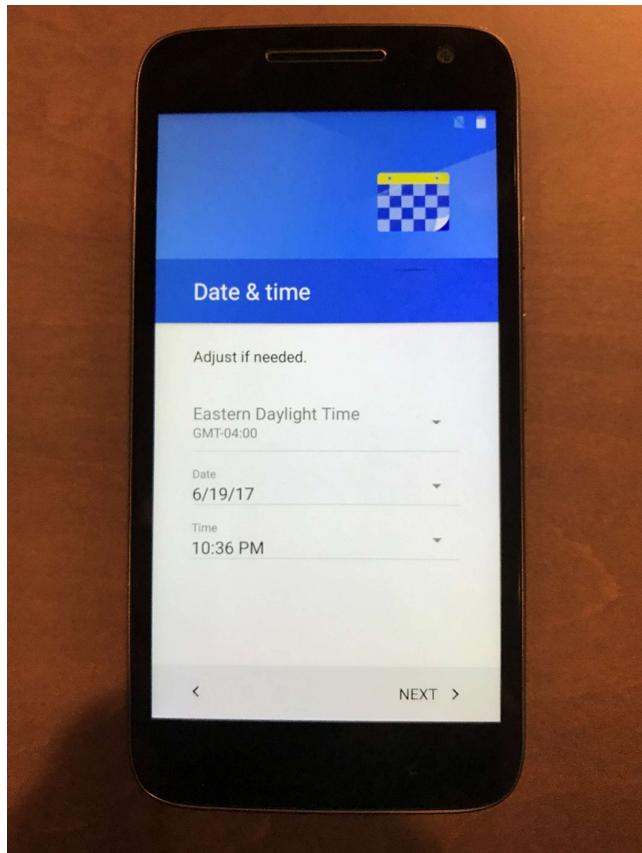
#### Guide

- Click 'ACCEPT AND CONTINUE'

## Step 2 – Configure both phones

### 8. Select a WI\_FI network

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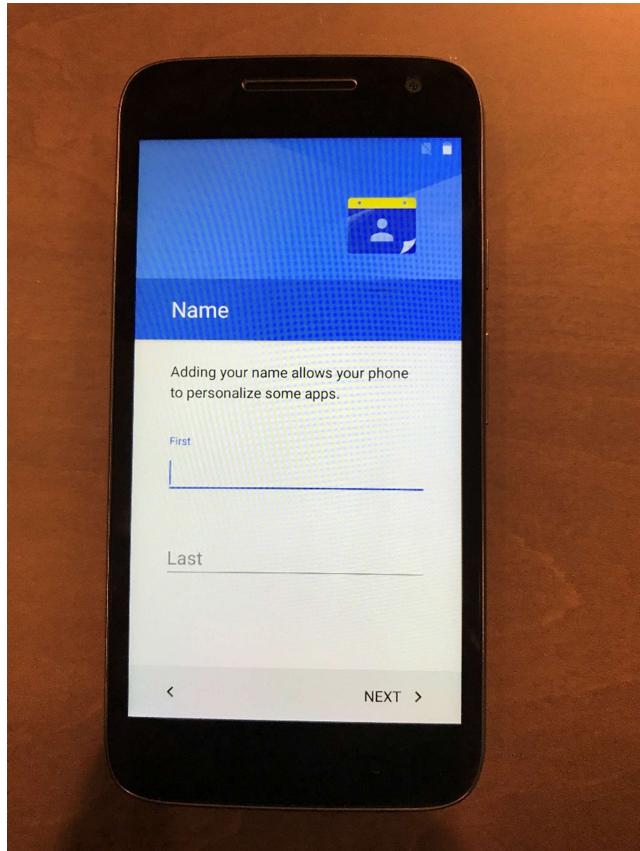
#### Guide

- Enter the correct Date & Time
- Click 'NEXT'

## Step 2 – Configure both phones

### 9. Select a WI\_FI network

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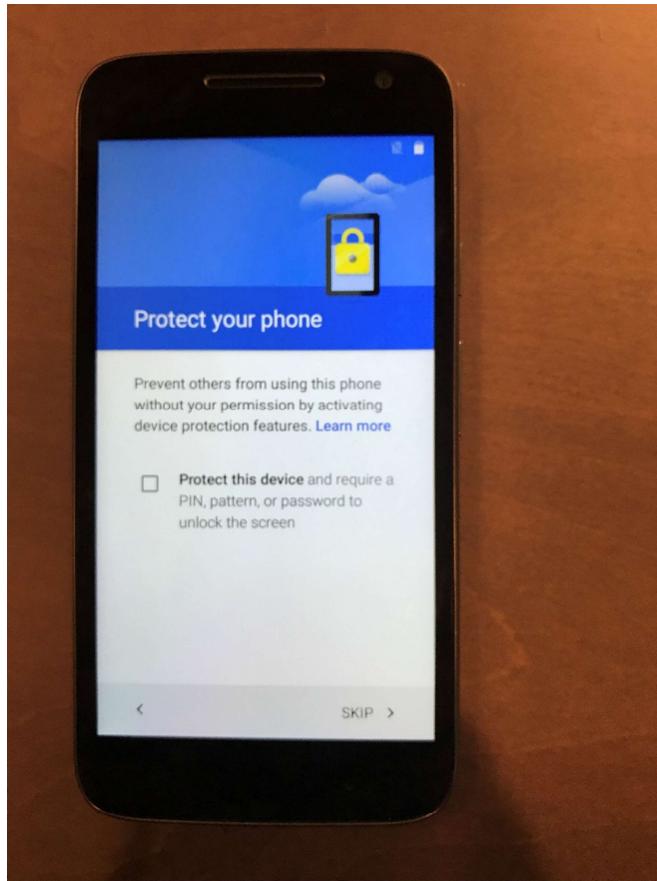


#### Guide

- You can set a name for the person using the phone, but seeing as how this is a robot controller we will just skip it.
- Click 'NEXT'

## Step 2 – Configure both phones

### 10. Select a WI\_FI network



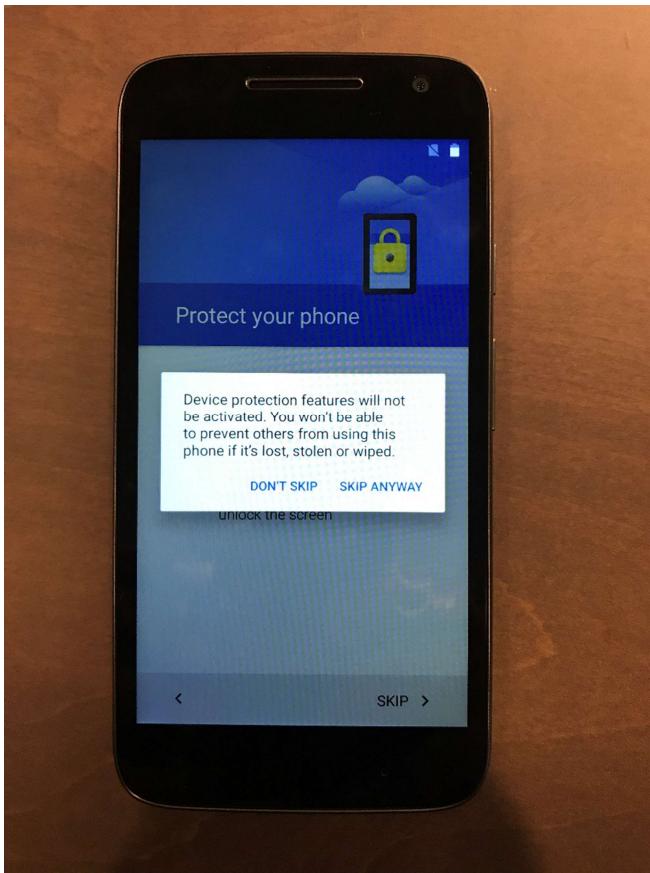
#### Guide

- Protect your phone
- Uncheck all settings
- Click 'SKIP'

## Step 2 – Configure both phones

### 11. Select a WI\_FI network

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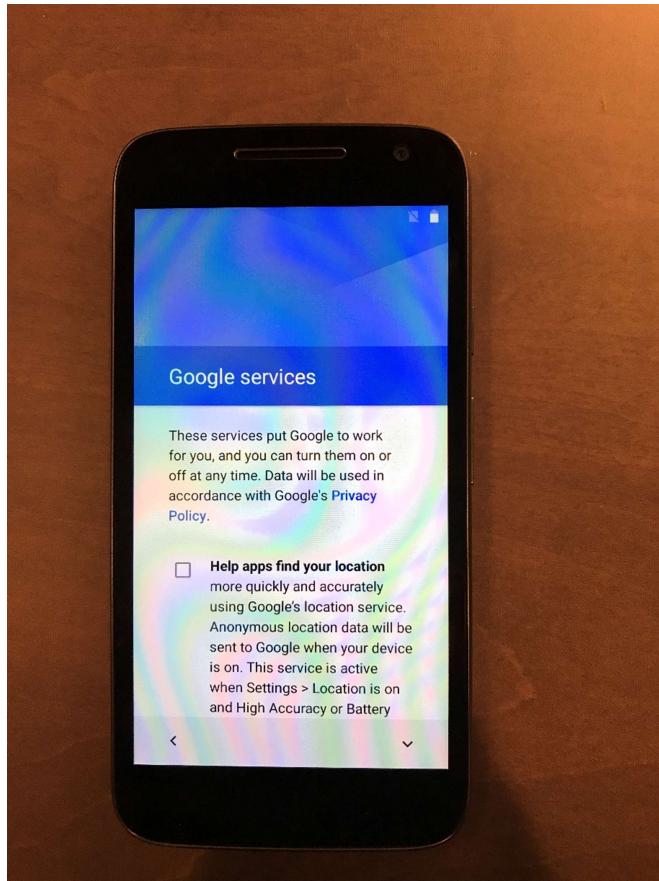


#### Guide

- The phone will display a pop-up warning message that device protection will not be activated.
- Click 'SKIP ANYWAY'

## Step 2 – Configure both phones

### 12. Select Optional Google Services

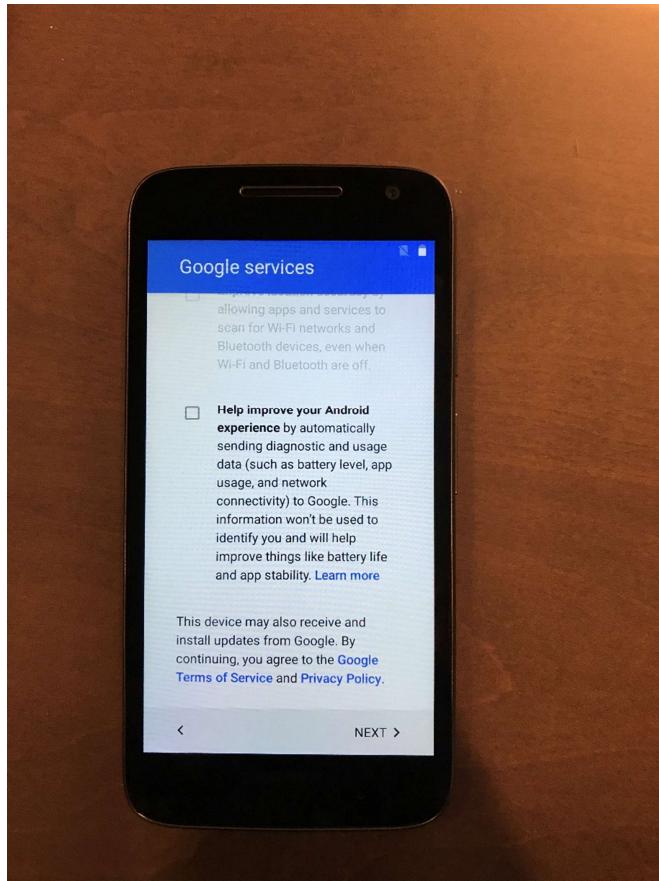


#### Guide

- you will see a screen similar to the one on the left.
- It is asking which Google Services you will this phone to utilize.
- As we want this phone to be a robot controller or driver station we want it to be as clean as possible so do not check any of the services.
- Uncheck all services by clicking on the item.
- You may see a warning box popup if you uncheck an item-just ignore it and move on.
- You want the blue check mark off for all items

## Step 2 – Configure both phones

### 13. Select Google Optional Services



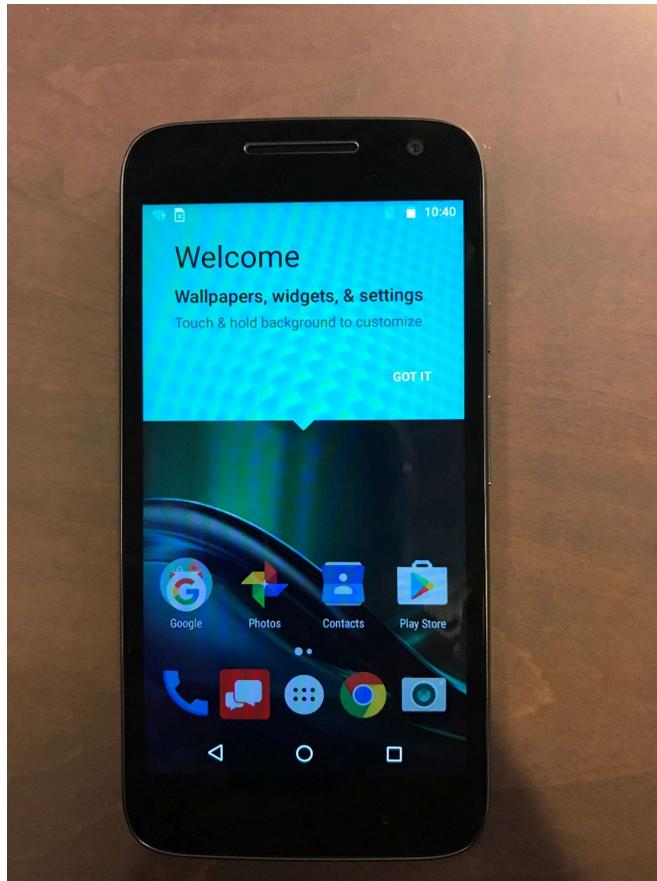
#### Guide

- You will have to scroll the screen down until you see the 'NEXT' button (Similar to the screen on the left)
- Continue unchecking all items.
- Click 'NEXT'

## Step 2 – Configure both phones

### 14. Click Got IT

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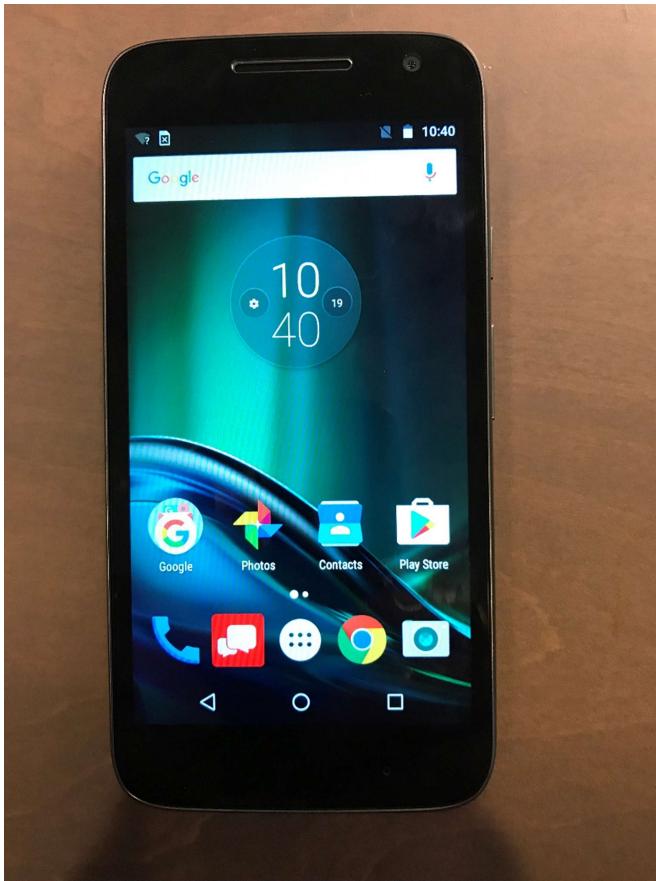


#### Guide

- The phone will display a Welcome screen similar to the one on the far left.
- Click 'GOT IT'

## Step 2 – Configure both phones

### 15. Configuration Complete

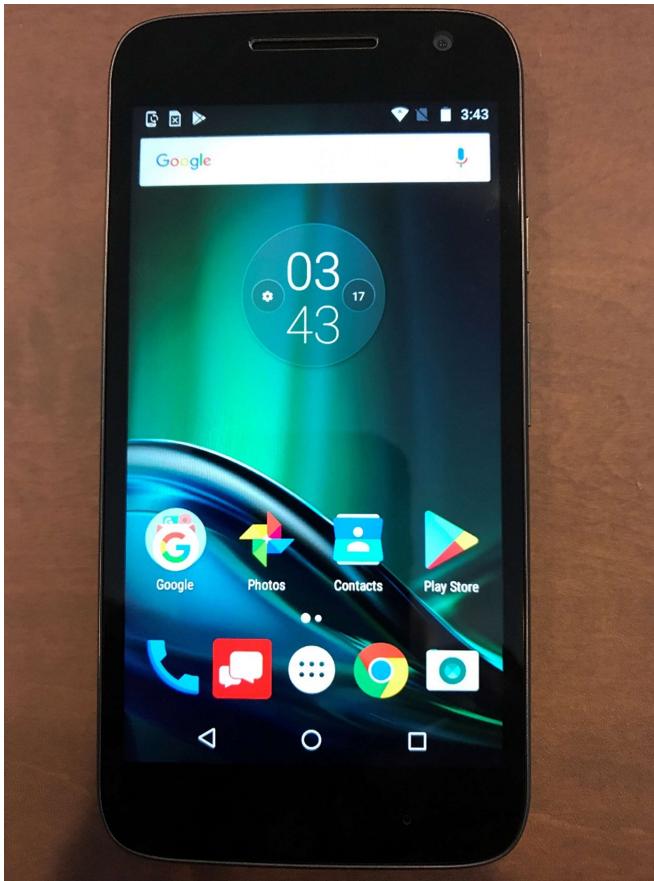


#### Guide

- Once the phone has completed the configuration you will see a ‘home’ screen similar to the one on the left
- Congratulations – Your phone is now setup and is ready to accept FIRST software.
- Now go back and complete the same steps for the second phone! ☺

## Step 3 – Setup Home Page

### 1. Start off at Phone Home Page

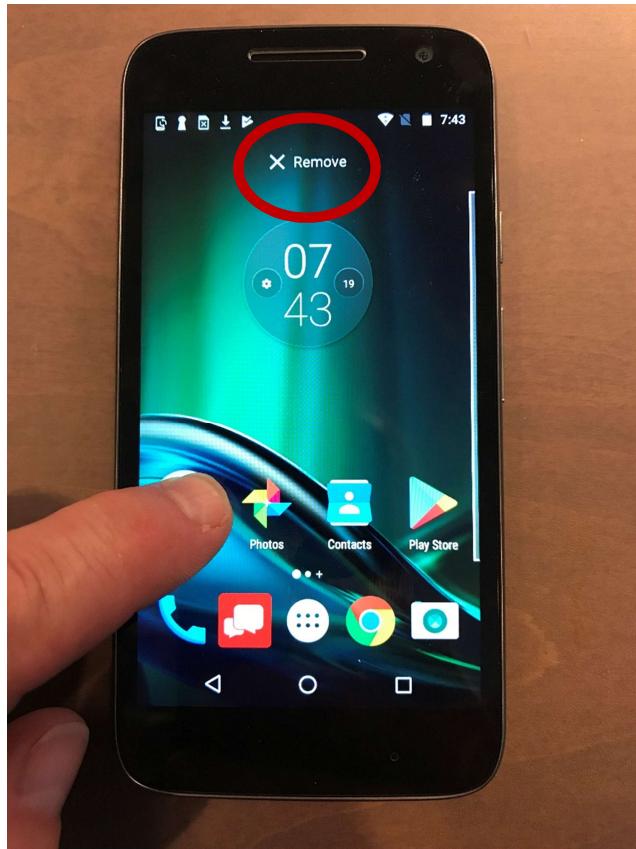


#### Guide

- The first thing we want to do is get rid of all the stuff you don't need on the home page.
- Start off at the Home screen similar to the one on the left.

## Step 3 – Setup Home Page

### 1. Start off at Phone Home Page

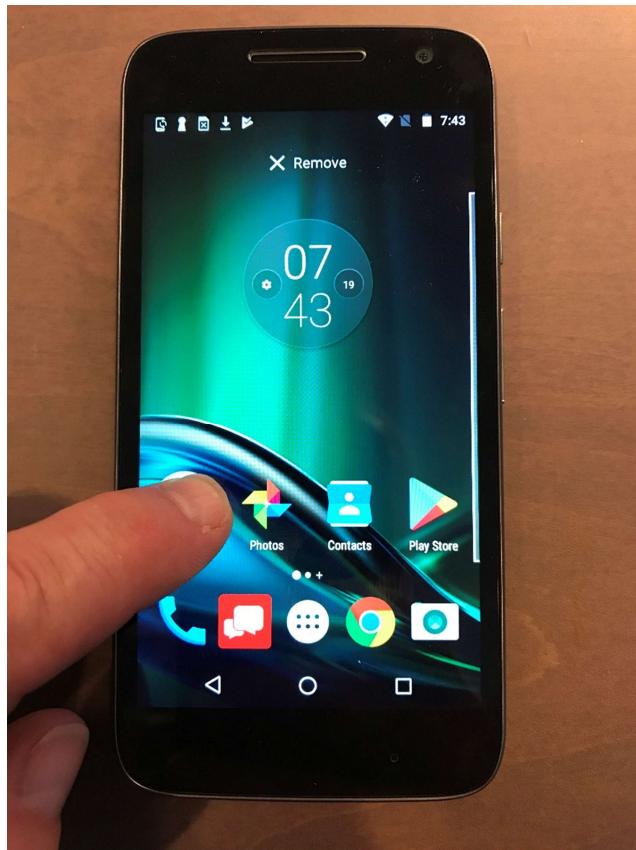


#### Guide

- When you press and hold an icon the “X Remove” button will appear. (See red oval)
- Now press and hold the icon you want to remove and drag it to the ‘X Remove’ button and drop it on the button. The Icon will be removed from the home page. Complete this same process for the:
  - Google Icon
  - Photos icon
  - Contacts Icon
  - Telephone Icon
  - Message Icon

## Step 3 – Setup Home Page

### 2. Remove Unnecessary Icons from Home Page



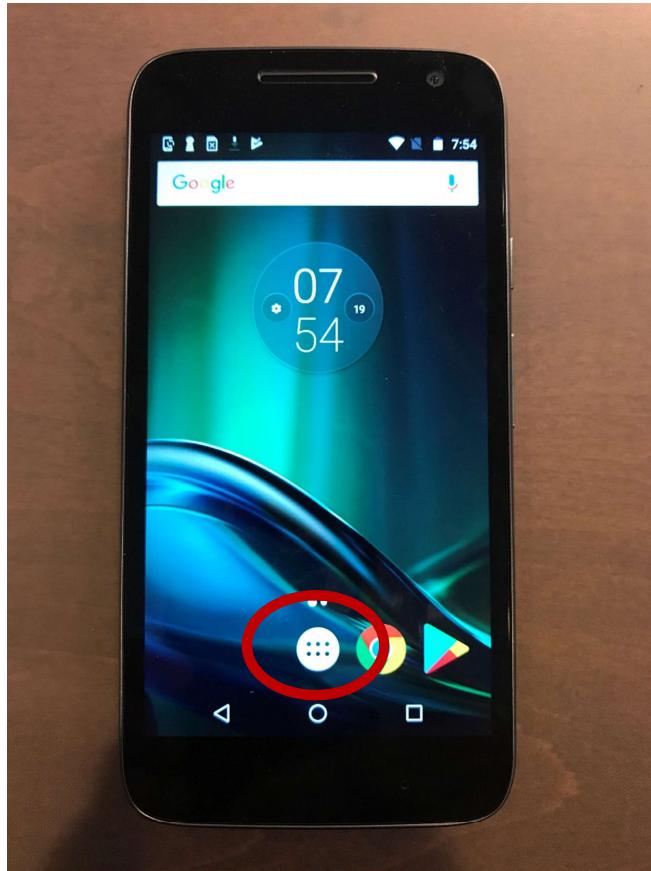
#### Guide

- When you press and hold an icon the “X Remove” button will appear. (See red oval)
- Now press and hold the icon you want to remove and drag it to the ‘X Remove’ button and drop it on the button. The Icon will be removed from the home page. Complete this same process for the:
  - Google Icon
  - Photos icon
  - Contacts Icon
  - Telephone Icon
  - Message Icon
  - Camera Icon

## Step 3 – Setup Home Page

### 3. Continue Removing Icons

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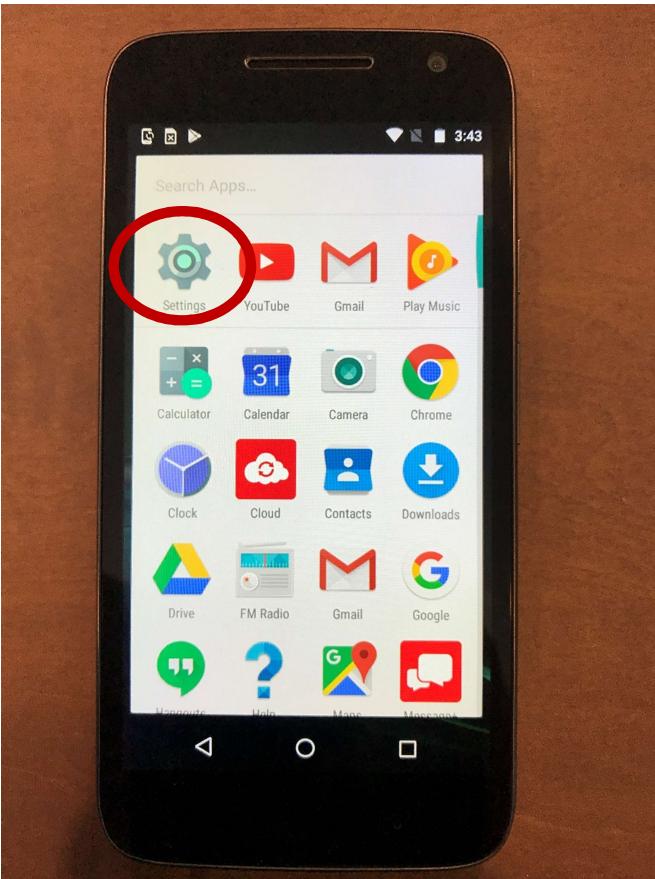


#### Guide

- Continue removing icons until only the Applications, Chrome, and Play Store icons remain.
- Drag and drop the remaining icons until the home screen looks similar to the one on the left.
- Click the Applications button (See red oval)

## Step 3 – Setup Home Page

### 4. Copy Settings Icon to Home Page



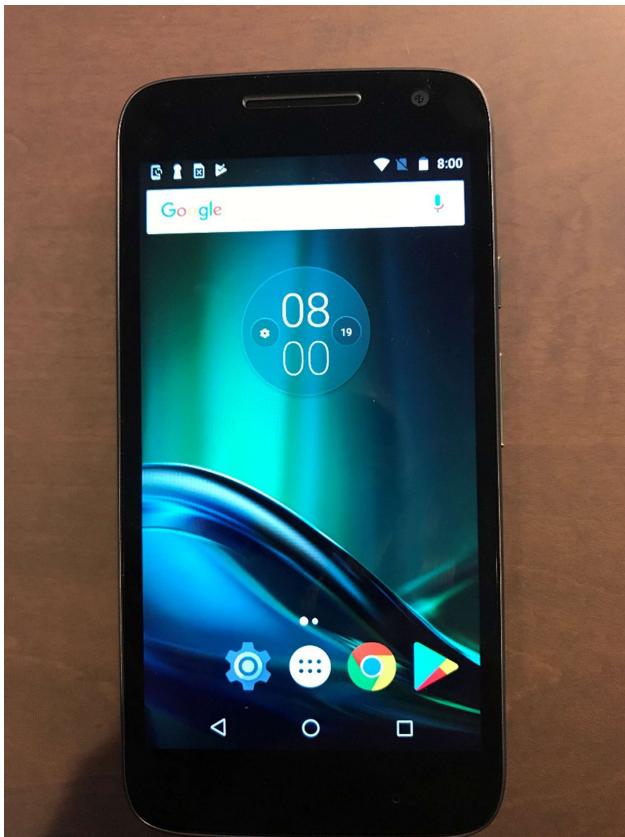
#### Guide

- The Settings icon is used very frequently for FIRST programs so it would be best to copy it to the home page to make it very easy to find.
- Press and hold the Settings Icon (See red oval)
- The home page will appear.
- Drop the icon on the Home page

## Step 3 – Setup Home Page

### 5. Resulting Home Page

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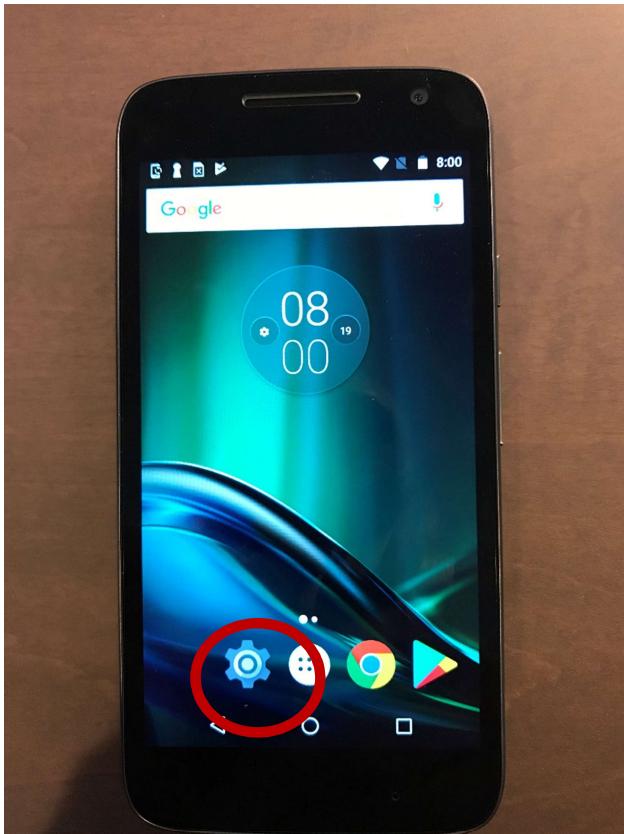
#### Guide

- Your home page is now complete. (It should look similar to the screen on the left)
- We have left one icon slot on the far left of the page open to hold the FTC applications. But more on that later.

## Step 4 – Enable Airplane Mode

### 1. Start off at Phone Home Page

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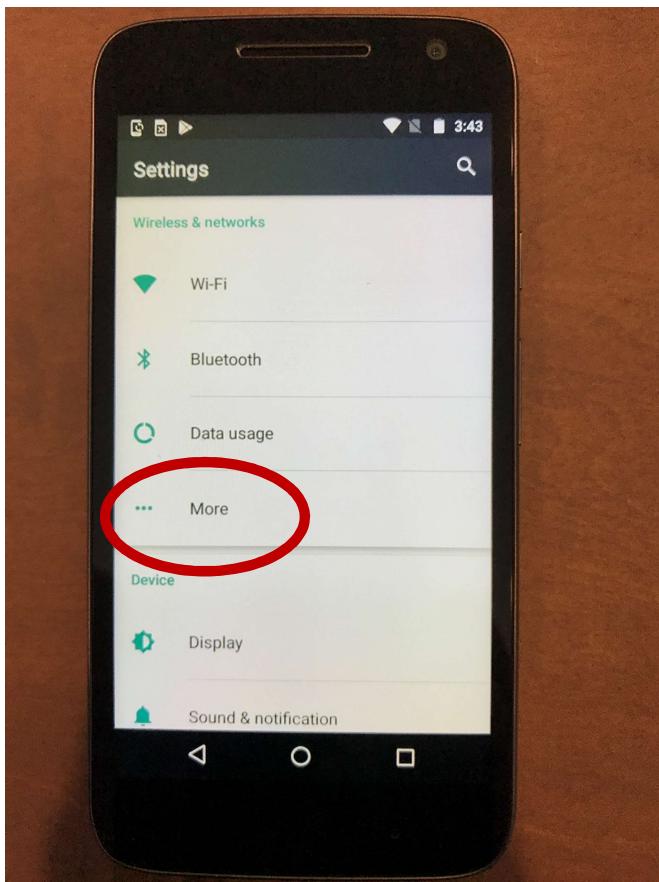
#### Guide

- The Next thing we need to do is enable Airplane mode.
- Start off at the Home screen similar to the one on the left.
- Click the Settings Icon (See red oval)

## Step 4 – Enable Airplane Mode

### 2. Select ‘More’ Settings

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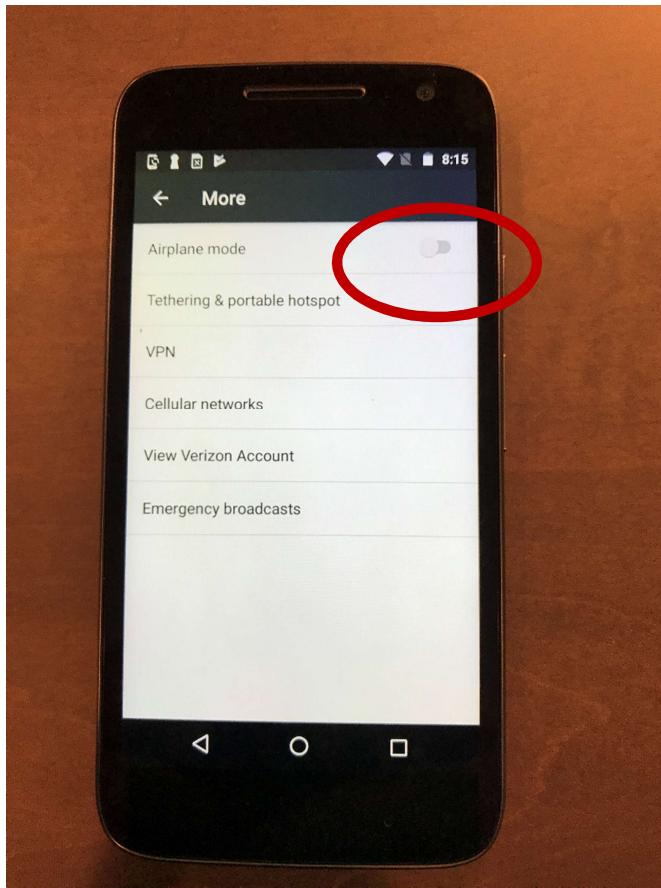
#### Guide

- This will display the ‘Settings’
- Click the ‘More’ button (See red oval)

## Step 4 – Enable Airplane Mode

### 3. Click Airplane Mode Button

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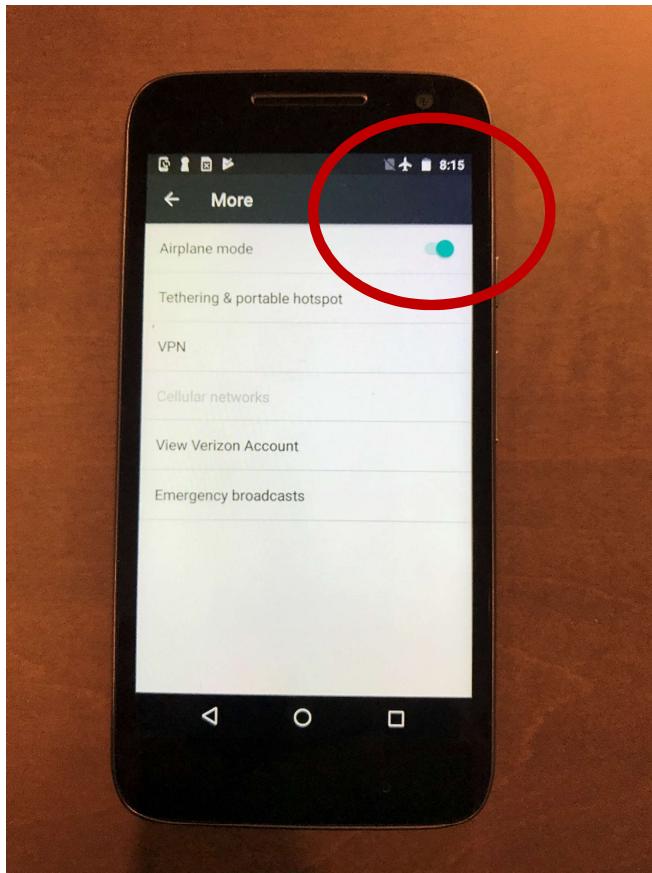


#### Guide

- This will display the ‘More’ settings page.
- Click the ‘Airplane Mode’ button (See red oval)

## Step 4 – Enable Airplane Mode

### 3. Airplane Mode Confirmation



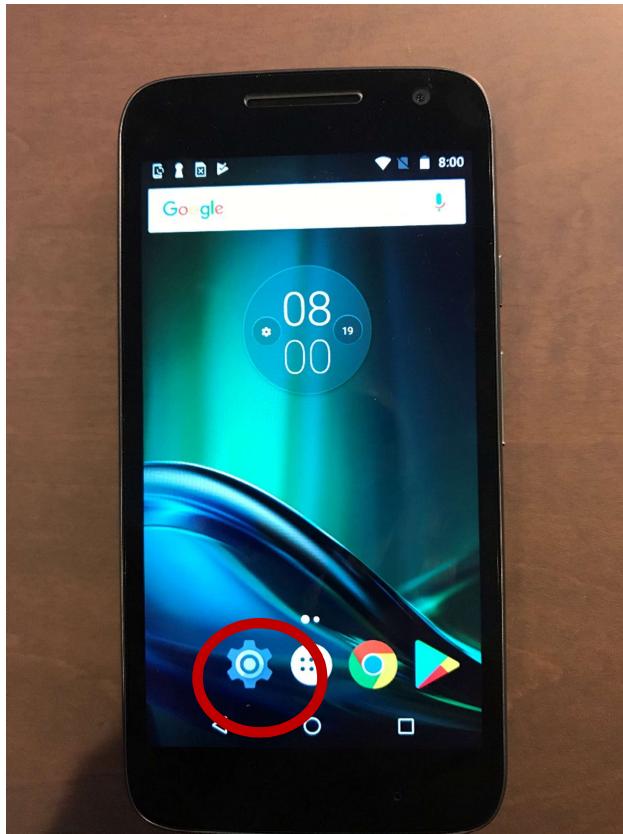
#### Guide

- The 'Airplane Mode' button will turn green and slide to the right to show it is enabled.
- The phone will also display a picture of an airplane in the icon bar at the top of the page. (See red oval)
- Congratulations you have completed setting the Airplane Mode.

## Step 5 – Change Display Settings

### 1. Start off at Phone Home Page

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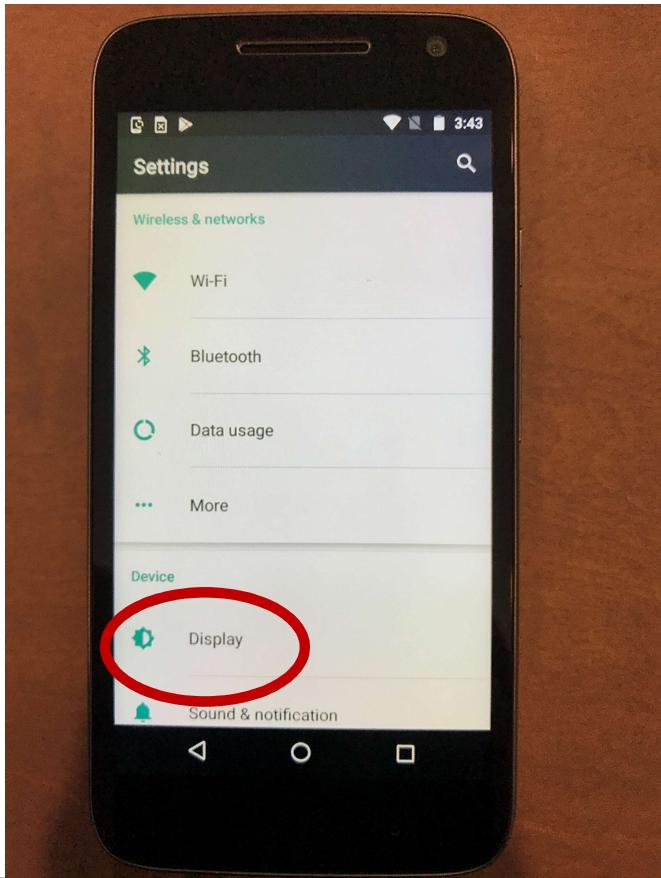
#### Guide

- The Next thing we need to do is enable Airplane mode.
- Start off at the Home screen similar to the one on the left.
- Click the Settings Icon (See red oval)

## Step 5 – Change Display Settings

### 2. Select ‘Display’ Settings

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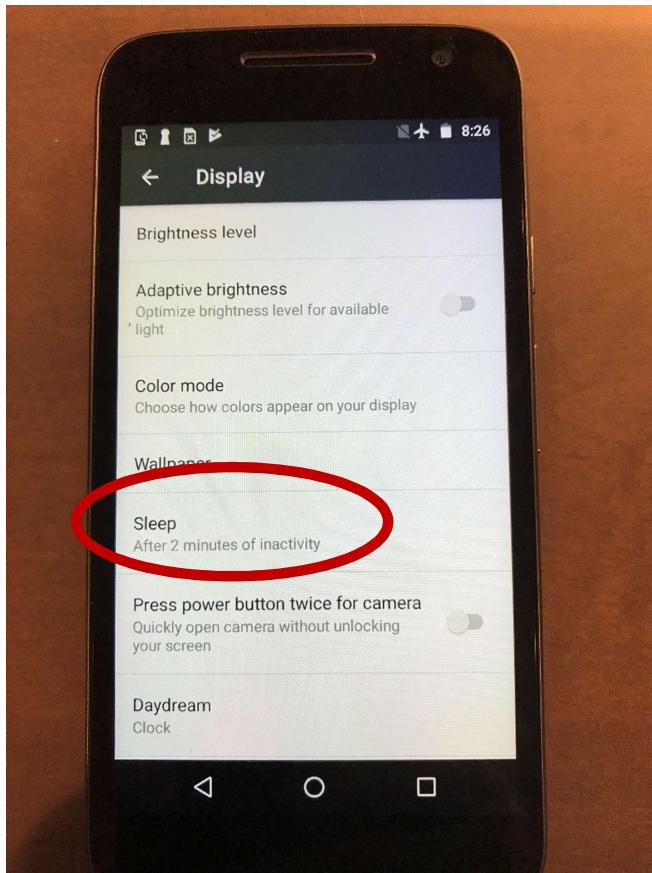


#### Guide

- This will display the ‘Settings’
- Click the ‘Display’ button (See red oval)

## Step 5 – Change Display Settings

### 2. Select ‘Sleep’ Settings

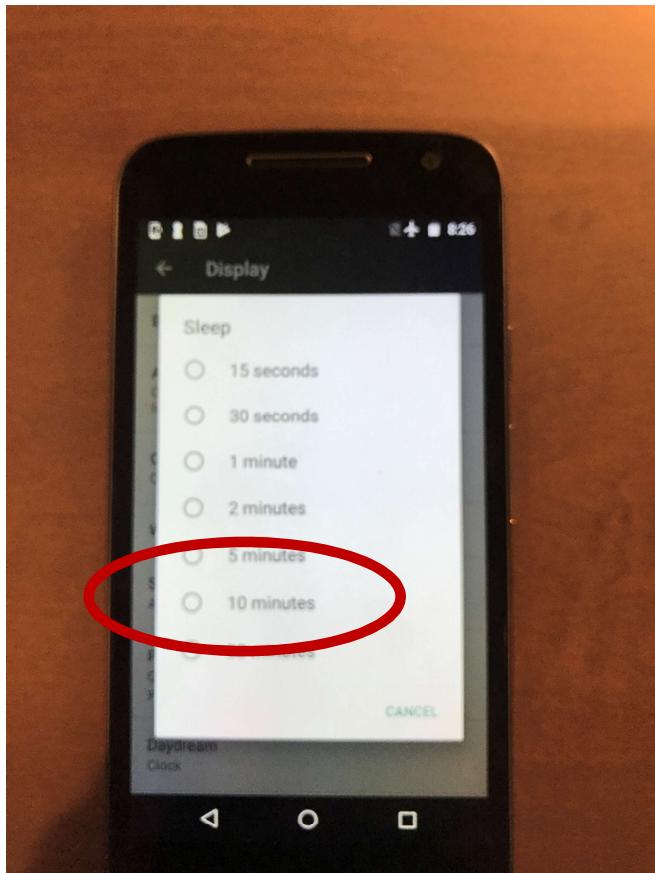


#### Guide

- This will display the ‘Display’ settings page
- Currently the phone will go to sleep after 2 minutes of inactivity we should change this to a longer time.
- Click the ‘Sleep’ button (See red oval)

## Step 5 – Change Display Settings

### 3. Select 10 Minutes' Settings

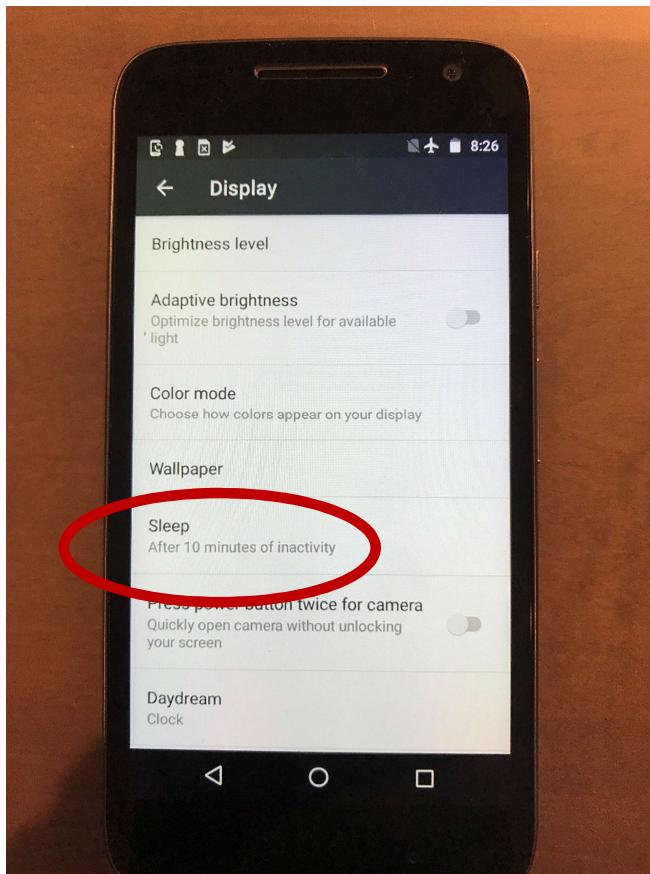


#### Guide

- This will display the 'Sleep' settings page
- Click the '10 minutes' button (See red oval)

## Step 5 – Change Display Settings

### 4. 10 Minute Sleep Confirmation

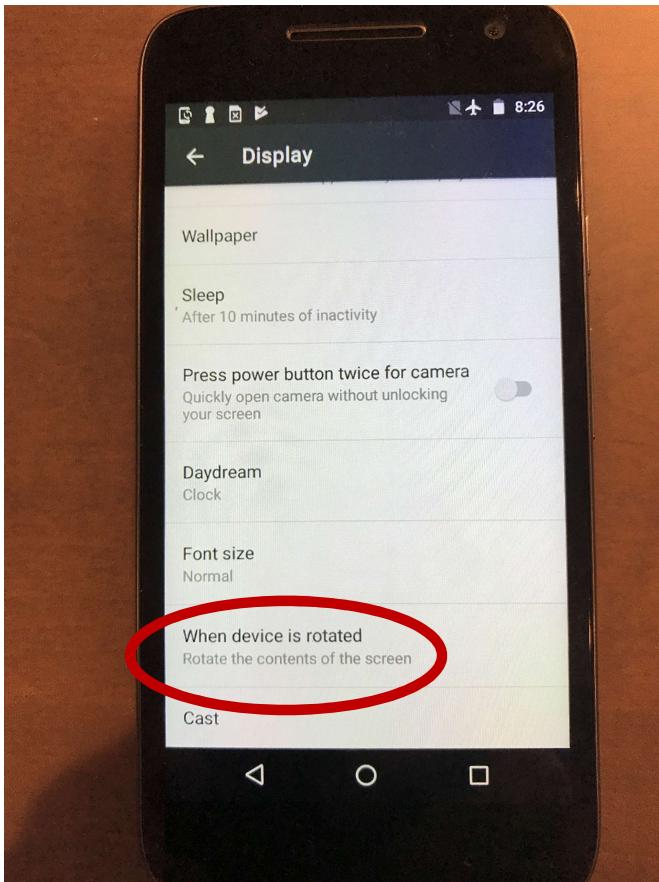


#### Guide

- This will return to the ‘Display’ settings page
- The Sleep Setting will show 10 minutes on inactivity (See red oval)
- Scroll down the page looking for ‘When Device is Rotated’

## Step 5 – Change Display Settings

### 5. Select ‘When Device is Rotated’



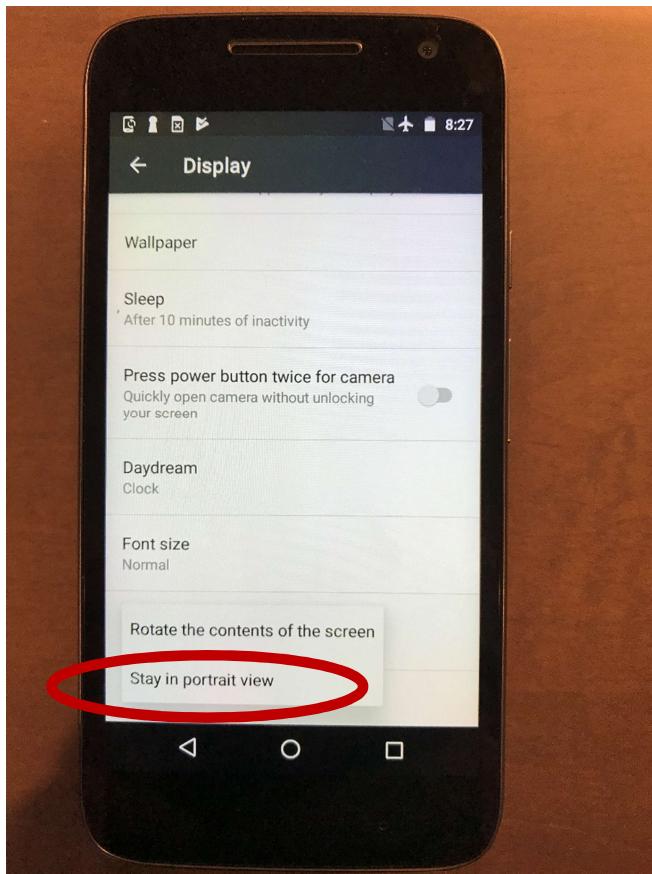
#### Guide

- Scroll down to the ‘When Device is Rotated’
- Click ‘When Device is rotated’ (See red oval)

## Step 5 – Change Display Settings

### 6. Select ‘Stay in Portrait View’

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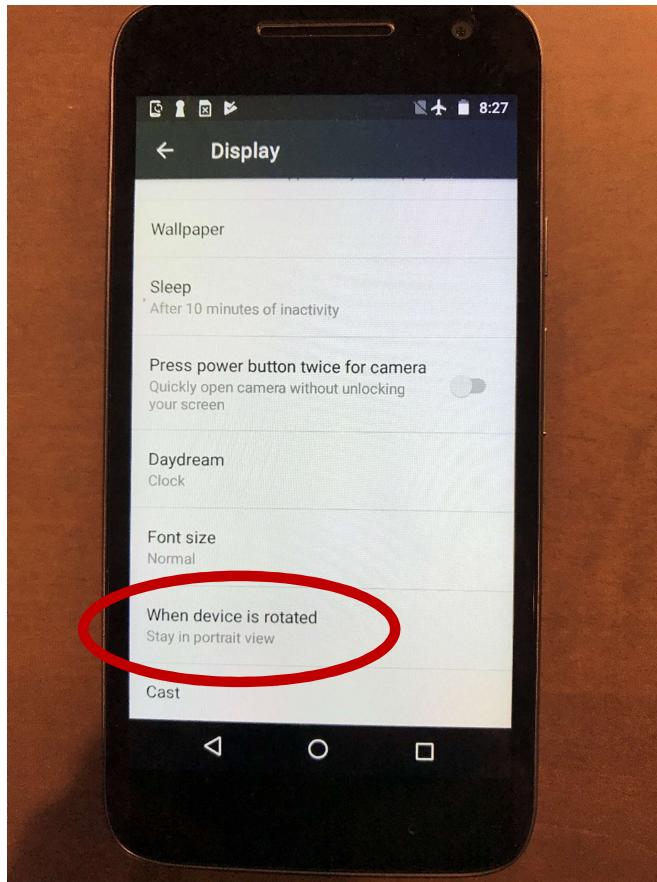


#### Guide

- A popup menu will display with two options:
  - Rotate the contents of the screen
  - Stay in Portrait view
- Click ‘Stay in Portrait view’ (See red oval)

## Step 5 – Change Display Settings

### 7. Portrait View Confirmation



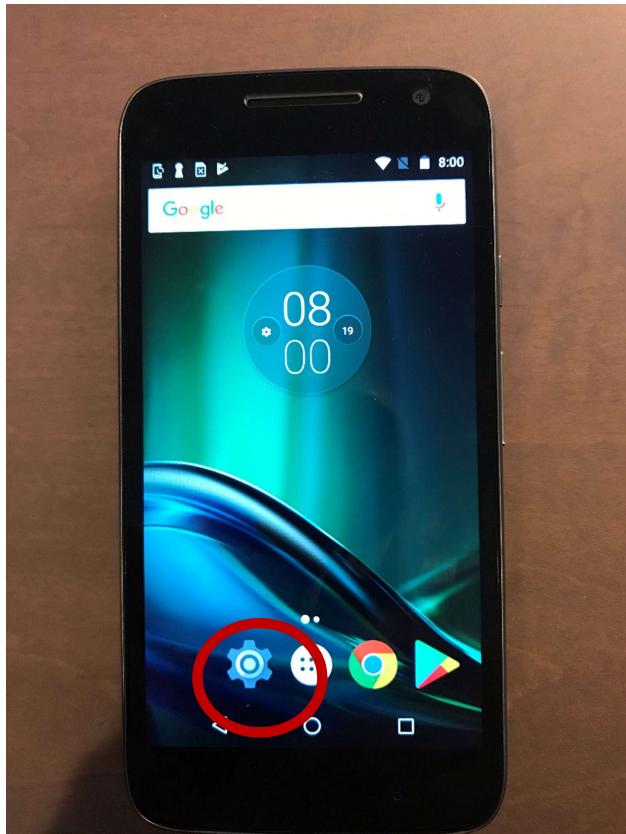
#### Guide

- The screen will return to the 'Display' settings page
- The page will display your new setting of 'Stay in Portrait view'
- Congratulations you have completed the Display changes.

## Step 6 – Change Security Settings

### 1. Start off at Phone Home Page

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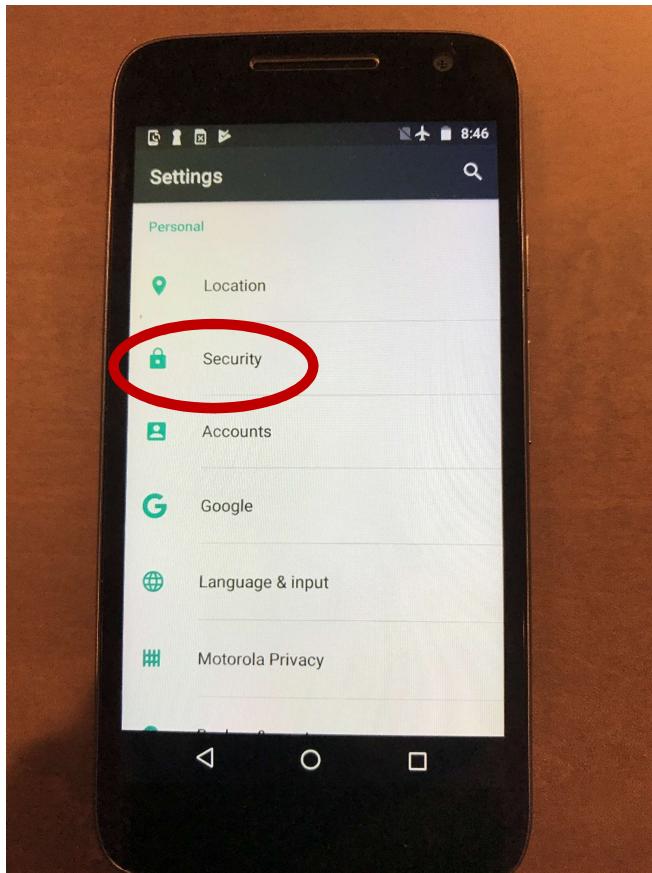


#### Guide

- The Next thing we need to do is change the security settings. Remember this is not a phone it is a robot wireless control system!
- Start off at the Home screen similar to the one on the left.
- Click the Settings Icon (See red oval)

## Step 6 – Change Security Settings

### 2. Select ‘Security’ Settings

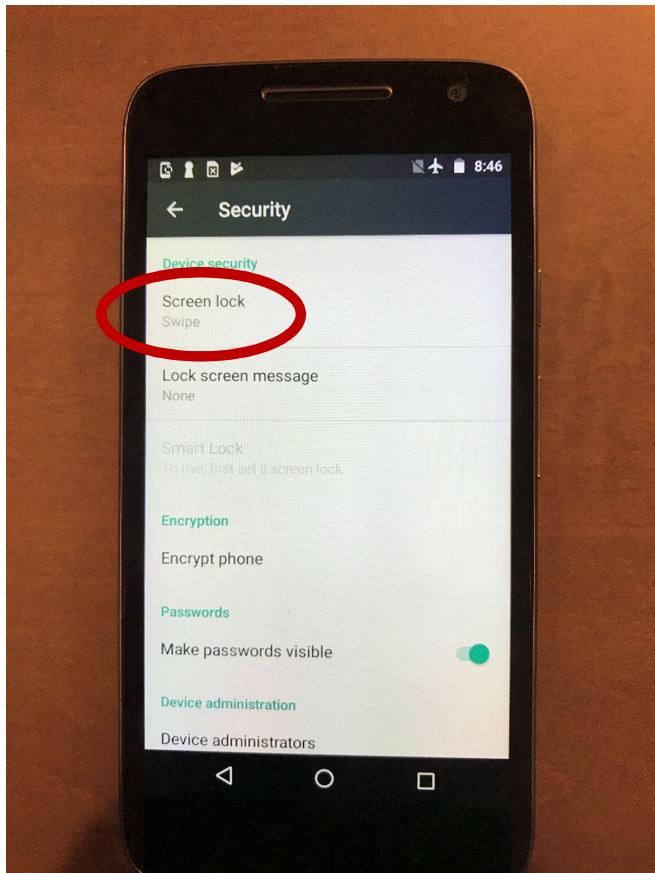


#### Guide

- This will display the ‘Settings’ page
- Scroll down the page until you find Security.
- Click the ‘Security’ button (See red oval)

## Step 6 – Change Security Settings

### 3. Select ‘Screen Lock’ Settings



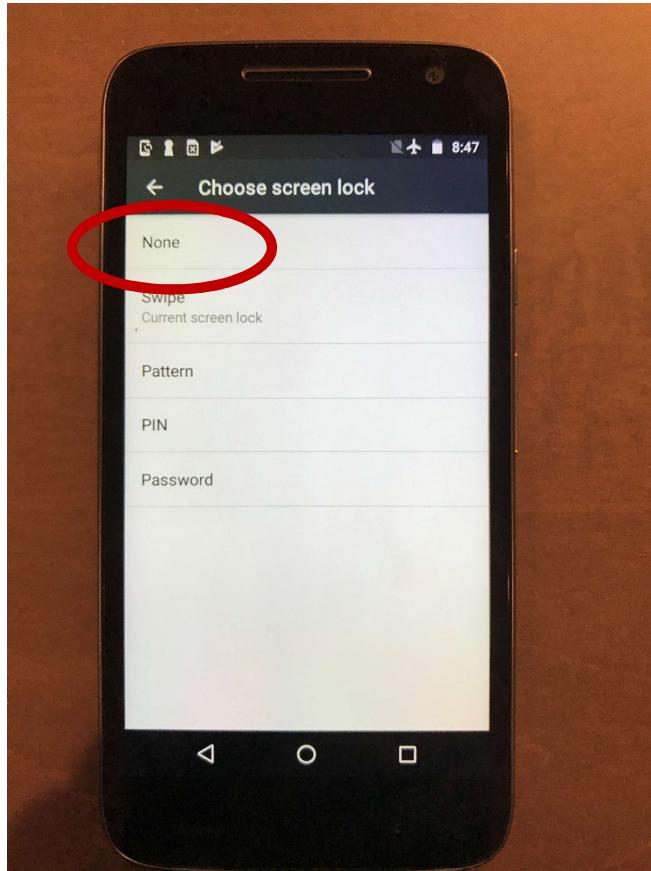
#### Guide

- This will display the ‘Security’ Settings page
- Click the ‘Screen lock’ button (See red oval)

## Step 6 – Change Security Settings

### 4. Select ‘None’

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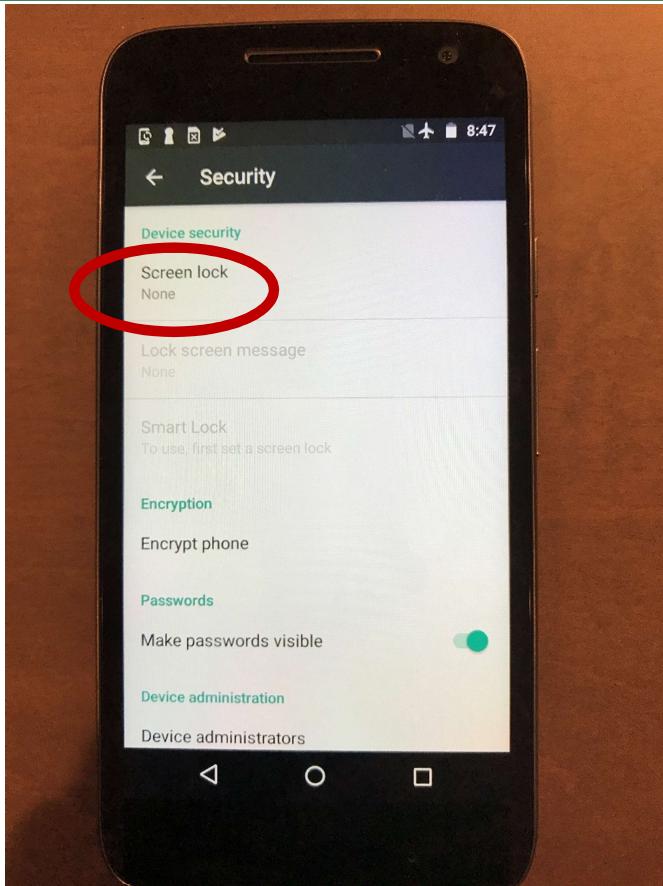


### Guide

- This will display the ‘Screen lock’ Settings page
- Click the ‘None’ button (See red oval)

## Step 6 – Change Security Settings

### 5. Screen Lock Confirmation

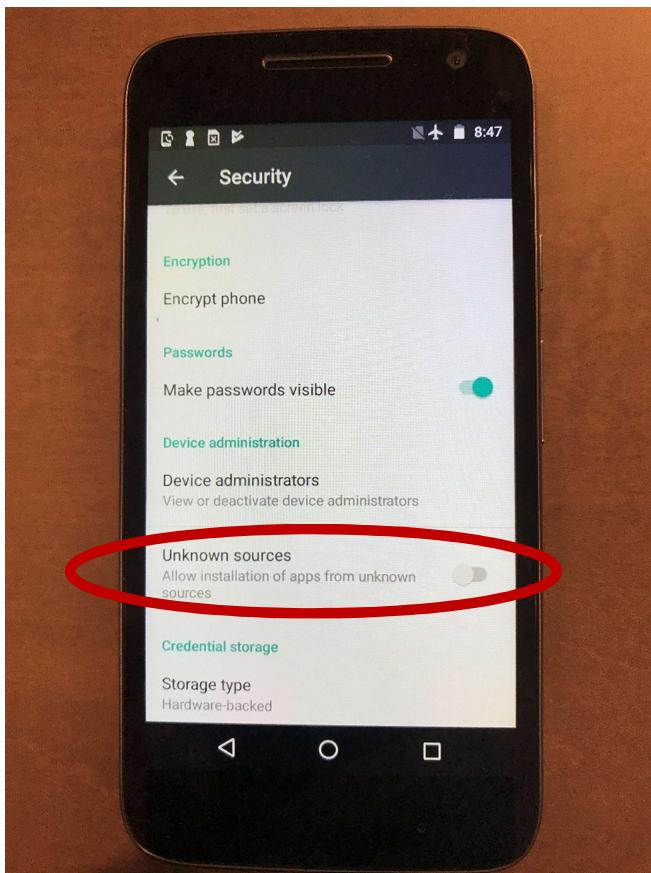


#### Guide

- This will display the 'Security' Settings page
- The screen lock setting will not confirm 'None' (See red oval)

## Step 6 – Change Security Settings

### 6. Find ‘Unknown Sources’



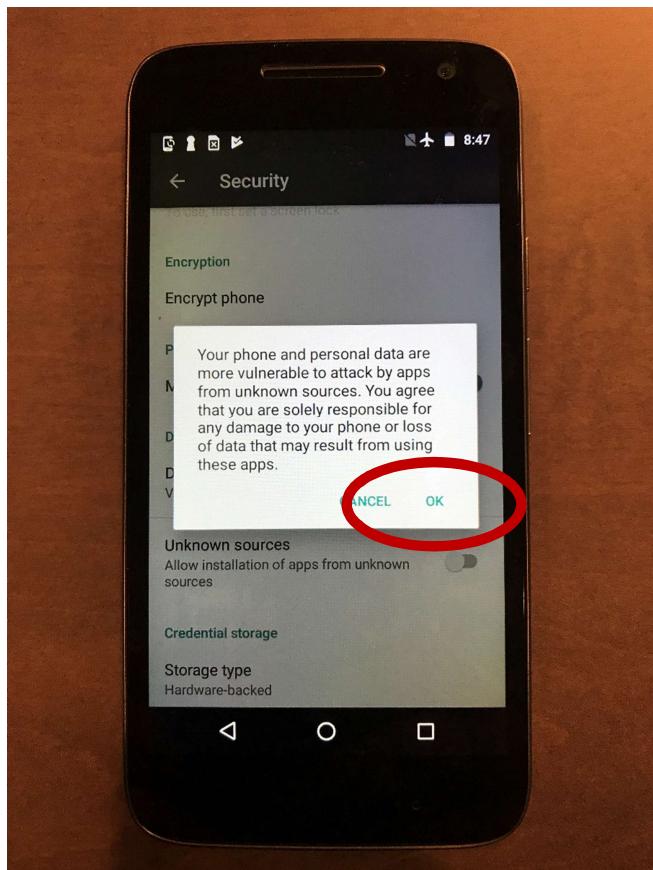
#### Guide

- On the Security Page, scroll down until you find ‘Unknown Sources’
- Click on ‘Unknown sources’ button. (See red oval)

## Step 6 – Change Security Settings

### 7. Click 'OK'

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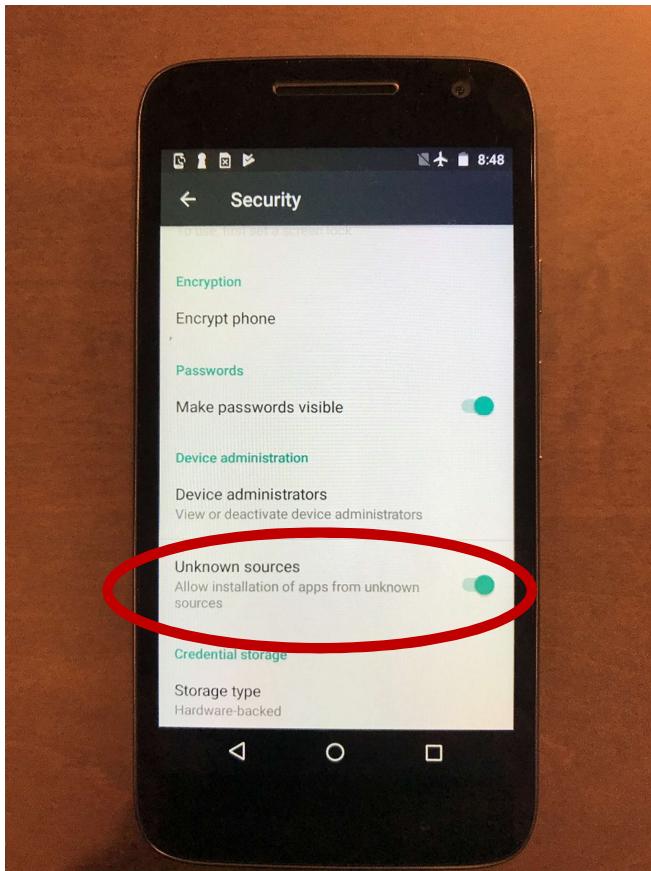


### Guide

- The phone will display a popup warning message.
- Setting Unknown sources allows Android Studio to download applications to your phone without a security warning message.
- Click on 'OK' button. (See red oval)

## Step 6 – Change Security Settings

### 8. Unknown Sources Confirmation



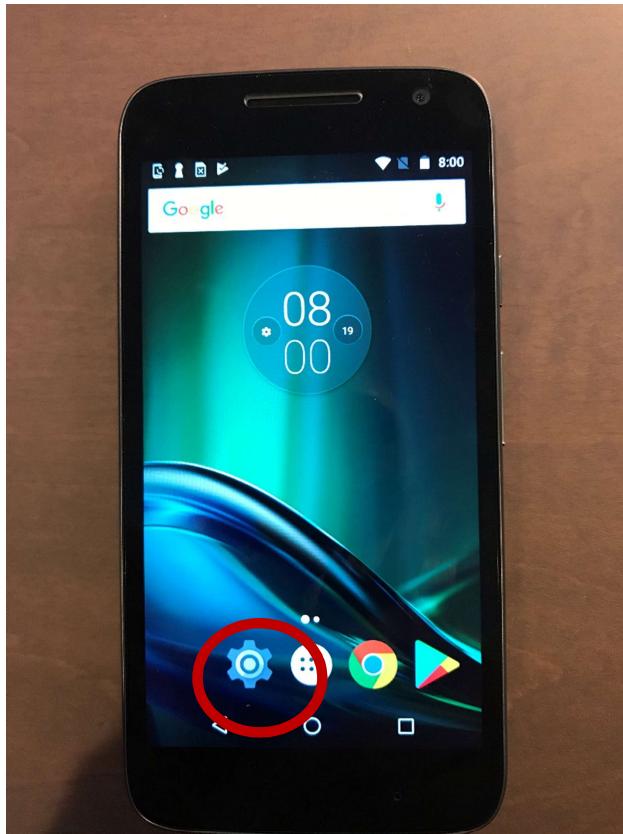
#### Guide

- The phone will return to the Security Settings page
- Your new unknown sources selection will be displayed. (See red oval)
- Congratulations you have completed the security settings changes!

## Step 7 – Configure Wireless

### 1. Start off at Phone Home Page

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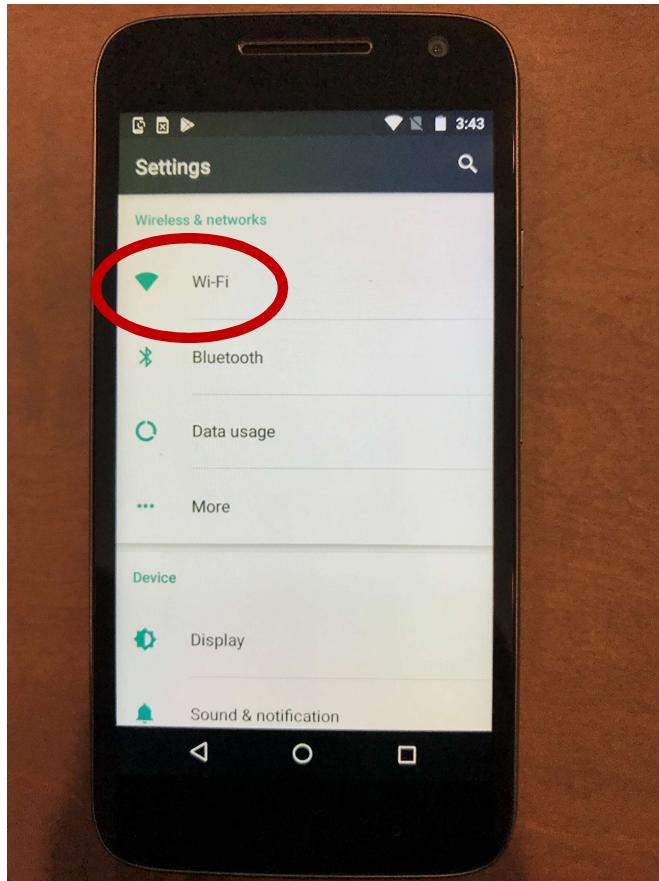


#### Guide

- The Next thing we need to do is setup the Wireless radios
- Start off at the Home screen similar to the one on the left.
- Click the Settings Icon (See red oval)

## Step 7 – Configure Wireless

### 2. Select Wi-Fi Settings

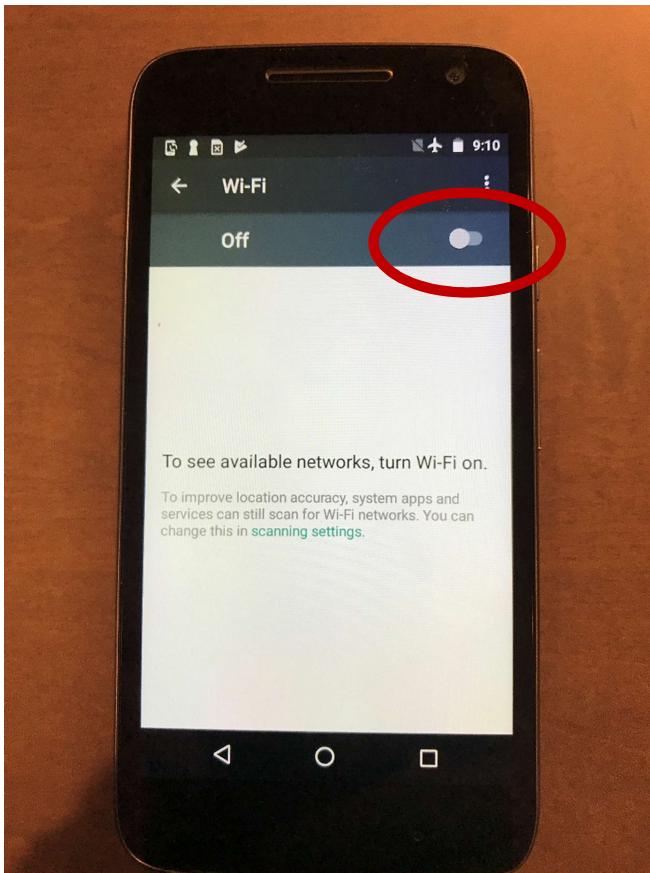


#### Guide

- This will take you to the Settings Page (Similar to the screen on the left)
- Click the Wi-Fi (See red oval)

## Step 7 – Configure Wireless

### 3. Select Wi-Fi Settings

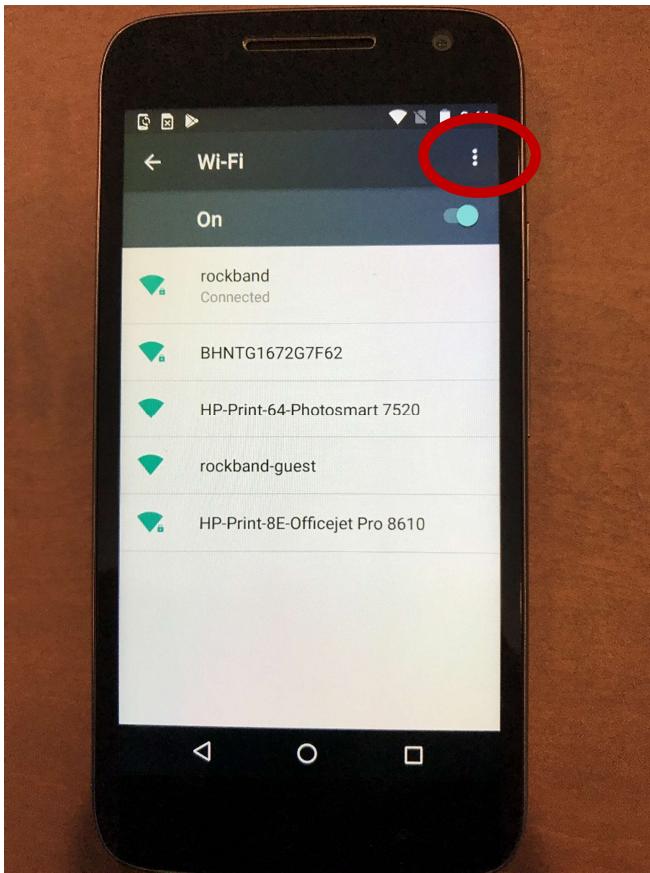


#### Guide

- Because we turned on Airplane mode earlier in the setup, we need to turn on WiFi now.
- Click the Wi-Fi button to slide to the right on turn on Wi-Fi. (See red oval)

## Step 7 – Configure Wireless

### 4. Select Wi-Fi Options

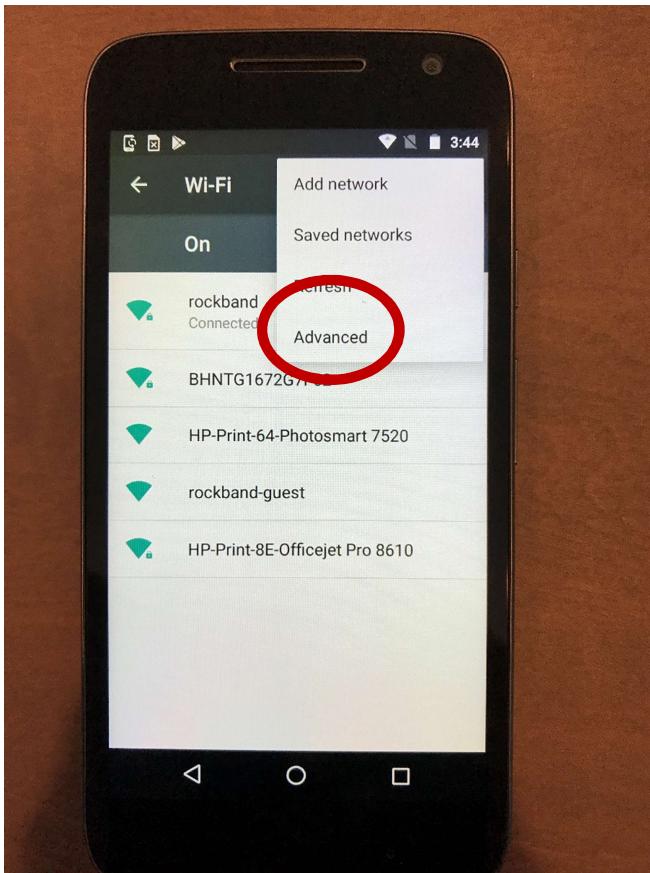


#### Guide

- This will take you to the WI-FI Page (Similar to the screen on the left)
- Click the Options button – three vertical dots (See red oval)

## Step 7 – Configure Wireless

### 5. Select Advanced options

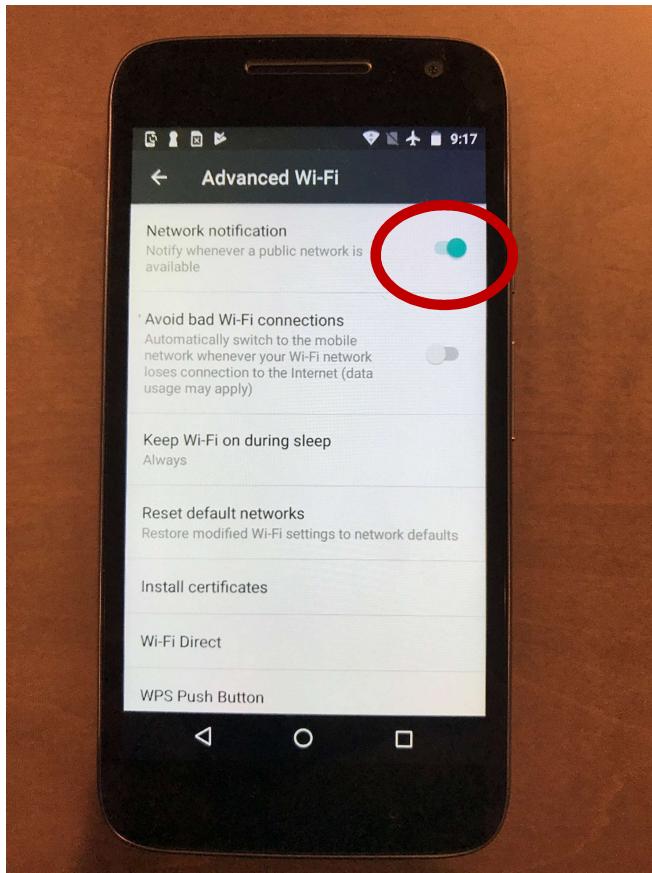


#### Guide

- This will open the WI-FI Sub-menu (Similar to the screen on the left)
- Click the “Advanced” button (See red oval)

## Step 7 – Configure Wireless

### 6. Turn Off Network Notifications

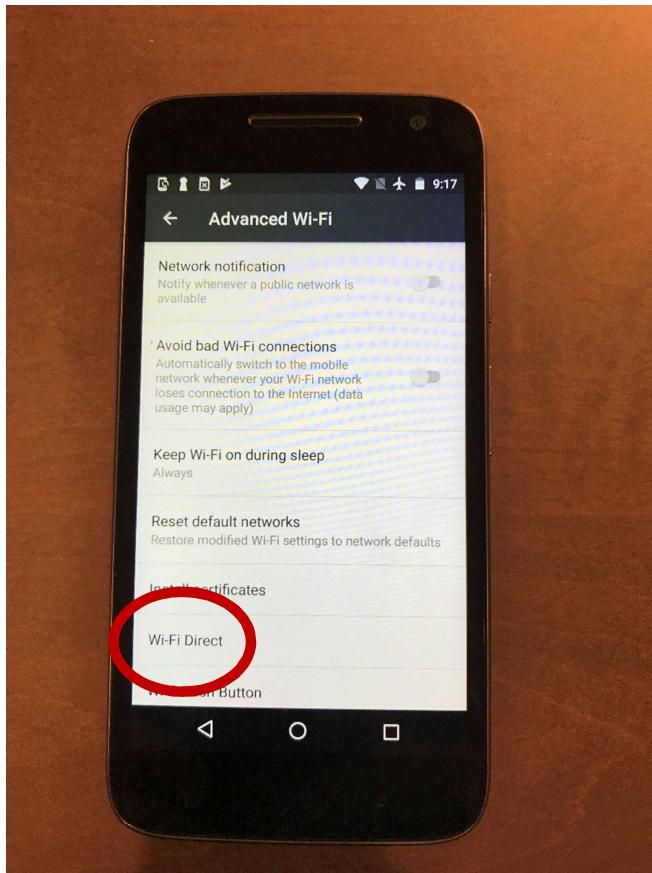


#### Guide

- This will open the WI-FI Sub-menu (Similar to the screen on the left)
- Network notification notifies the user when a new network is discovered. As this is a robot controller we do not want things interrupted when a new network is found.
- Click the “Network Notification” button to turn it off (See red oval)

## Step 7 – Configure Wireless

### 7. Find Wi-Fi Direct

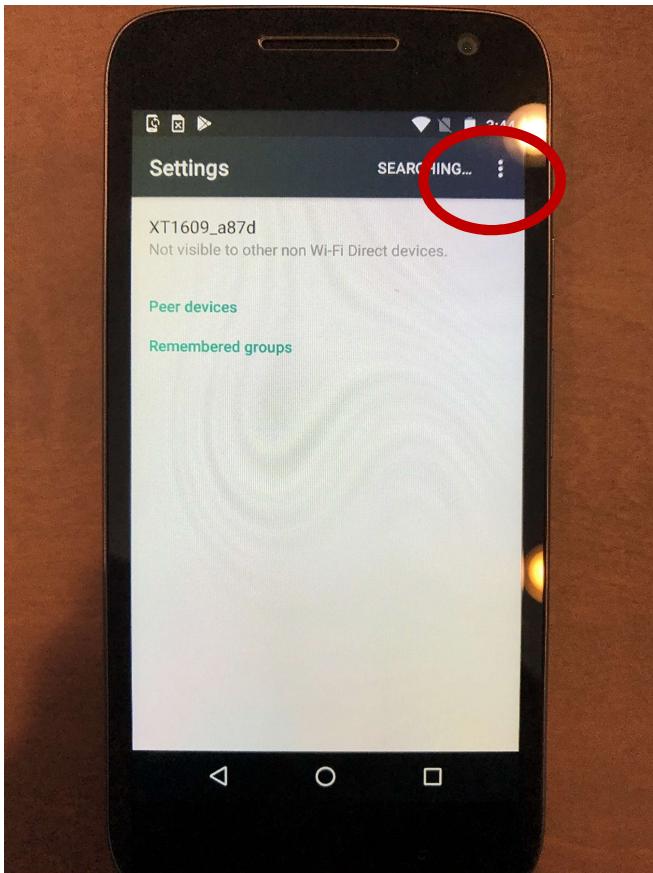


#### Guide

- Network Notification will now show off.
- Scroll down the page until you find Wi-Fi Direct
- Click Wi-Fi Direct" button (See red oval)

## Step 7 – Configure Wireless

### 8. Select Wi-Fi Direct Options

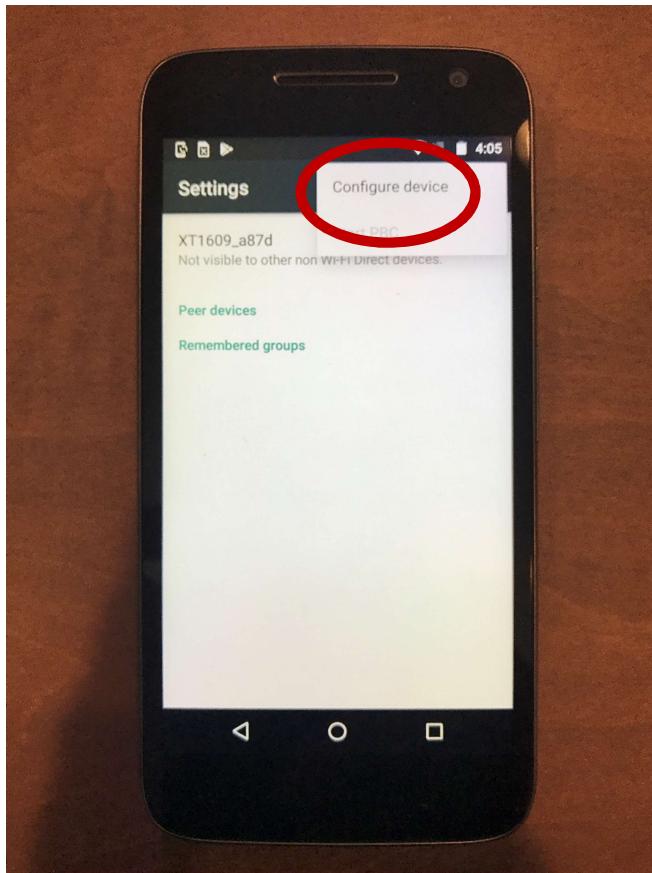


#### Guide

- This will take you to the Settings Page for Wi-Fi Direct (Similar to the screen on the left)
- It shows the current network name of your phone
- Click the Options button – three vertical dots (See red oval)

## Step 7 – Configure Wireless

### 9. Select Configure Device

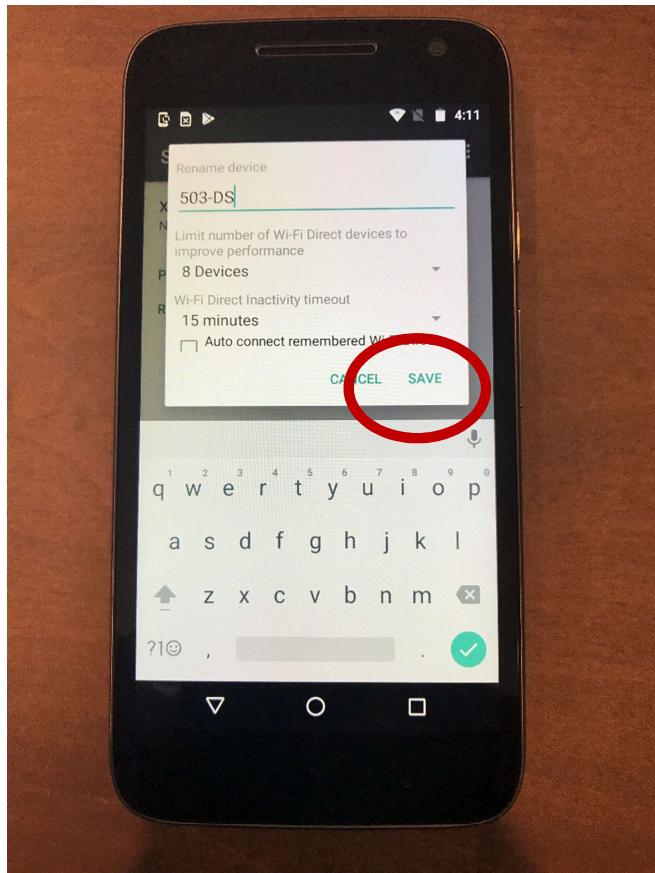


#### Guide

- This will take you to the Options Page of the Wi-Fi Direct Settings. (Similar to the screen on the left)
- Click the “Configure device” button (See red oval)

## Step 7 – Configure Wireless

### 10. Save Changes

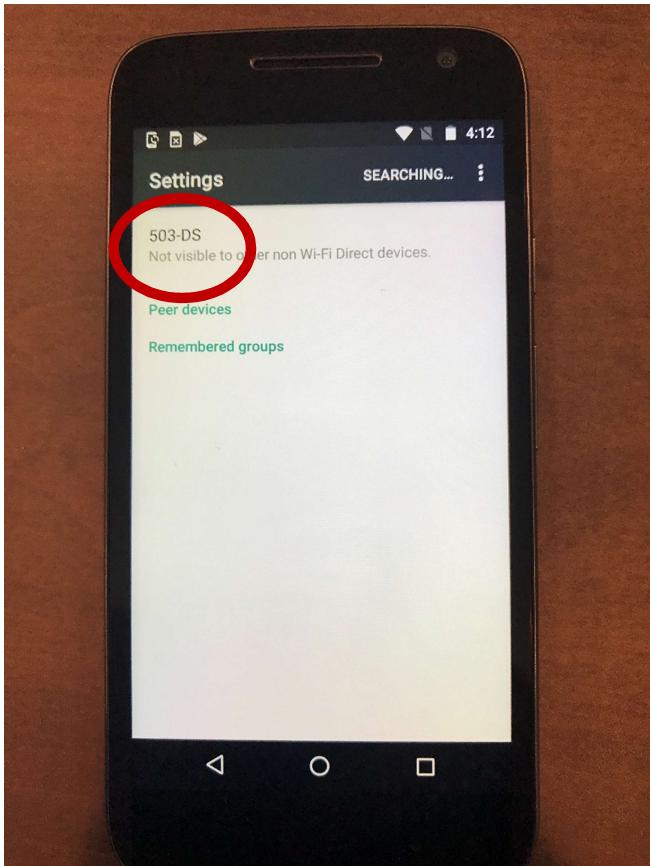


#### Guide

- This will Allow you to rename your phone (Similar to the screen on the left)
- Enter the new name according to the FIRST standard:
  - The first portion of the name will be the team number
  - The driver station will have a suffix of –DS
  - The Robot Controller will have a suffix of –RC
  - Example:
    - 503-DS or 503-RC
- In this example we have used team number 503 and named the phone as a Driver Station
- The other settings should be left at their default values
- Click “Save” button (See red oval)

## Step 7 – Configure Wireless

### 11. Device Rename Complete – Now go back and do it again for the other phone



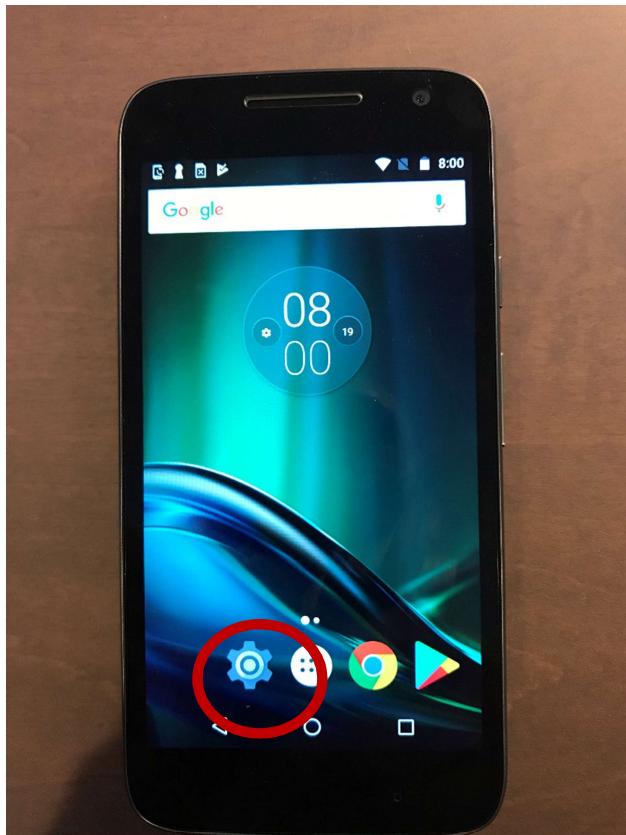
#### Guide

- When the rename process has completed the phone will take you back to the Wi-Fi Direct settings page (Similar to the screen on the left)
- This shows that the phone has been renamed as requested. (See red oval)
- Now complete the same steps over again with the other phone, except this time name the device XXXX-RC for Robot Controller where XXXX is your team number.
- Once you have both phones renamed You can move onto the next step.

## Step 8 – Enable USB Debugging Mode

### 1. Start off at Phone Home Page

---

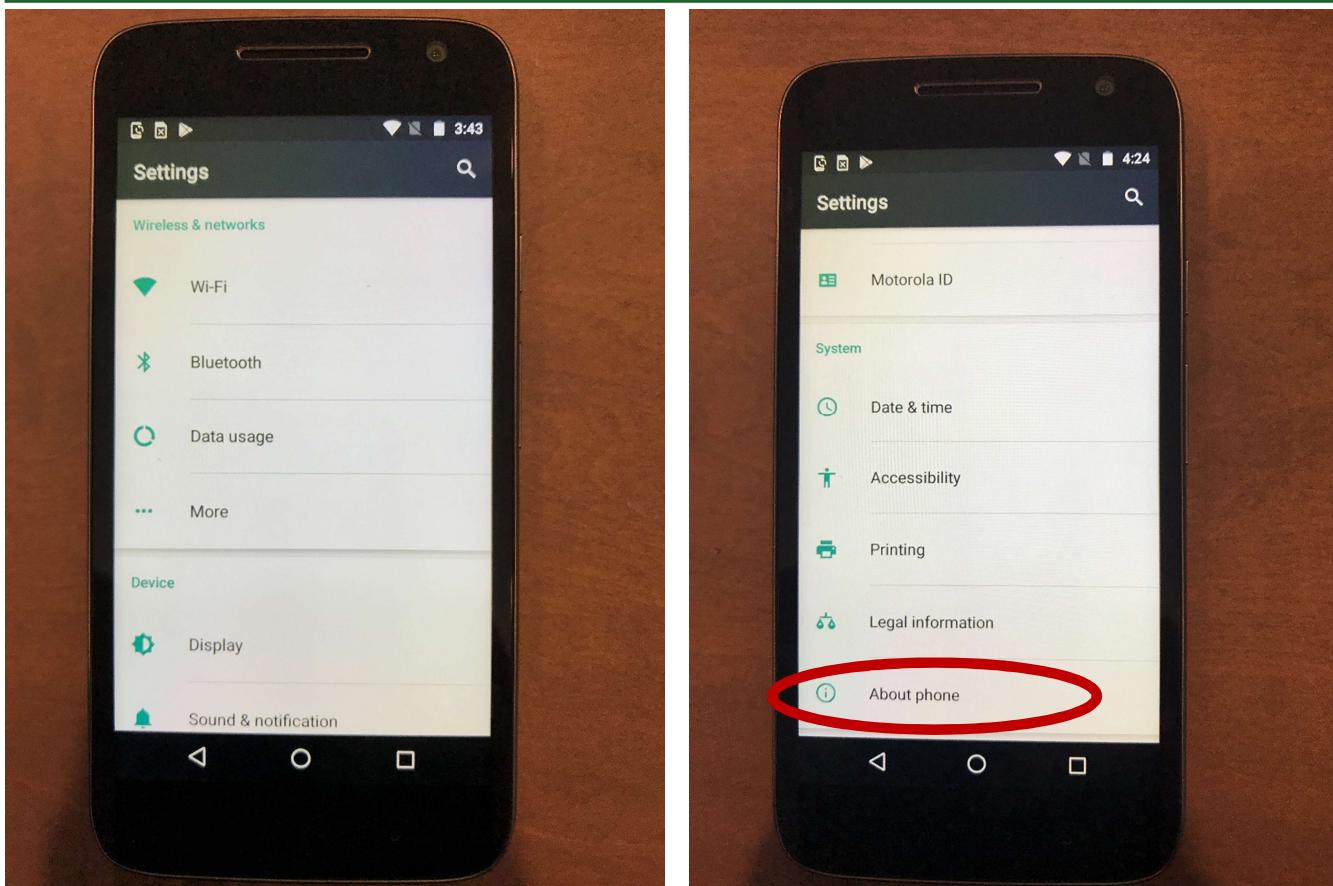


#### Guide

- The Next thing we need to do is enable Airplane mode.
- Start off at the Home screen similar to the one on the left.
- Click the Settings Icon (See red oval)

## Step 8 – Enable USB Debugging Mode

### 3. Select About Phone

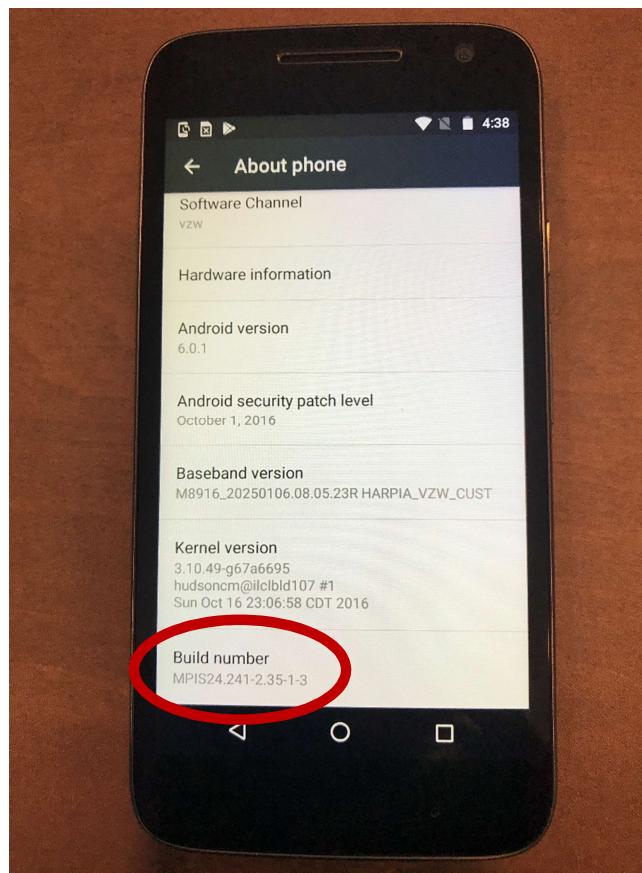
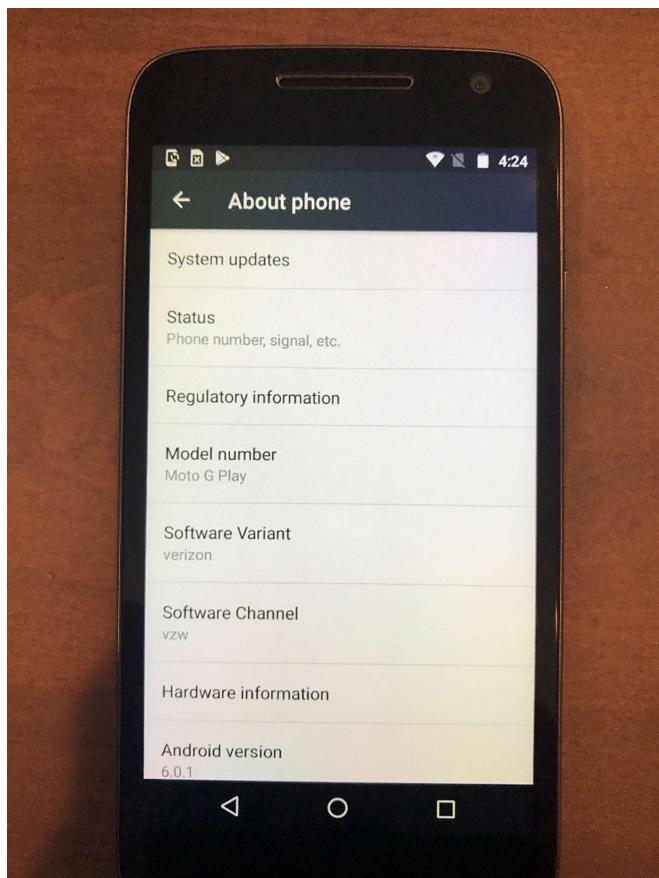


### Guide

- This will take you to the Settings Page (Similar to the screen on the far left)
- Scroll down the page until you see 'About Phone' (Similar to the screen on the left)
- Click the 'About phone' option (See red oval)

## Step 8 – Enable USB Debugging Mode

### 4. Click Build Number 7 Times



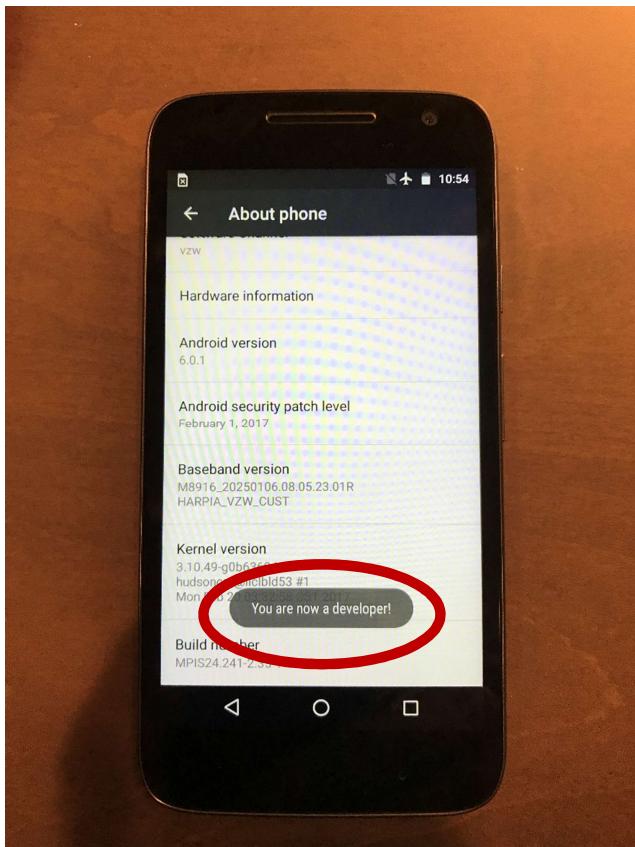
#### Guide

- This will take you to the About phone page (Similar to the screen on the far left)
- Scroll down the page until you see “Build Number” (Similar to the screen on the left)
- Click the Build Number 7 times (See red oval)

## Step 8 – Enable USB Debugging Mode

### 5. You are now a Developer!

---

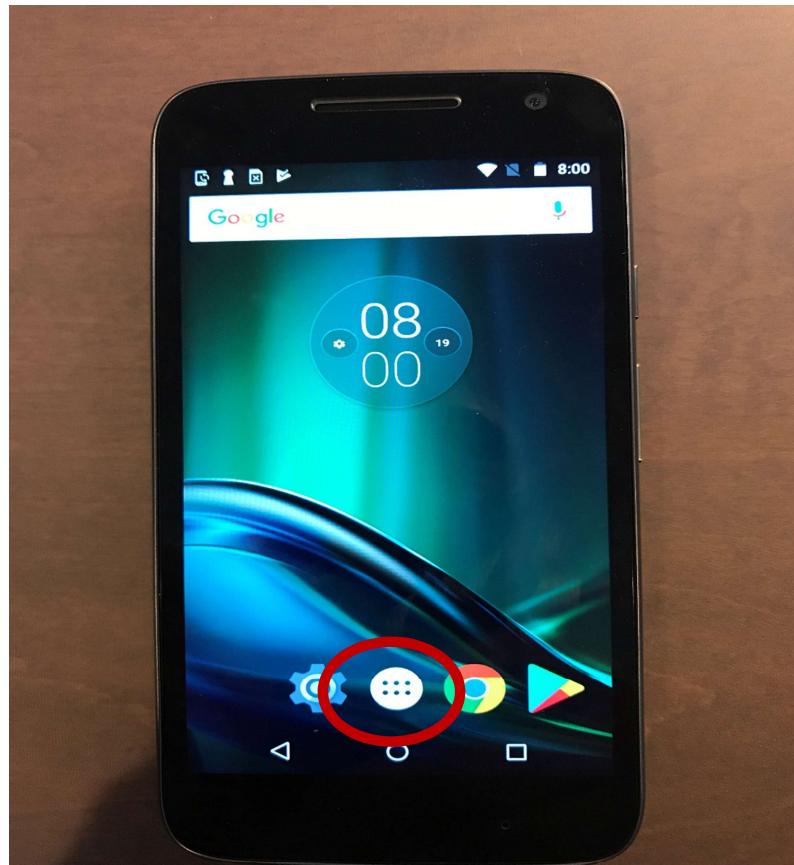


### Guide

- Once you complete 7 clicks a popup message will display that says “You are now a developer!”
- The popup only displays for a few seconds and will disappear quickly so be careful to watch the screen.
- Congratulations you have enabled USB debugging on the Robot Controller!!!

## Step 9 – Configure Developer Options

### 1. Start off at Phone Home Page



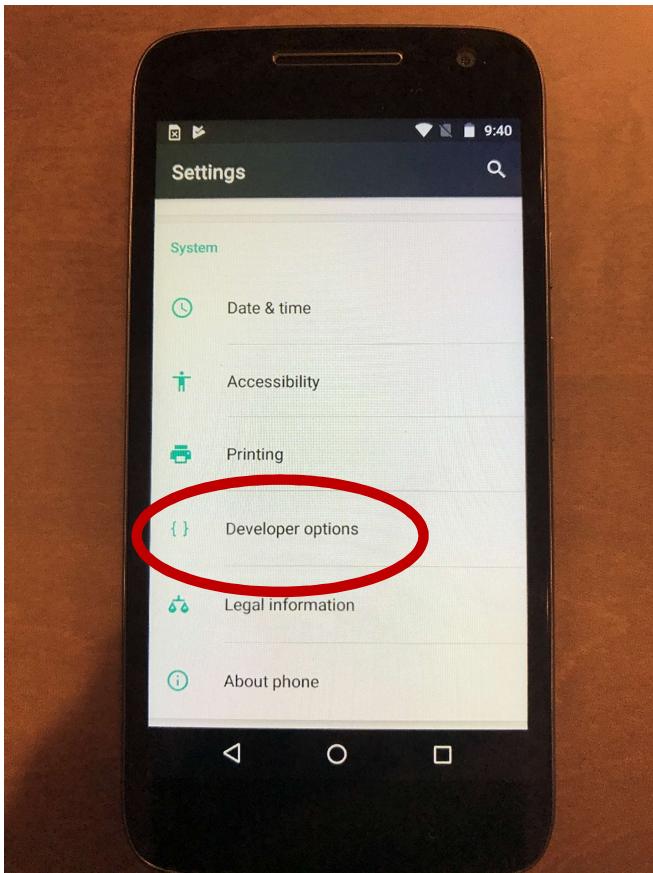
#### Guide

- Start off at the Home screen similar to the one on the left.
- Click the Applications button (See red oval)

## Step 9 – Configure Developer Options

### 2. Find Developer Options

---

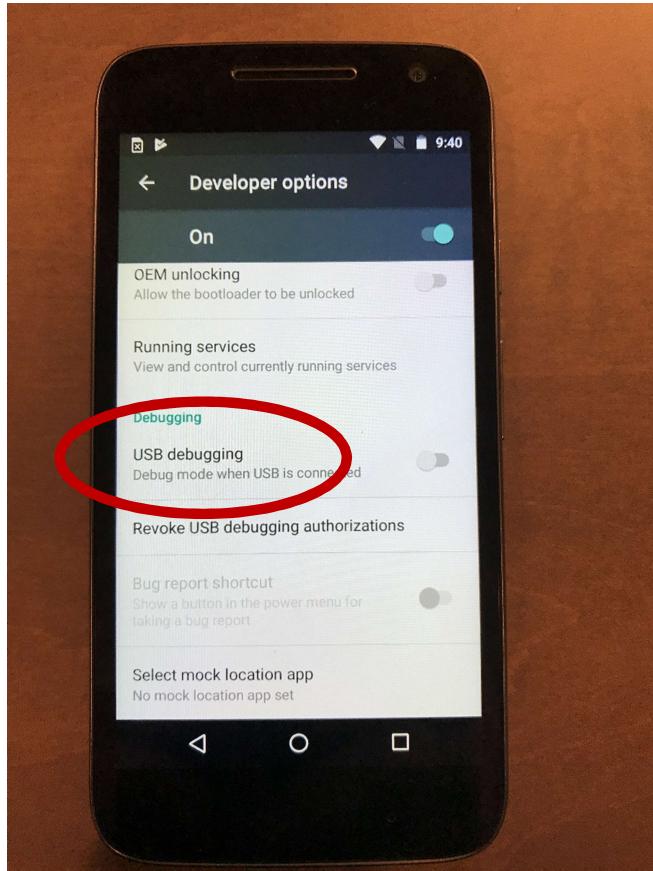


#### Guide

- The phone will display the Settings page similar to the one on the left.
- Scroll down the page looking for 'Developer options'
- Click the 'Developer options' button (See red oval)

## Step 9 – Configure Developer Options

### 3. Find USB debugging



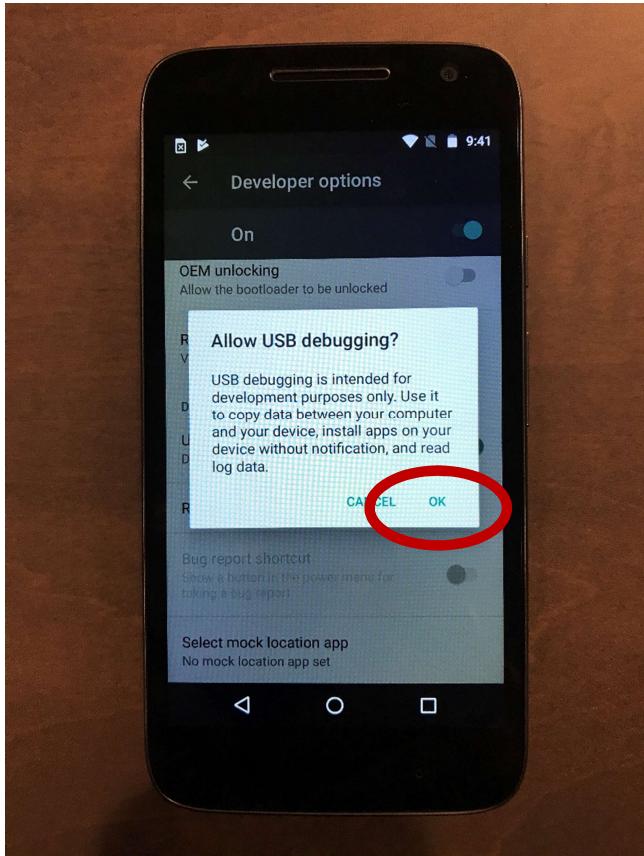
#### Guide

- The phone will display the Developer Options page similar to the one on the left.
- Scroll down the page looking for 'USB Debugging'
- Click on 'USB debugging' (see red oval)

## Step 9 – Configure Developer Options

### 4. Click OK

---

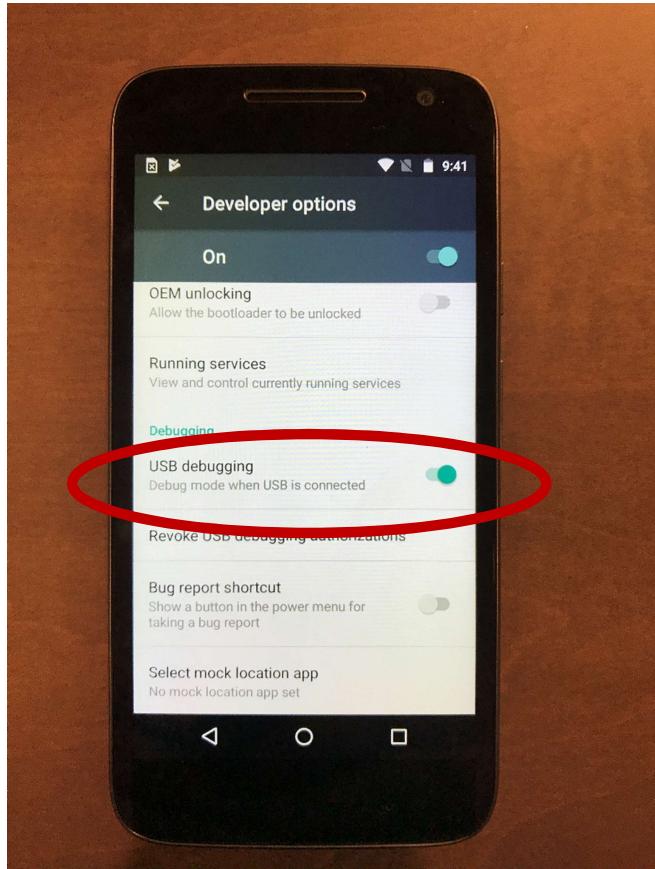


### Guide

- The phone will display a warning pop-up window for USB Debugging
- Click the 'OK' button (See red oval)

## Step 9 – Configure Developer Options

### 5. USB Debugging Confirmation

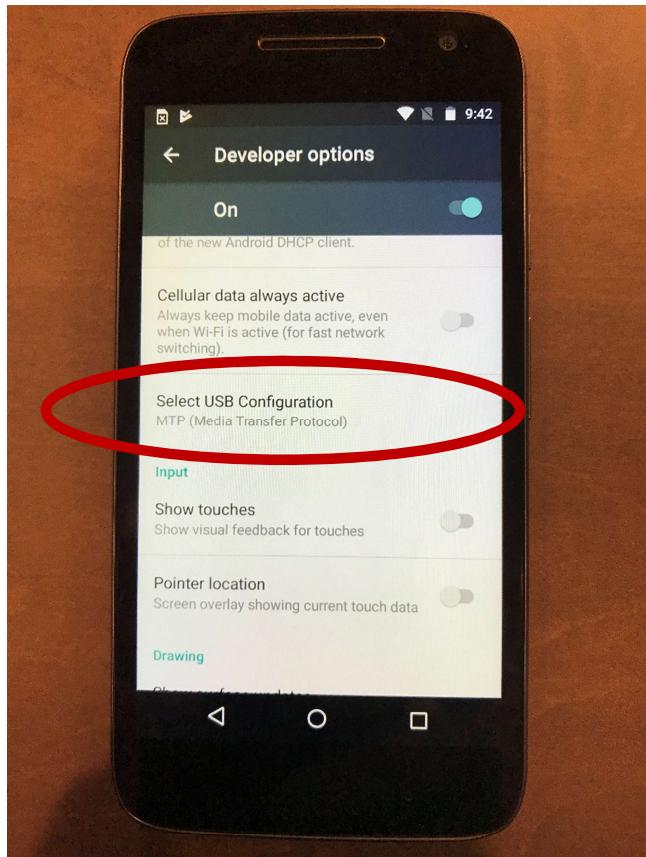


#### Guide

- The phone will return to the developer options page and display the new setting for USB debugging
  - (See red oval)

## Step 9 – Configure Developer Options

### 6. Find Select USB Configuration



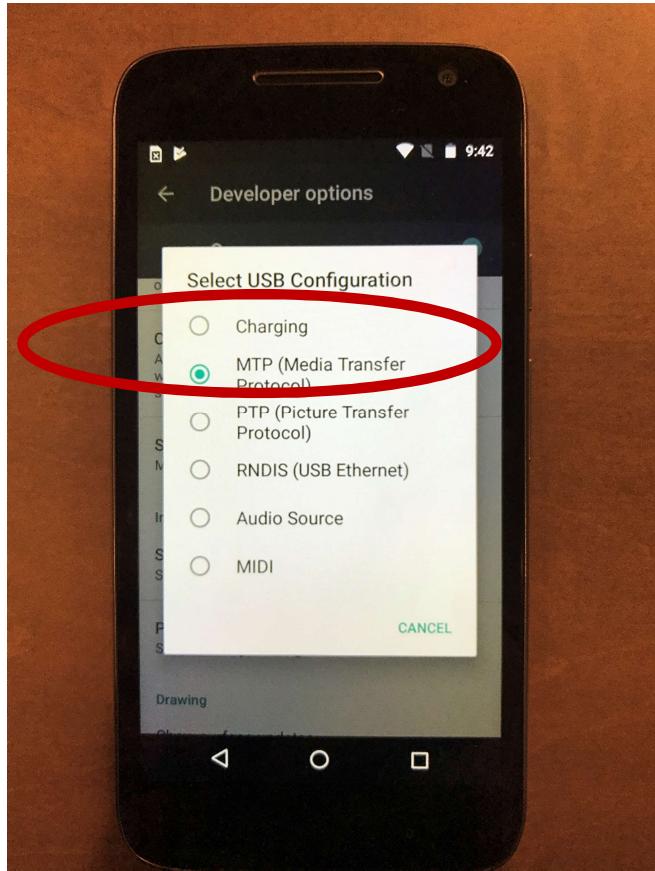
#### Guide

- Scroll down the Developer options page looking for 'Select USB Configuration'
- Click on 'Select USB Configuration' (See red oval)

## Step 9 – Configure Developer Options

### 7. Change to Charging

---

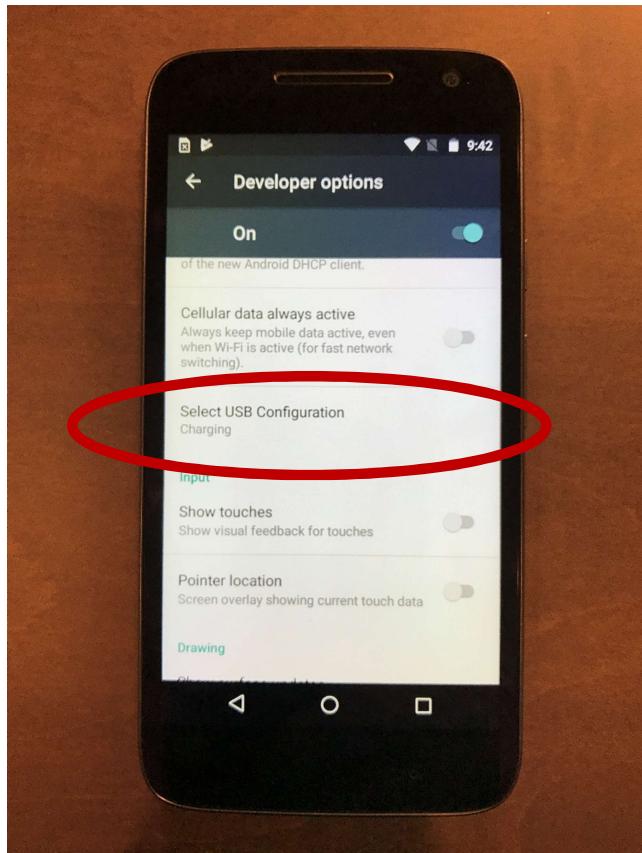


#### Guide

- The phone will display a pop-up options list with MTP selected.
- Click on 'Charging' (See red oval)

## Step 9 – Configure Developer Options

### 8. USB Configuration Confirmation



#### Guide

- The phone will return to the developer options page and display the new Select USB configuration option of 'charging'. (See red oval)
- Congratulations you have completed the developer options configuration!!!

Don't Give Up

---



*Don't give up yet  
We are almost there ...*

## Step 10 – Deploy the Robot Controller

### 1. Start up Android Studio

---

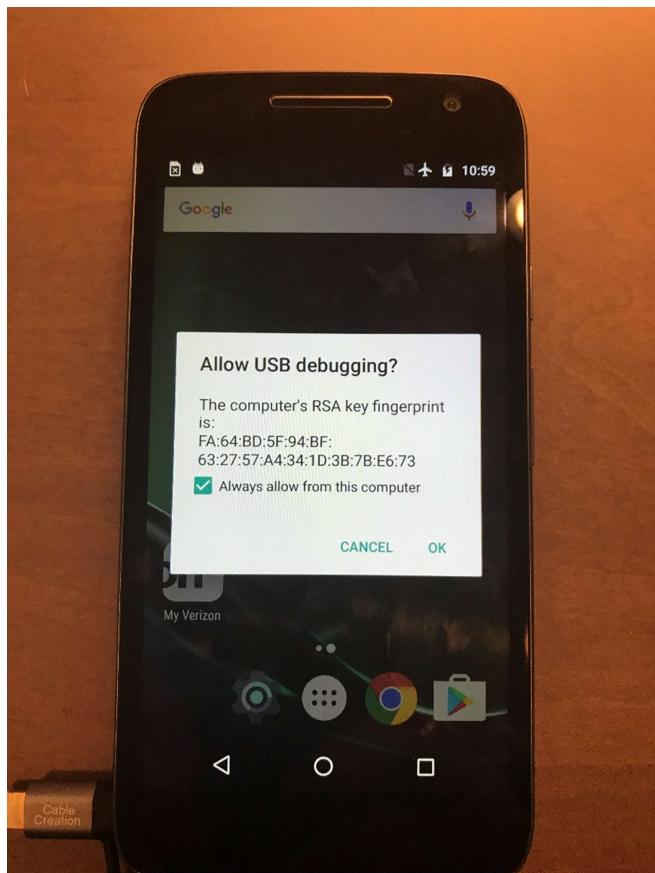


#### Guide

- Go to the Windows Start Menu
- Click on “All Programs”
- Locate the Android Studio folder, click to open folder
- Select Android Studio application by clicking on it
- You should see the start up screen on the left

## Step 10 – Deploy the Robot Controller

### 2. Plug phone into Developer Workstation – Allow USB Debugging

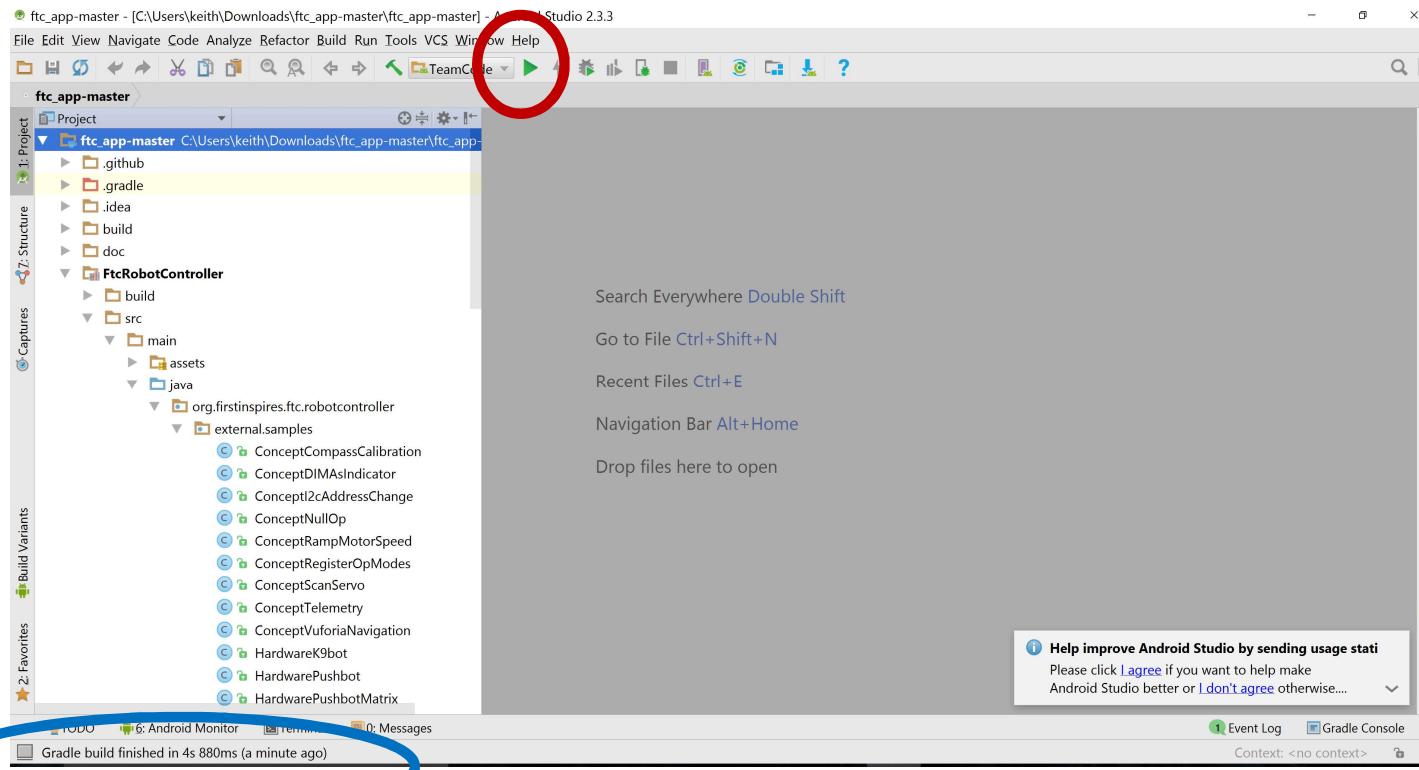


#### Guide

- Plug the phone using the supplied USB cable into the USB port on the developer workstation.
- Once the computer recognizes the plugged in device a popup window will display asking to Allow USB debugging.
- On the Android phone
  - Note that the cell phone is now displaying the ‘Allow USB debugging’ window
  - Check the box that says ‘Always allow from this computer’
  - Click ‘OK’
- If you see ‘Unauthorized’ message on PC:
  - Click the OK on the Android phone Allow USB debugging message
  - Click ‘Cancel’ on the windows PC
  - Then Click ‘Run’ button again

## Step 10 – Deploy the Robot Controller

### 2. Open the FIRST FTC\_APP-master Project

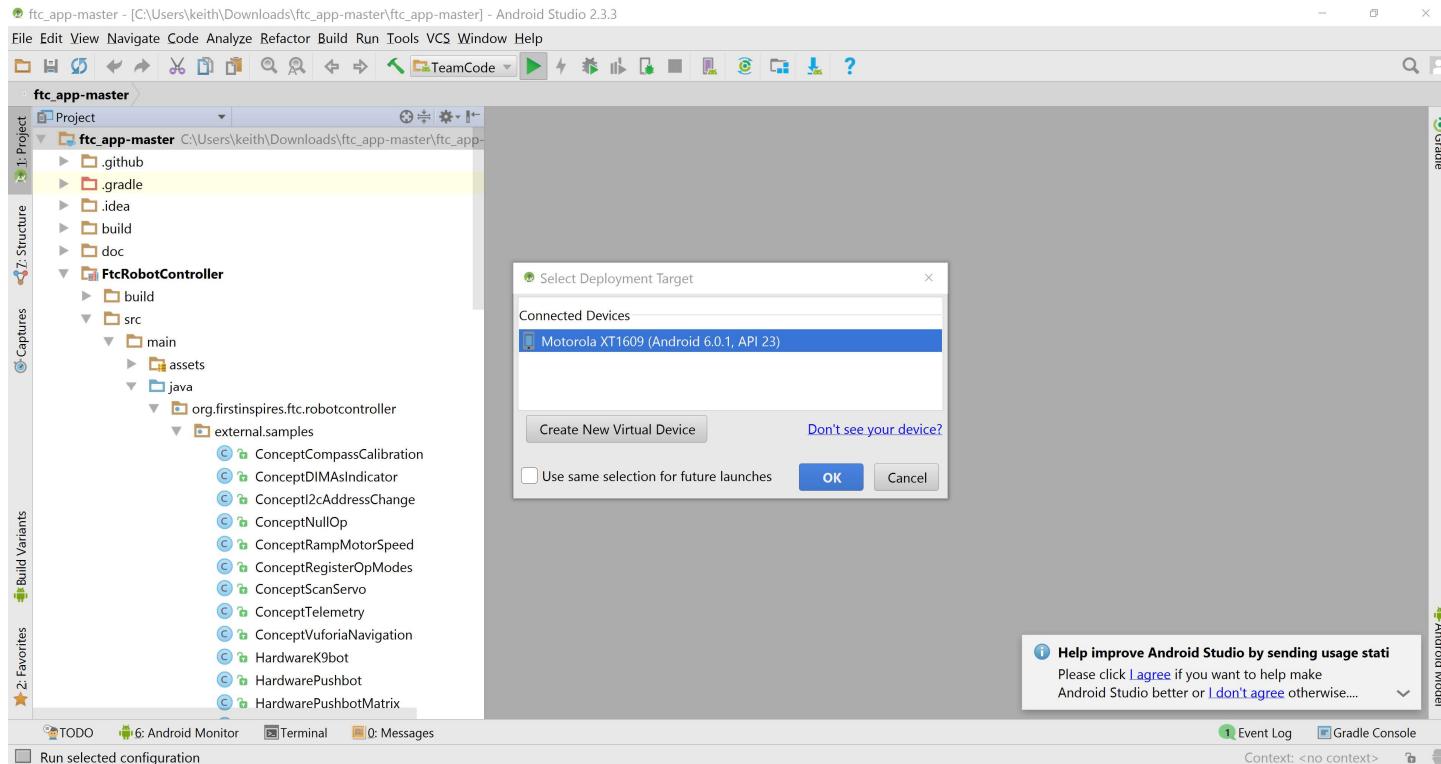


### Guide

- Android Studio will pick up where it left off by loading the FTC\_APP-master project. If this is your first time, select:
  - File, Open
  - FTC\_APP-master from the directory you downloaded it too
- Make sure that the Gradle build has finished before proceeding (See blue oval)
- Plug the USB cable between the Robot controller phone and the PC
- Find the green right arrow button (RUN) to compile the application the application
- Click green arrow. i.e. “Run”

## Step 10 – Deploy the Robot Controller

### 3. Android Studio now shows an Android Device

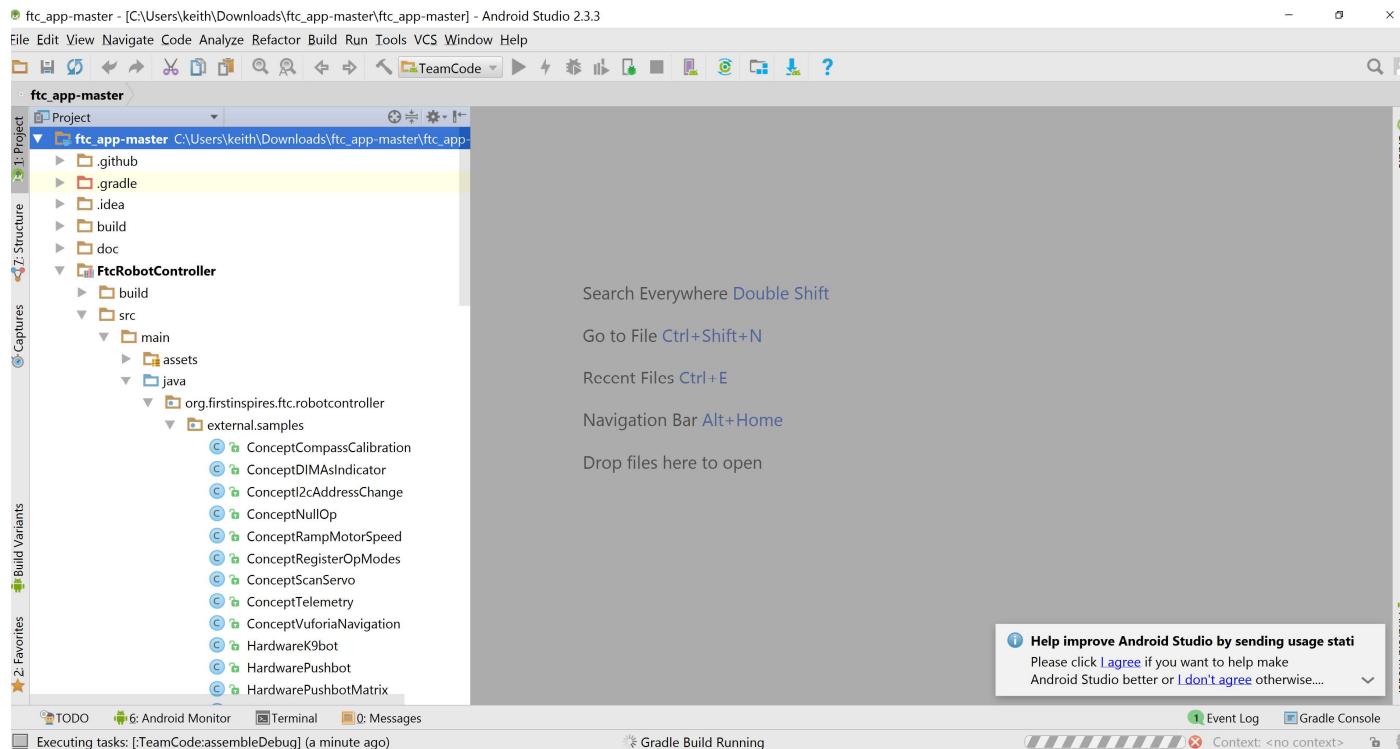


### Guide

- Android Studio has found the Robot Controller phone.
- Click 'OK' to download software

# Step 10 – Deploy the Robot Controller

## 4. Gradle Build is running

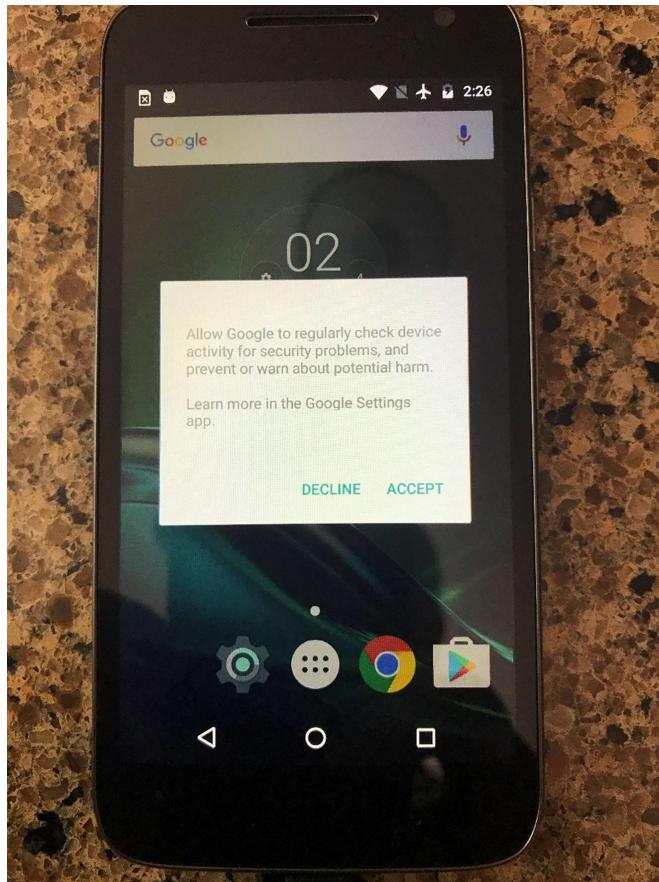


### Guide

- Android Studio shows that the gradle build is now running. i.e. the compile is in progress

## Step 10 – Deploy the Robot Controller

### 5. Security Confirmation

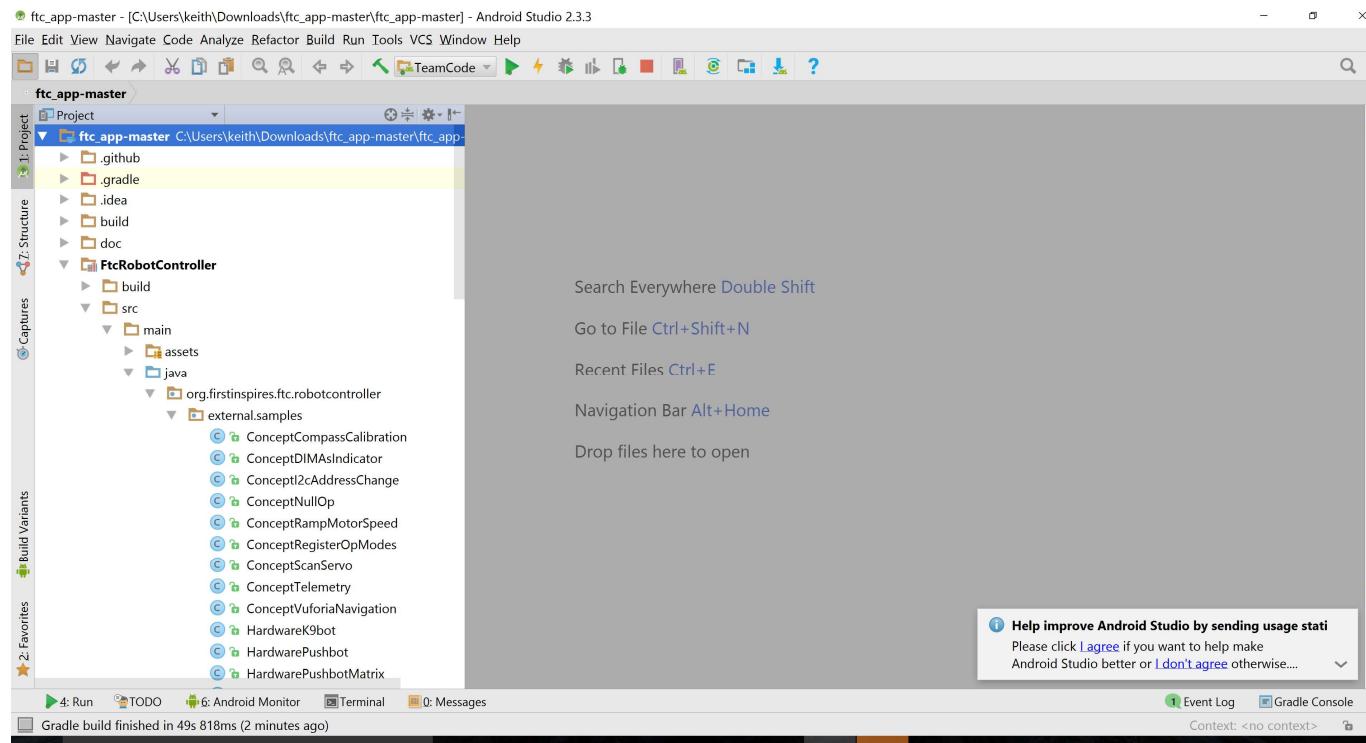


#### Guide

- You may see a screen similar to the one on the left.
- This screen asks to confirm that Google will periodically check for security issues and inform you if it finds an issue.
- Click “ACCEPT”
- If this screen does not display, don’t worry you most likely confirm security scans at another step along the way. Just move on to the next step.

## Step 10 – Deploy the Robot Controller

### 6. Gradle Build is has successfully completed !!

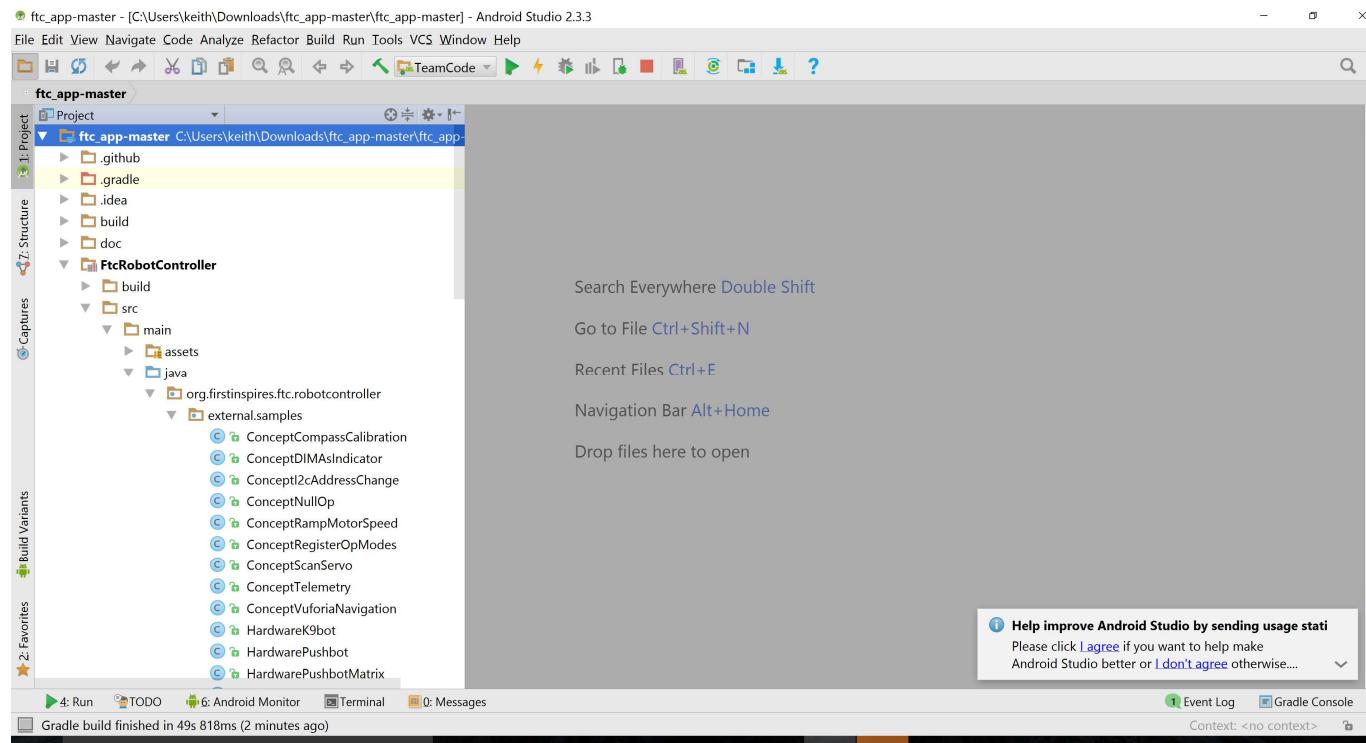


### Guide

- Compile has successfully completed !!!

## Step 10 – Deploy the Robot Controller

### 7. Gradle Build is has successfully completed !!



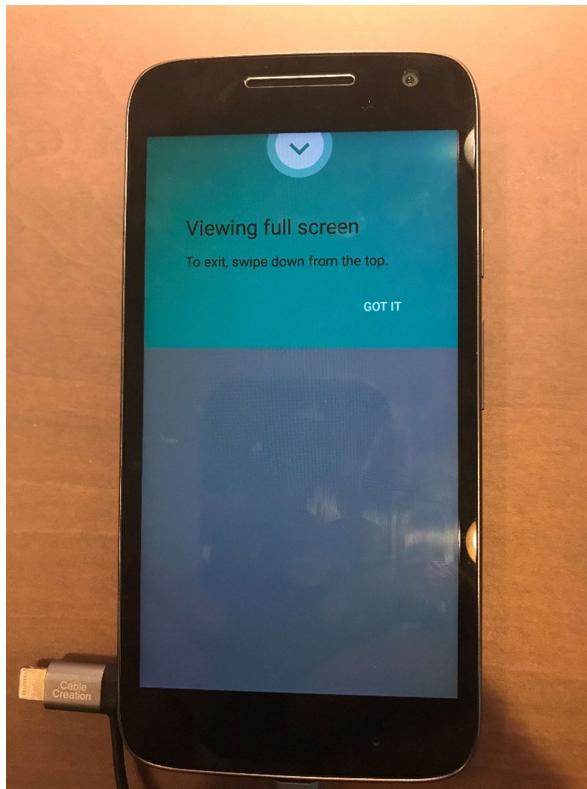
### Guide

- Compile has successfully completed !!!

## Step 10 – Deploy the Robot Controller

### 8. Application Starts on Robot Controller

---



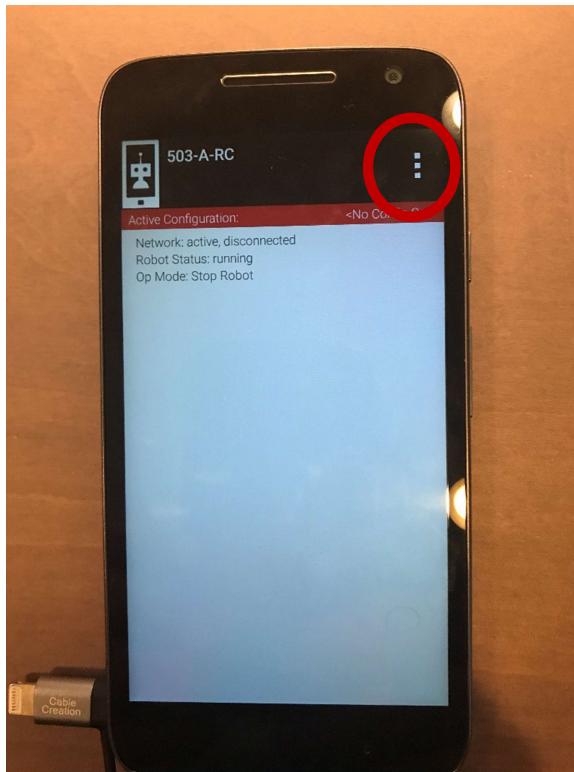
#### Guide

- The Android phone will display the page at the left indicating that the application has started.

## Step 10 – Deploy the Robot Controller

### 8. FTC Robot Controller Application

---

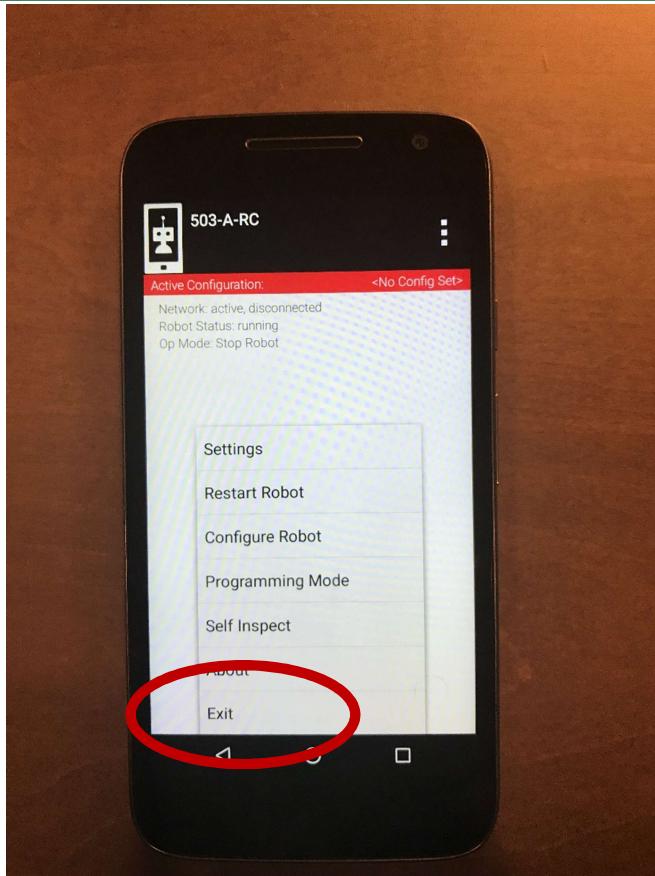


#### Guide

- The phone will display the FTC Robot Controller application that you loaded from the developer workstation.
- This means that you have successfully deployed the application!!!
- Select the Options page (the three vertical dots) See red oval.

## Step 10 – Deploy the Robot Controller

### 10. Close the FTC Robot Controller Application

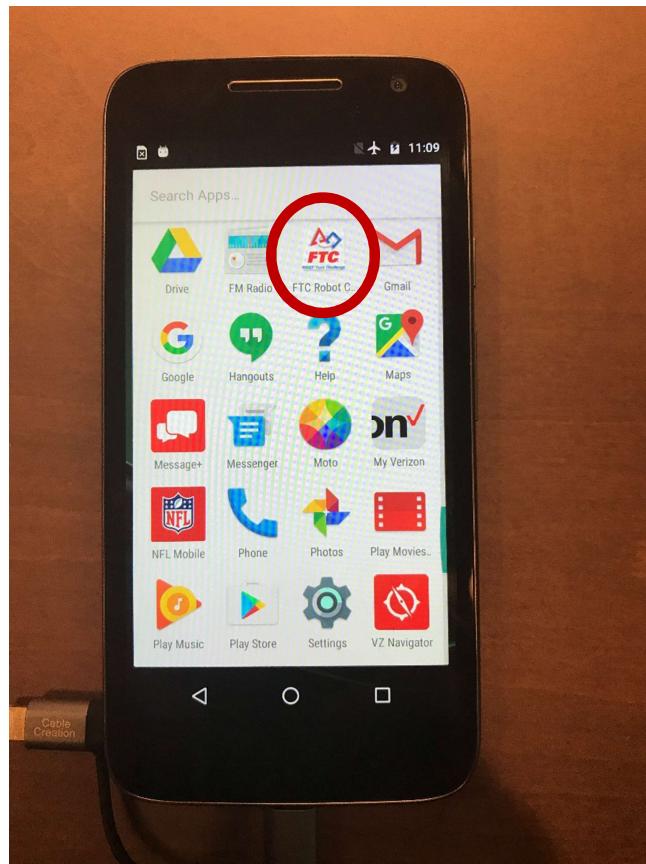


#### Guide

- The phone will display a pop-up settings page similar to the one on the left.
- Click 'Exit'. (See red oval.)

## Step 10 – Deploy the Robot Controller

### 11. FTC Application Icon added to Applications page



#### Guide

- Once the FTC Robot Controller application closes, the phone will return to the applications page.
- Please note that the FTC Robot Controller icon has been added to the page.
- Please move the Robot Controller application to the home page to make it easier to find.
- Press and hold the FTC Robot Controller icon.
- This will create a copy then drop it on the home page that will automatically appear.
-

## Step 10 – Deploy the Robot Controller

### 12. FTC Application added to home Page



#### Guide

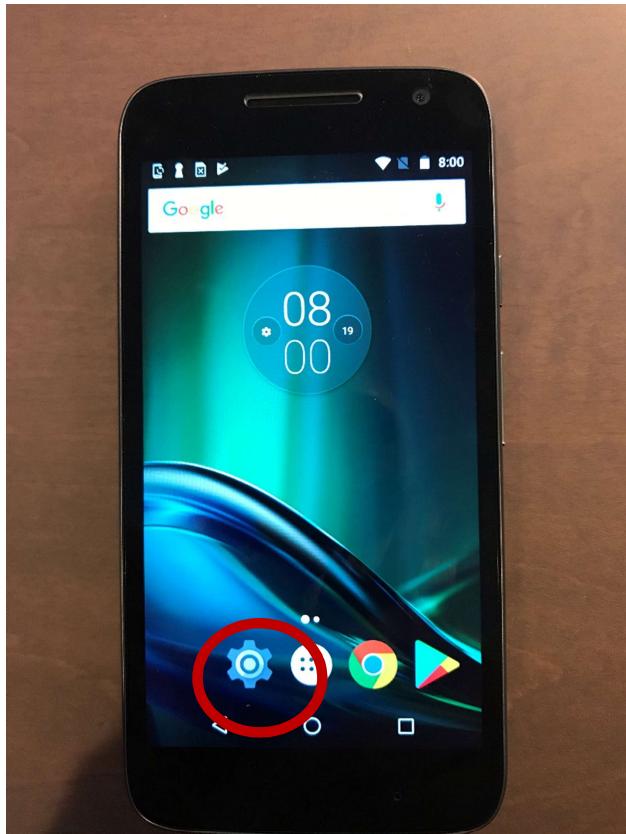
- The home page will now display with all of the icons you need without having to page through all the other applications. This will make it much easier to find during competitions.
- Your home page should look similar to the screen on the left.

***Congratulations you have a working FTC Robot Controller!!!***

## Step 11 – Deploy the Driver Station

### 1. Start off at Phone Home Page

---

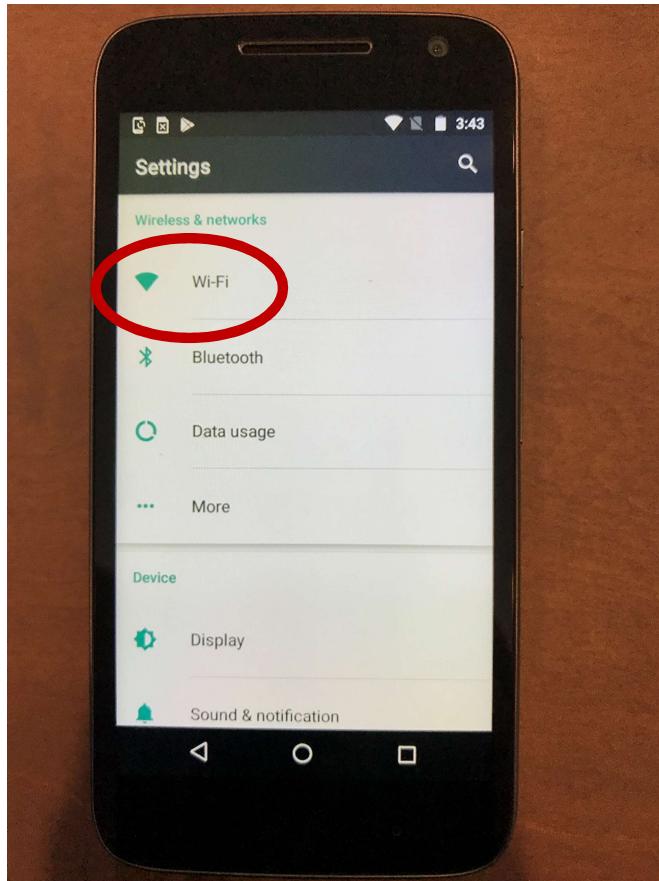


#### Guide

- The Next thing we need to do is install the FTC driver station from the Google Play store.
- Select the phone that you labeled xxxx-DS where xxx uis your team number.
- Start off at the Home screen similar to the one on the left.
- Click the Settings Icon (See red oval)

## Step 11 – Deploy the Driver Station

### 2. Select Wi-Fi Settings

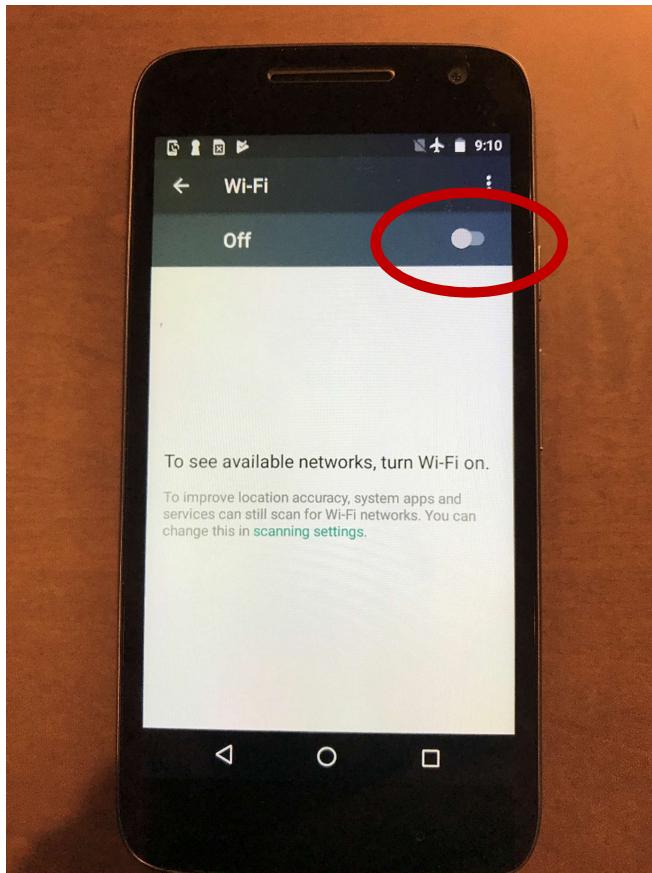


#### Guide

- This will take you to the Settings Page (Similar to the screen on the left)
- Click the Wi-Fi (See red oval)

## Step 11 – Deploy the Driver Station

### 3. Turn on Wi-Fi

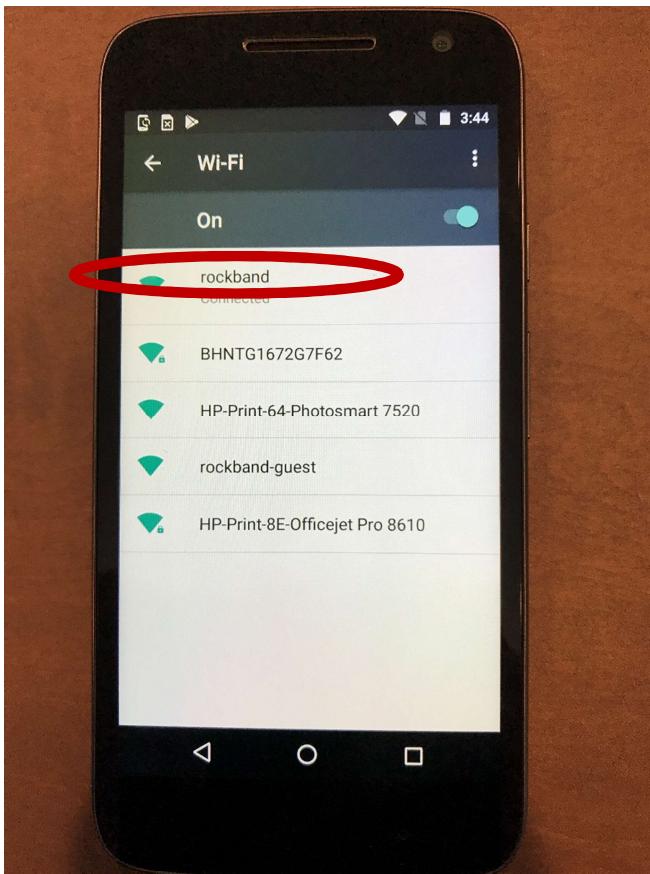


#### Guide

- Because we turned on Airplane mode earlier in the setup, we need to turn on WiFi now.
- Click the Wi-Fi button to slide to the right on turn on Wi-Fi. (See red oval)

## Step 11 – Deploy the Driver Station

### 4. Select Wi-Fi Network



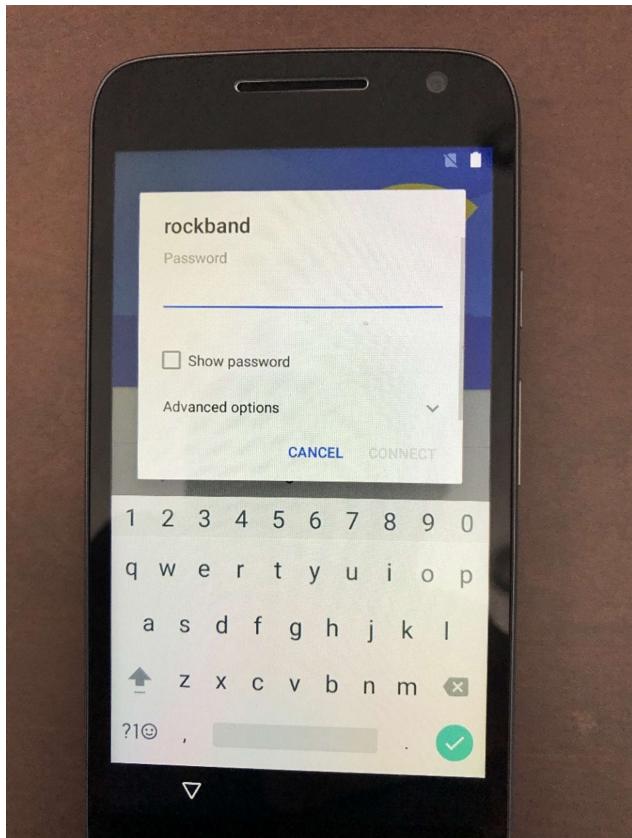
#### Guide

- This will take you to the WI-FI discovered networks page (Similar to the screen on the left)
- Click on the network that will provide Internet access. In this example the network is named rockband. (See red oval)

## Step 11 – Deploy the Driver Station

### 5. Enter Network Password If Required

---



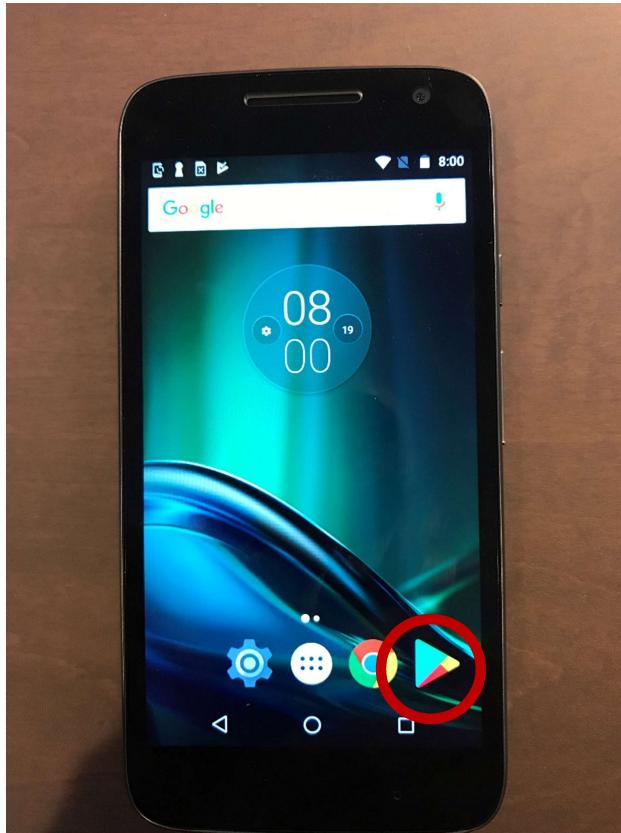
#### Guide

- This will take you to the WI-FI password page – if your network requires a password. If not skip this page and move on to the next step
- Enter Password
- Click ????

## Step 11 – Deploy the Driver Station

### 6. Select Google Play Store

---

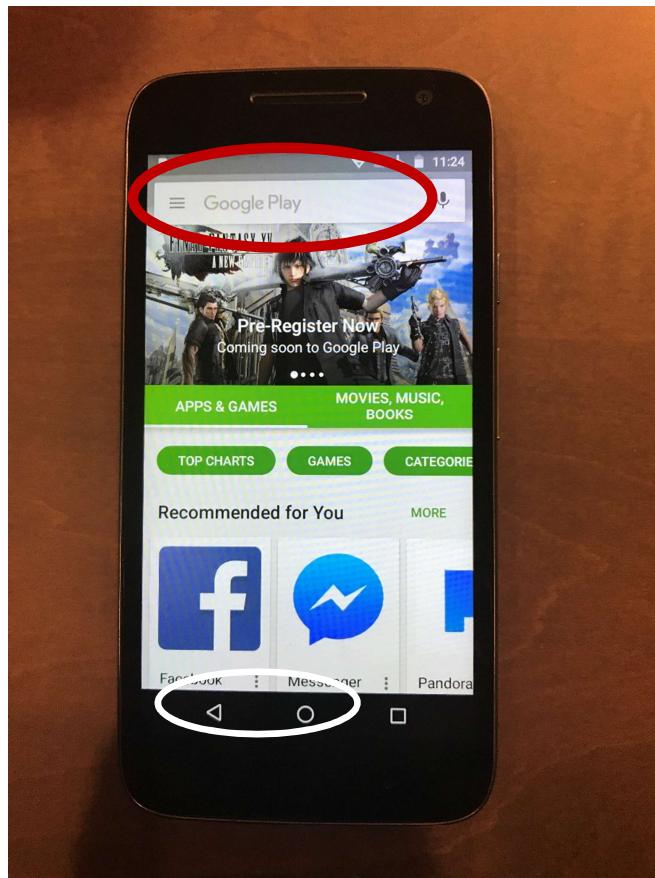


#### Guide

- Return to the Home page
- Click the Google Play icon. (see red oval).

## Step 11 – Deploy the Driver Station

### 7. In the Search box enter FTC Driver Station

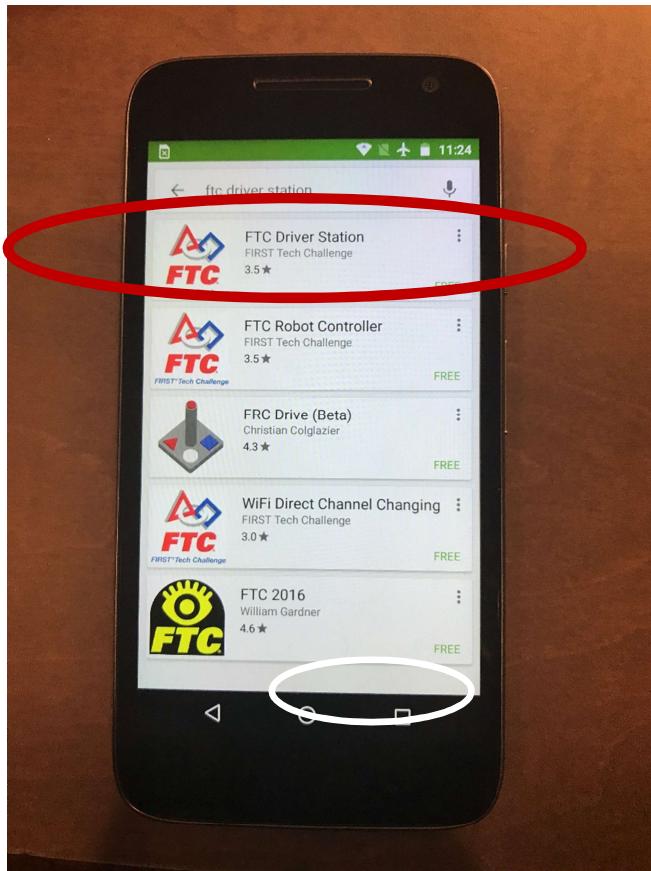


### Guide

- The phone will display the Play Store Home page similar to the screen on the left
- In the search box type in 'FTC Driver Station' (see red oval).

## Step 11 – Deploy the Driver Station

### 8. Select the FTC Driver Station application

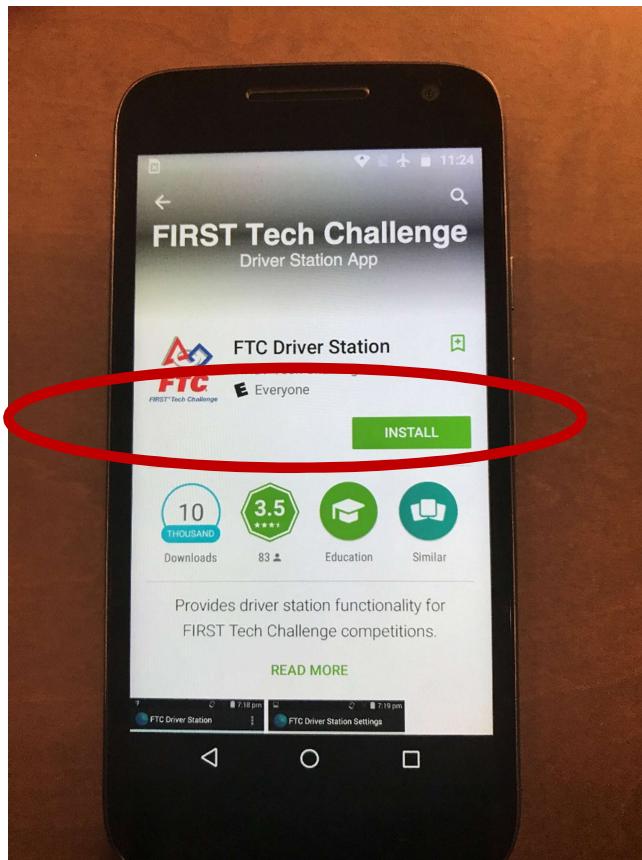


#### Guide

- The phone will display the search results page based on your entry of the 'FTC Driver Station.'
- Click on the 'FTC Driver Station' (see red oval).

## Step 11 – Deploy the Driver Station

### 9. Install the FTC Driver Station

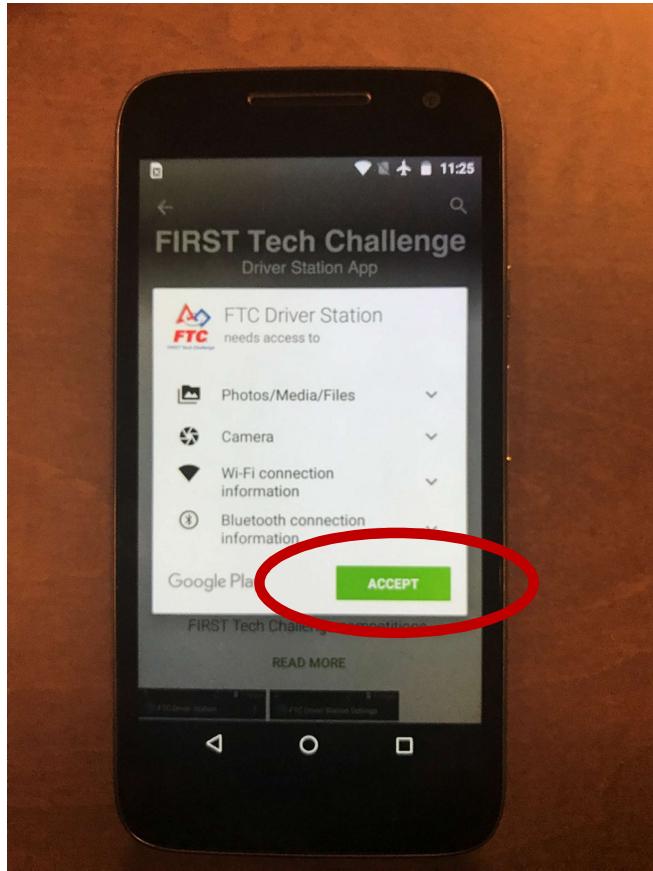


#### Guide

- The phone will display the FIRST Tech Challenge Driver Station App Informational Page similar to the screen on the left
- Click the 'Install' button (see red oval).

## Step 11 – Deploy the Driver Station

### 10. Accept Access to phone services

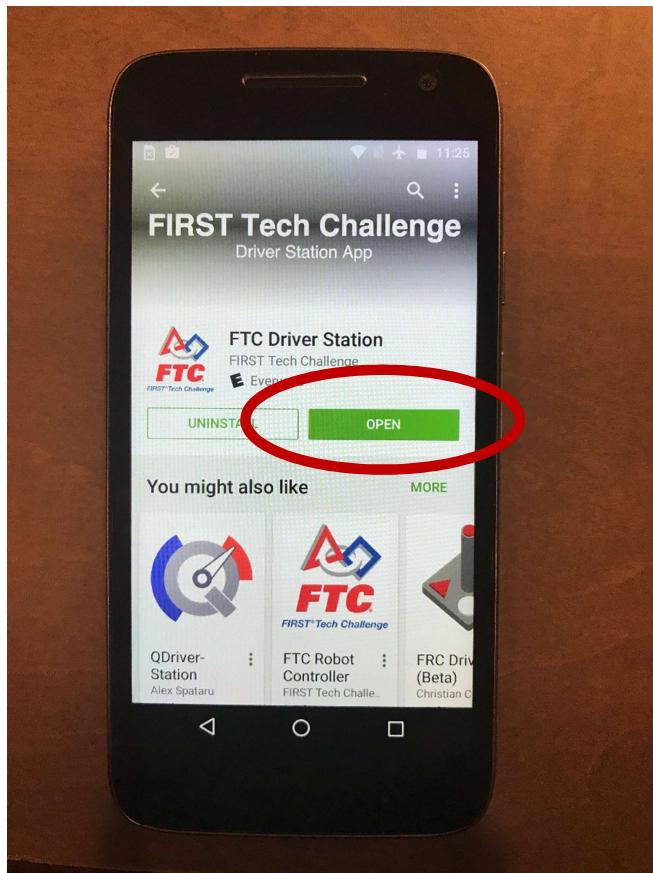


#### Guide

- The phone FTC application needs access to services installed on the phone. The page similar to the screen on the left
- Click the 'Accept' button (see red oval).

## Step 11 – Deploy the Driver Station

### 11. Open the FTC Driver Station



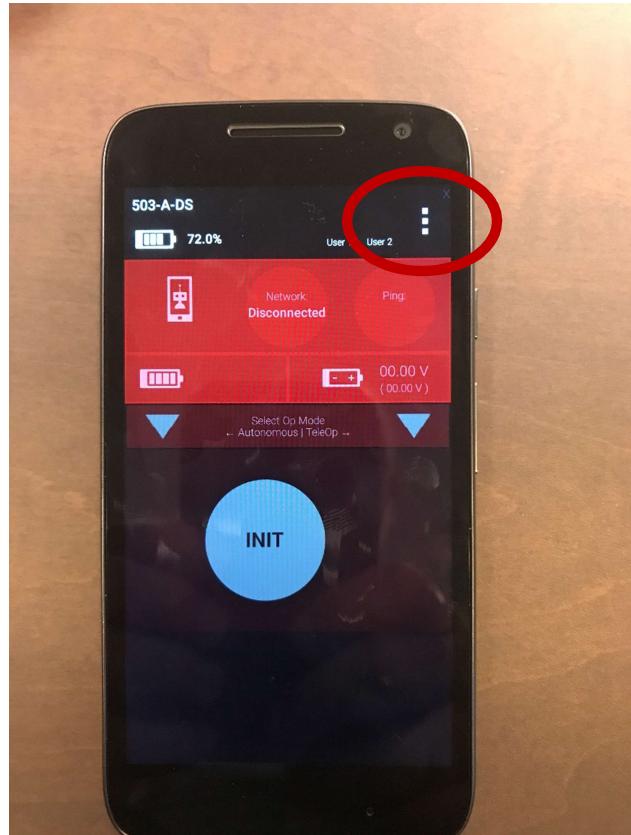
#### Guide

- Once the download and installation has been completed. The phone will display a page similar to the screen on the left
- Click the ‘Open’ button (see red oval).

## Step 11 – Deploy the Driver Station

### 12. Select Settings on Driver Station

---

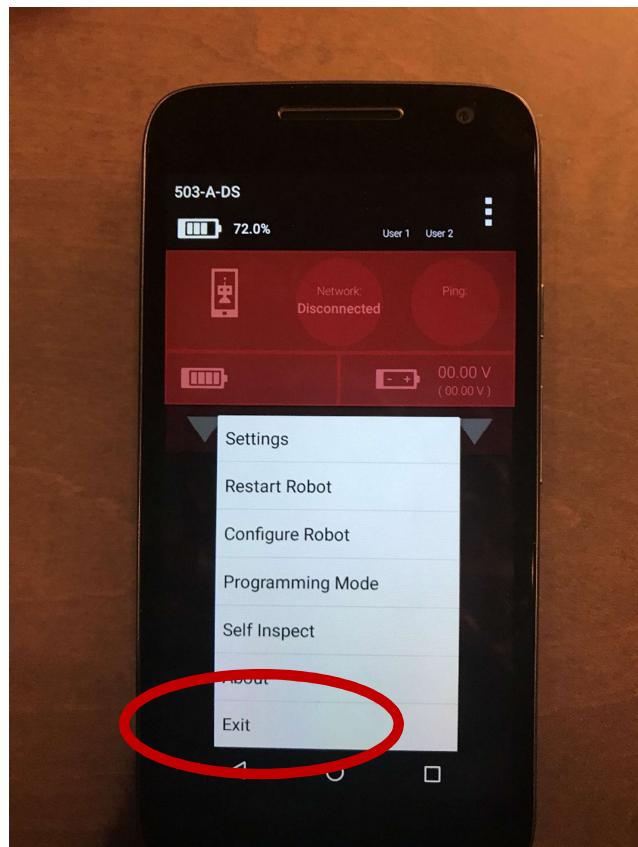


#### Guide

- Click the settings button. (three vertical dots). See red oval

## Step 11 – Deploy the Driver Station

### 13. Exit Driver Station

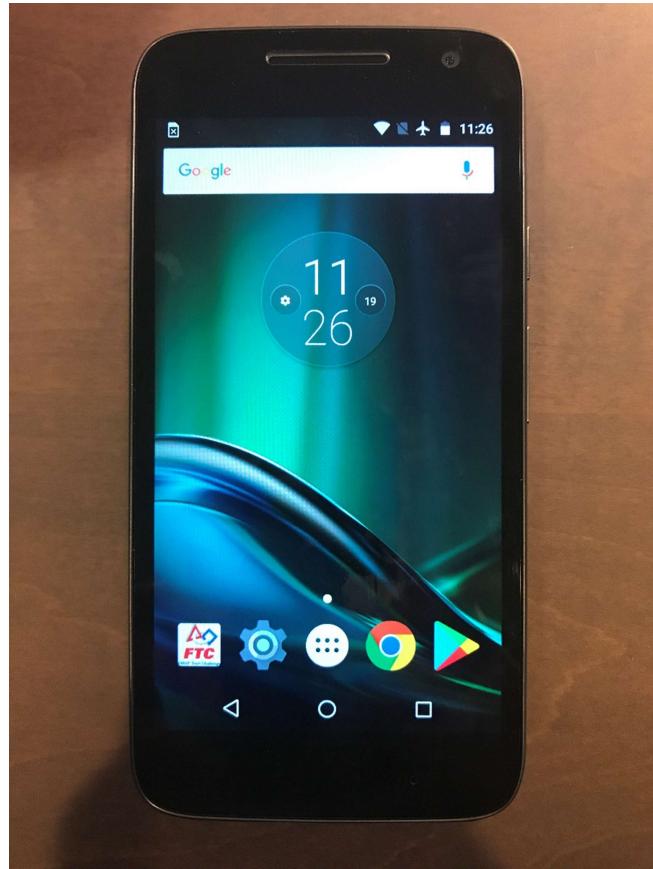


#### Guide

- Click 'Exit' (See red oval)

## Step 11 – Deploy the Driver Station

### 14. FTC Driver Station Installation Completed



#### Guide

- ???????\  
• Click 'Exit' (See red oval)
- Important
  - You must delete (forgotten) the internet connection that you have setup on this device to prevent connection issues between the Driver Station and Robot Controller
  - Continue onto next steps

***Congratulations you have a working FTC Driver Station!!!***



***Congratulations you have a working Robot Communication environment!!!!!!***

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# Questions?



*What we are doing today will transform tomorrow's culture.*

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