

## **Android - TRMNL Display Mirror**



A simple app to mirror existing TRMNL's content to your Android devices like Phone, Tablet, e-Ink Display.

### **Application Overview**

The TRMNL Display Mirror app serves as a digital display mirror for TRMNL e-ink devices. The app connects to the TRMNL API, fetches display data, and shows it on Android devices.

#### **Key Features**

- Token-based authentication with the TRMNL/BYOS API
- Automatic periodic image refresh from the server
- Adaptive refresh rate based on server response config
- Manual refresh capabilities and option to load next playlist image
- Support for custom server URLs for your BYOS installations
- Refresh history logging for tracking & validation

### **Preconditions**

You must have a **valid** access-token to access the <u>screen content</u> using TRMNL server API.

Here are some of the known ways you can get access to the  $_{\mbox{\scriptsize access-token}}$  .

- 1. You must own a TRMNL device with "developer edition" add-on purchased
- 2. You have purchased their BYOD product.
- 3. You have self-serve installation of TRMNL service using BYOS

#### How to try

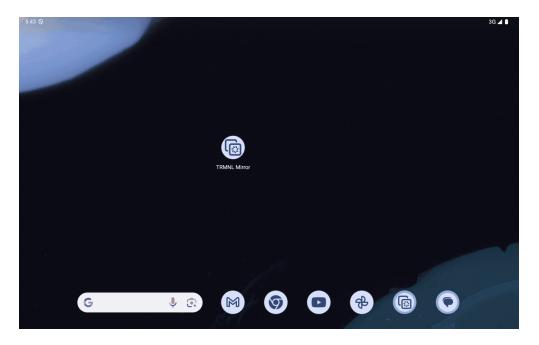
- Install the APK on your Android device.
  - Configure the API access-token in the app settings
  - Save the token and keep the app alwayson with the TRMNL's display image showing.





#### **Download Release**

Check installable APK from Assets in latest release.



#### Limitations 🚧

- 1. Right now, screen lock using Google's <u>recommended</u> **FLAG\_KEEP\_SCREEN\_ON** is not working on e-Ink tablet due to strict battery optimization. So, if you plan to keep the screen on indefinitely, you should set that in the device settings.
  - On normal Android tablet or device, screen wake lock should work. However it's not recommended to use it without device being always plugged-in .
- 2. Currently the app uses Android WorkManager to schedule refresh job and it has minimum interval of ( 15 min between jobs. So, if your TRMNL is setup to refresh every 5 min, you will not see it refresh until 15 min is elapsed.
  - This can be overcome by using some clever logic or not using WorkManager . However, this is a OS optimized and

- reliable way to refresh image periodically.
- o Imagine a user running the app on an Android phone or tablet. When the app is in the background (e.g., the screen is off), it avoids unnecessary image refresh calls, conserving the user's battery. These optimizations are built into WorkManager.

## Android Development & Contribution

# Guide

See CONTRIBUTING.md for more details on how to get started and contribute to the project.