

Android Remote Driver Installation and Usage Guide



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Overview

Want to control the Amazon Fire TV, Chromecast with Google TV, DirecTV Stream Device, Nvidia Shield, Xiaomi Mibox, AirTV and more? The Chowmain Android TV driver is designed to control Google Android TV boxes. It is a software only solution so no extra hardware required. This allows you to utilise the Control4 Neeo or SR-260 remote to navigate the Android operating system and control applications as you would with a normal infra red remote control. No need to root the device and no need to install any additional hardware.

Add to this the ability to launch applications via the Apps driver (which lists all installed apps), via mini drivers for individual apps (for the most popular applications), via coloured buttons and also programmatically.

This driver requires a 3rd party application called Zank Remote ([Amazon App Store](#) / [Google Play Store](#)) be installed and configured on your android device. Just install the app from amazon app store or play store and follow the instructions to configure the Android TV box. We partnered with the developer of Zank to further develop their app to provide the functionality we require for integration. Note a portion of licencing revenue goes towards our partners at Zank to support the Zank app development.

Features

- Compatible Devices
 - Android TV devices
 - AirTV
 - Amazon Fire TV
 - Chromecast with Google TV
 - DirecTV Stream Device
 - Nvidia Shield
 - Xiaomi MiBox
 - Foxtel Now
 - Other Google / **Android TV Boxes** (Not to be mistaken for normal Android)
- IP Based communications
- Auto Discovery of Box
- Mappings
 - Up
 - Down
 - Left
 - Right
 - Select
 - Cancel
 - Page Up
 - Page Down
 - Menu (Home)
 - Volume Up
 - Volume Down
 - List installed apps and launch applications from navigator
- Launch applications from coloured buttons
- Audio End-Point assignment for volume up and down functionality
- Video End-Point assignment

Change Log

Version #20220804 - 30-NOV-2022

- Update Debugging and Diagnostics
- Improve Page Up / Page Down Control (All Media Players)
- Improve Documentation

Version #20210726 – 26-JUL-2021

- Changed Zank Default (Advanced) to the default control method. Zank default (Advanced) is a new extremely fast control method that supports pretty much all apps and is speedy!
- Added Stop command option between media stop and back.
- Added Fire Tv driver now that Zank supports fire tv.

Version #20210218 – 18-FEB-2020

- Fixed issue introduced in yesterdays version for the select / enter button

Version #20210217 – 17-FEB-2020

- Fixed issue with mini app launching (timing on certain directors weren't right)
- Implented menu command. Mapped to input. This is the same as a long press on the center.
- Added Foxtel Now as a supported box

Version #20210211 – 11-FEB-2020

- Implemented ADB based control option.

Version #20210203 – 03-FEB-2020

- Implemented skip_fwd, skip_rev, play/pause commands

Version #20210114 – 14-JAN-2020

- Rewrite of driver. Now uses Zank Remote instead of LANmote

Version #20170710 – 10-JUL-2017

- Migrated to driverCentral.

Version #20161027 - 27-OCT-2016

- Updated to support newer LANmote Deluxe updates

Version #20160926 - 26-SEP-2016

- Major Update.
- Added support for new Chowmain Android Mini drivers.
- Added MSP to list and launch all apps installed on the android box.

Version #20150818 - 18-AUG-2015

- Implemented Dealer Demo Licencing

Version #20150407 - 07-APR-2015

- Resolved issue where logs on 2.6 systems would fill out controller storage causing system stability issues. This only affects systems where people have set the debug logs to 'print and log' or 'log' and have forgotten about it over longer periods of time.

Version #20141201- 01-DEC-2014

- Initial Release

Install and Configure Device

Background

This driver utilises the **Zank Remote - Remote for Android TV Box** to control the Google TV / Android TV device (Nvidia Shield, MiBox etc)

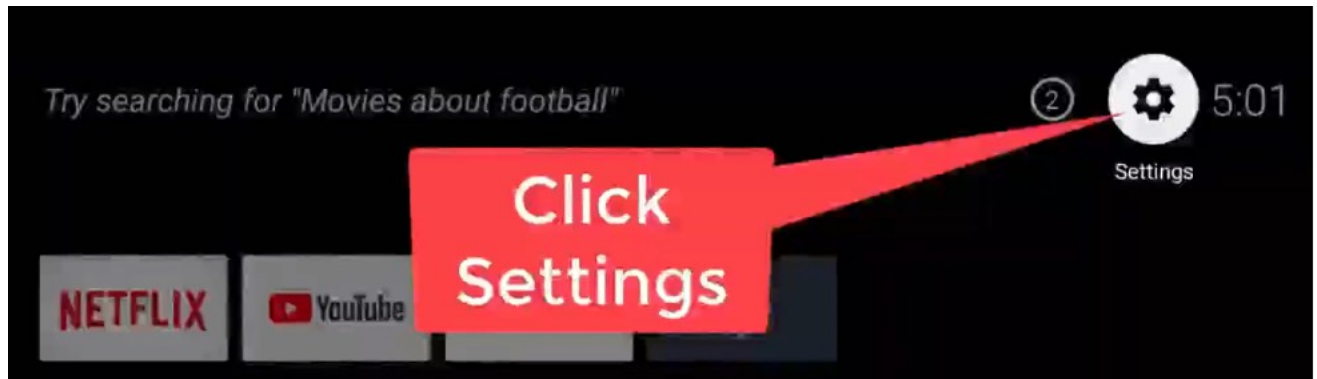
All communication between this driver and the Android device is done via this app.

Prepare the Android TV device

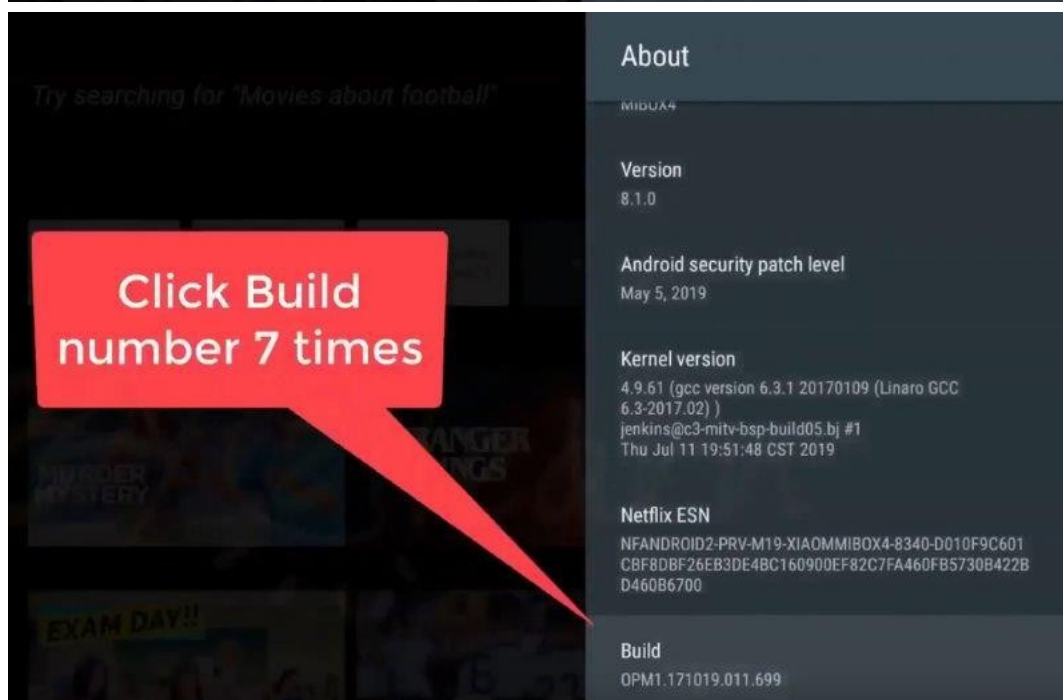
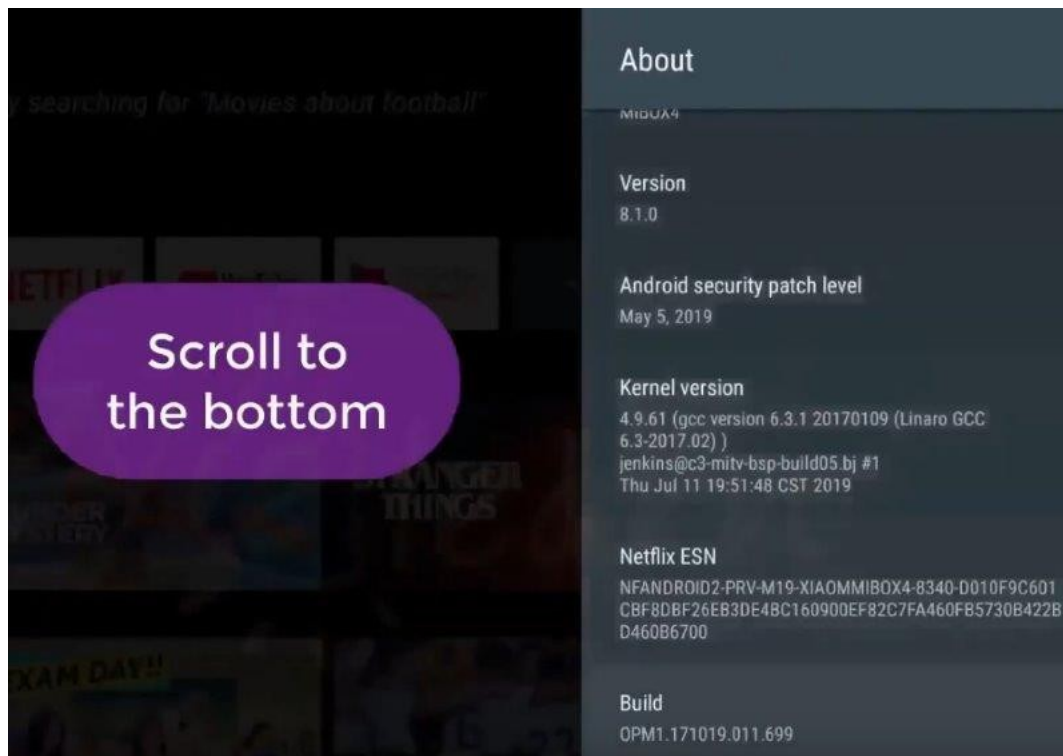
The Zank Remote requires the following settings to be enabled to function properly

Developer Mode

1. From the Home screen, select **Settings** > **Device Preferences** > **About**

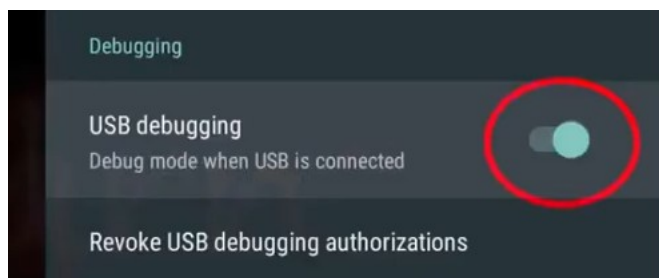
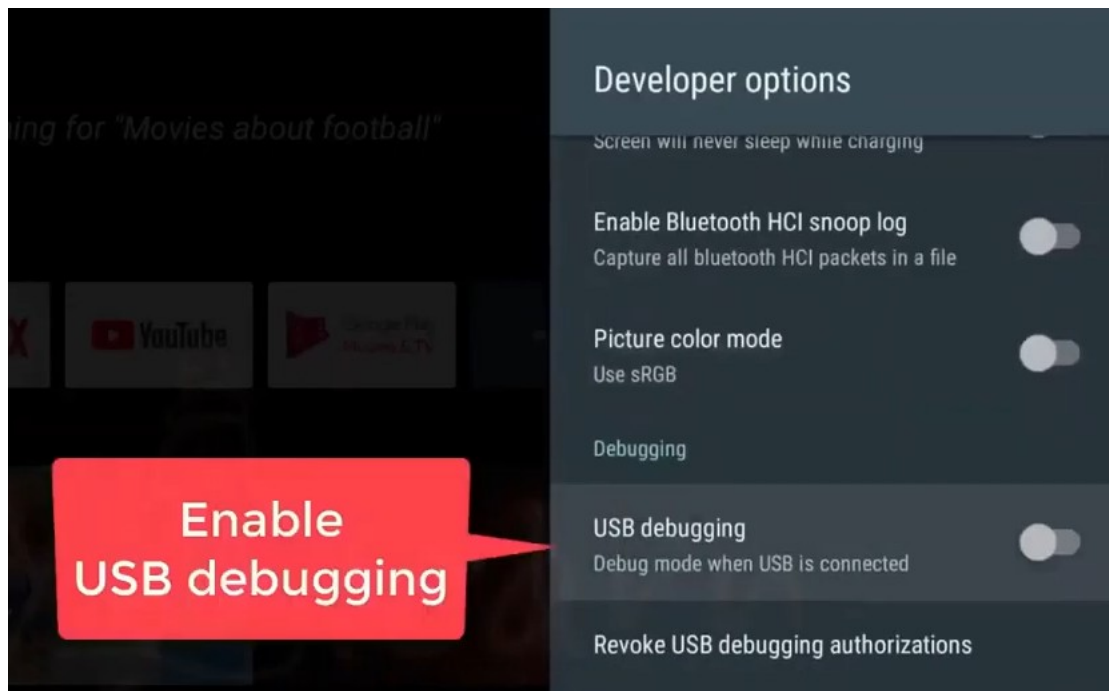


2. Now scroll down to **Build** and click on Build several (7x as of writing this manual) times until the message appears, "You are now a developer!"



USB Debugging

1. From the Home screen select **Settings > Device Preferences > Developer Options > USB Debugging** and select **OK**

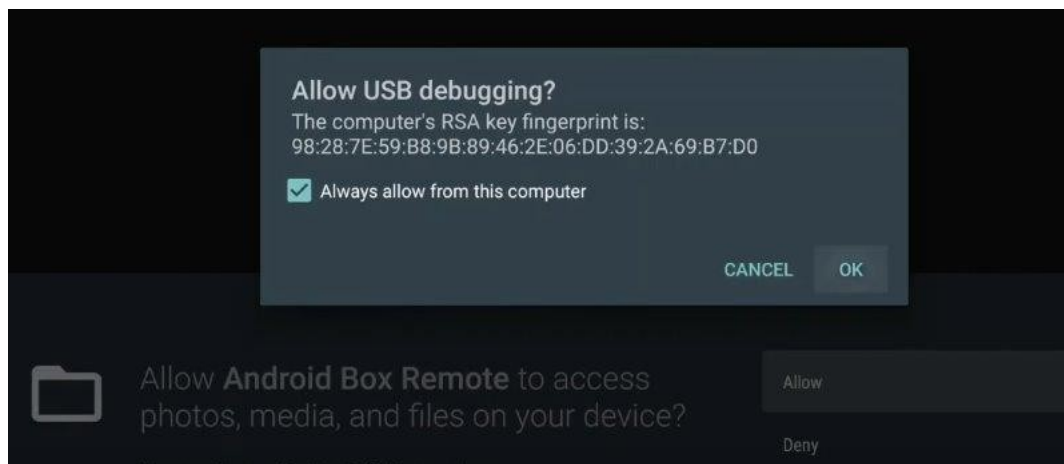


Install the Zank Remote app

Android TV

Search for and install **Zank Remote** in the **Play Store** on the **Android TV** device

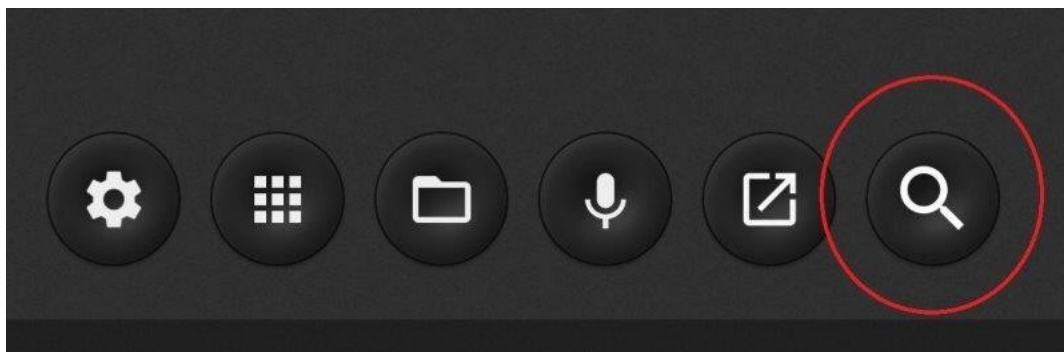
1. Start the app
2. Tick **Always allow from this computer** and select **OK**



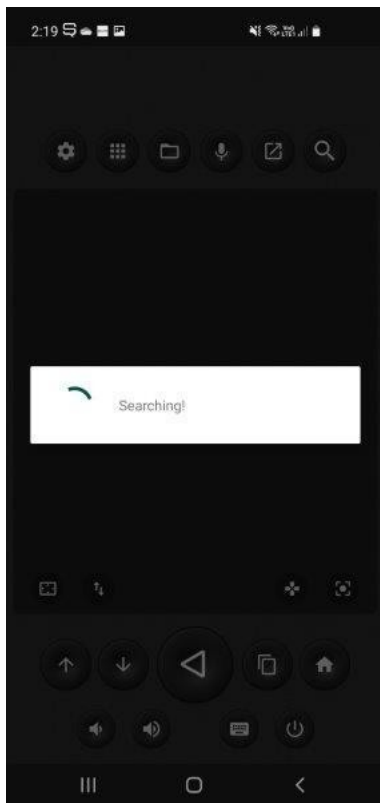
3. Take note of the IP address displayed on your TV. This is what you enter into the drive

Android Portable Device

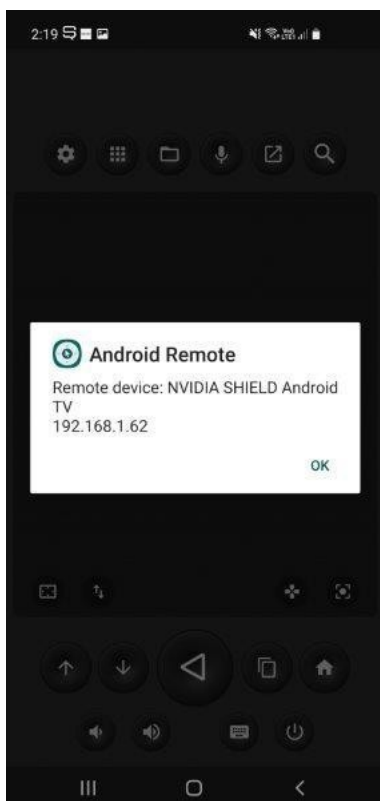
1. Search for and install **Zank Remote** in the **Play Store** on your **portable** device
2. Open the App and press the **Search** button



3. The app will search your network for the Android TV running the Zank Remote app



4. The app will display the device it has found and the IP address



5. Now confirm that you can control the Android TV with your mobile device

Note The developer's installation video is located here; <https://youtu.be/CV0ed7mSEPw>

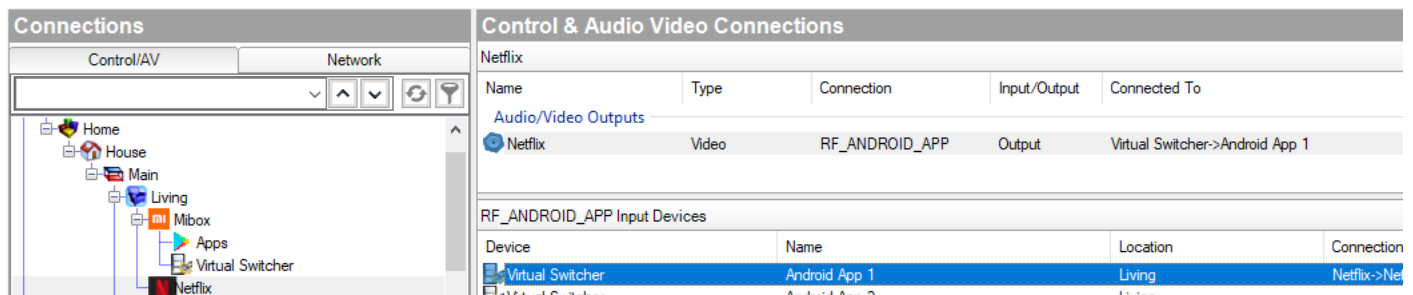
Install the Driver

NOTE: *You must complete the steps above before proceeding with the driver install*

1. Launch **Composer Pro** and connect to your project
2. In **System Design** select the **Search** tab on the right hand side
3. Type in your media player name (eg: **Chromecast with Google TV**) in the search field
4. Select the result with **(Zank)** in the name and add it to your project
5. Highlight the driver on the left hand side
6. The driver should automatically detect the Android TV device running Zank Remote and configure itself appropriately. *If you have multiple devices running Zank Remote, please set the IP address manually*
7. Select **Zank ADB** under Control Method on the **Properties** tab
8. You can confirm that the driver is connected by going to **Actions > Print Apps** and confirming that the Lua tab has a list of all the installed apps on the Android TV
9. You have now completed the driver installation

Setting up Miniapps

1. Launch **Composer Pro**
2. In **System Design** search for the required miniapp (**Netflix - Zank** for example) and add it to your project
3. In **Connections** select the miniapp you've just added and bind it to any of the **Virtual Switcher** inputs that you added for this driver



The screenshot shows two panels from a software interface. The left panel, titled 'Connections', has tabs for 'Control/AV' and 'Network'. Under 'Control/AV', a tree view shows a hierarchy: Home > House > Main > Living > Mibox > Apps > Virtual Switcher > Netflix. The right panel, titled 'Control & Audio Video Connections', shows the configuration for the 'Netflix' miniapp. It has a table for 'Audio/Video Outputs' with one row: Name 'Netflix', Type 'Video', Connection 'RF_ANDROID_APP', Input/Output 'Output', and Connected To 'Virtual Switcher->Android App 1'. Below this is a table for 'RF_ANDROID_APP Input Devices' with two rows: Device 'Virtual Switcher', Name 'Android App 1', Location 'Living', and Connection 'Netflix->Net'; and Device 'Virtual Switcher', Name 'Android App 2', Location 'Living', and Connection 'Netflix->Net'.

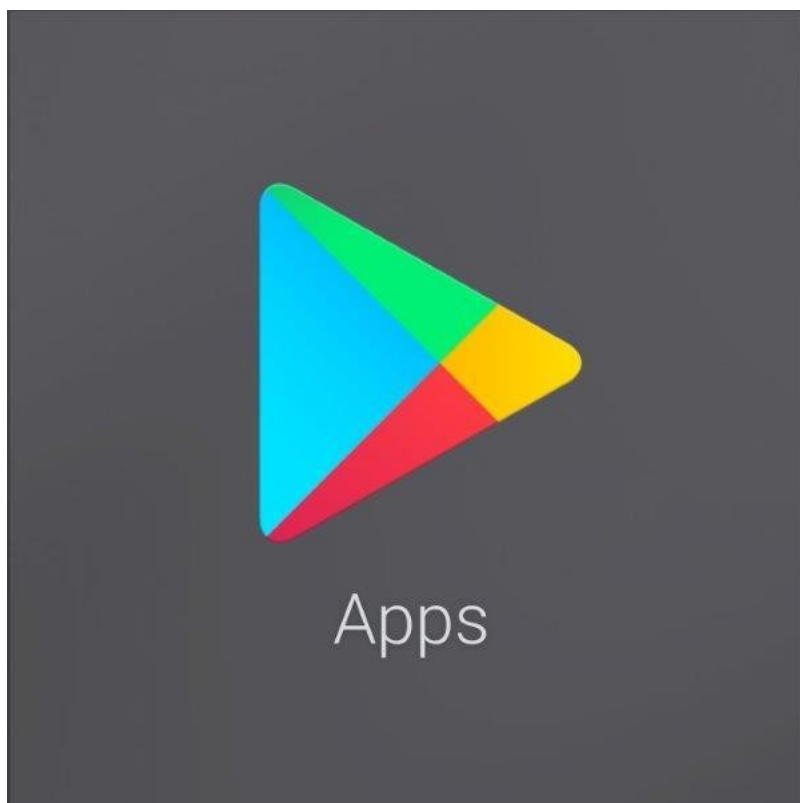
Name	Type	Connection	Input/Output	Connected To
Netflix	Video	RF_ANDROID_APP	Output	Virtual Switcher->Android App 1

Device	Name	Location	Connection
Virtual Switcher	Android App 1	Living	Netflix->Net
Virtual Switcher	Android App 2	Living	Netflix->Net

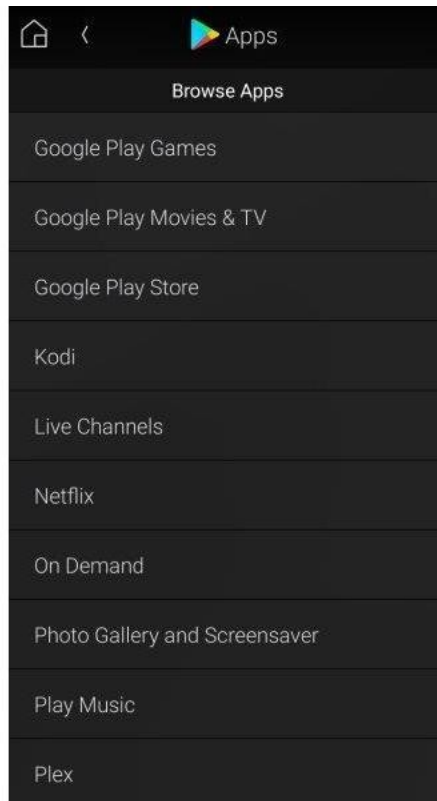
4. Refresh Navigators and you will now be able to launch Netflix directly from Control4

Play Integration

This driver adds a shortcut to all the apps installed on the Android TV device to the Watch experience menu;



This is a dynamically generated list of apps that are available on the Android TV



Keymap

Control4	Android TV
Up	Navigate Up
Down	Navigate Down
Left	Navigate Left
Right	Navigate Right
Select	Center Button
Play	Play / Pause
Pause	Play / Pause
Cancel	Back
Menu	Home Screen
Guide	Home Screen
Skip Forward	Next
Skip Previous	Previous
Scan Reverse	Rewind
Scan Forward	Fast Forward
Stop	Stop (doesn't work on all apps)
Page Up	Page Up on Selected Panel
Page Down	Page Down on Selected Panel
Channel Up	Page Up on Selected Panel
Channel Down	Page Down on Selected Panel
Volume Up	Volume Up (need to set to audio endpoint)
Volume Down	Volume Down (need to set to audio endpoint)

Licensing

- How does the trial period work?

All Chowmain drivers are free to use for a set trial period. When the trial expires the driver will cease to function until you purchase a licence and apply it to the driverCentral project.

- Where do I buy a Licence from?

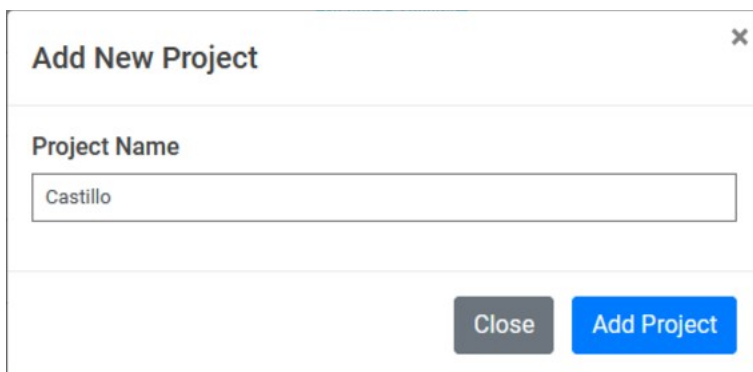
This driver is developed by Chowmain software & Apps and is distributed by driverCentral, Inc
<https://www.drivercentral.io/chowmain-ltd>

To purchase a driver:

1. On driverCentral, purchase a license and register it to your project
2. If the driver is not already installed in your project, download it and install it
3. If necessary, use the cloud driver's Action: "Check Drivers" to force the licence to download into the project


Creating a Project on Driver Central

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **New Project**
5. Enter the project name




The screenshot shows a modal dialog box titled "Add New Project". Inside the dialog, there is a label "Project Name" above a text input field. The input field contains the text "Castillo". At the bottom right of the dialog, there are two buttons: a grey "Close" button and a blue "Add Project" button.

6. Click **Add Project**
7. Click on the project we just created

Project	Status	Created
 Castillo	Unassigned Project	1999-12-31 23:59:56

- Take note of the **Project Token** as this will be used later when we install the Cloud Driver

Castillo 




Project Token:
ABCDEFG012

MAC:
000FFF123456

IP:
1.2.3.456

Connection Status:
Offline

Last Seen:

Actions:
  

There are no drivers attached to this project.

Close

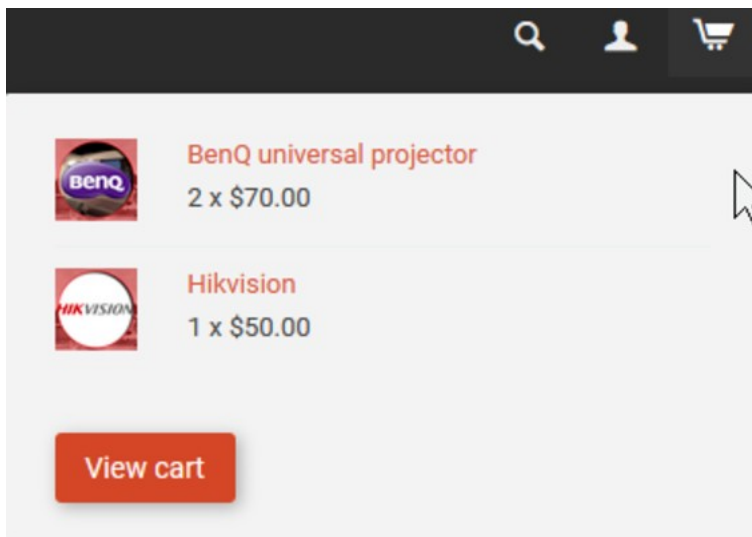
- Click **Close**

Purchasing a Driver Licence

- Visit <https://www.drivercentral.io/chowmain-ltd/> and find the product/driver you want to purchase a licence for
- Click on **Add to Cart**

ADD TO CART

- Now click the shopping cart icon (top right) and click **View cart**



- Confirm that your order is correct and click on **Proceed to checkout**

Proceed to checkout

- Choose your payment option, provide the relevant details and click **Place order**

Checkout

Paypal
Paypal, or Credit Card...

Credit Card
Visa, Mastercard, etc...

☐ Select this check box to accept the [Terms and Conditions](#)

☐ Subscribe to our newsletter

Place order (\$190.00)

6. You will now be at a page where you can see your purchased licence

License Name	License Key	Project Assigned	Action
[Redacted License Information]			Assign to Project

7. From here assign the licence to the project we created or if you did not follow that step create a new project

License Assignment for
221

Assign License to Existing Project

Select Existing Project:

New Project (enter project name below)

Or...

Create a new project

Enter New Project Name

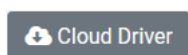
Enter email for Installer Notifi

Are you sure you want to do this?

Assign License to Project?

Install the driverCentral cloud driver

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **Cloud Driver**



5. Copy the C4Z driver to My Documents\Control4\Drivers directory
6. Add the driver to your project
7. Click on the driver to view it's properties

Cloud Status	Please enter cloud project token below...
Project Information	(1) Total, (0) Licensed, (0) Trials, (1) Expired, (0) Updates.
Driver Version	1001
Project Token	<input type="text"/>
	Project token from driverCentral.io project portal
Driver Actions	<input type="button" value="v"/>
Debug Mode	Off <input type="button" value="v"/>

8. Type in the project token we took note of earlier
9. Click **Actions** tab
10. Click **Check Drivers**

Install Chowmain driver

1. Install the Chowmain driver
2. You will notice that the Activation Status reflects a Licence Activated state
3. Any driver that does not have a purchased licence will have a trial licence activated via the marketplace
Note that there is no way to reactivate the trial so please use wisely
4. If you do not then press the Check Drivers action in the driverCentral Cloud driver again

Activation Status	Update Available!!! License Activated
Driver Version	1002
Driver Information	Navigate to connections tab and make serial binding
Automatic Updates	Off <input type="button" value="v"/>