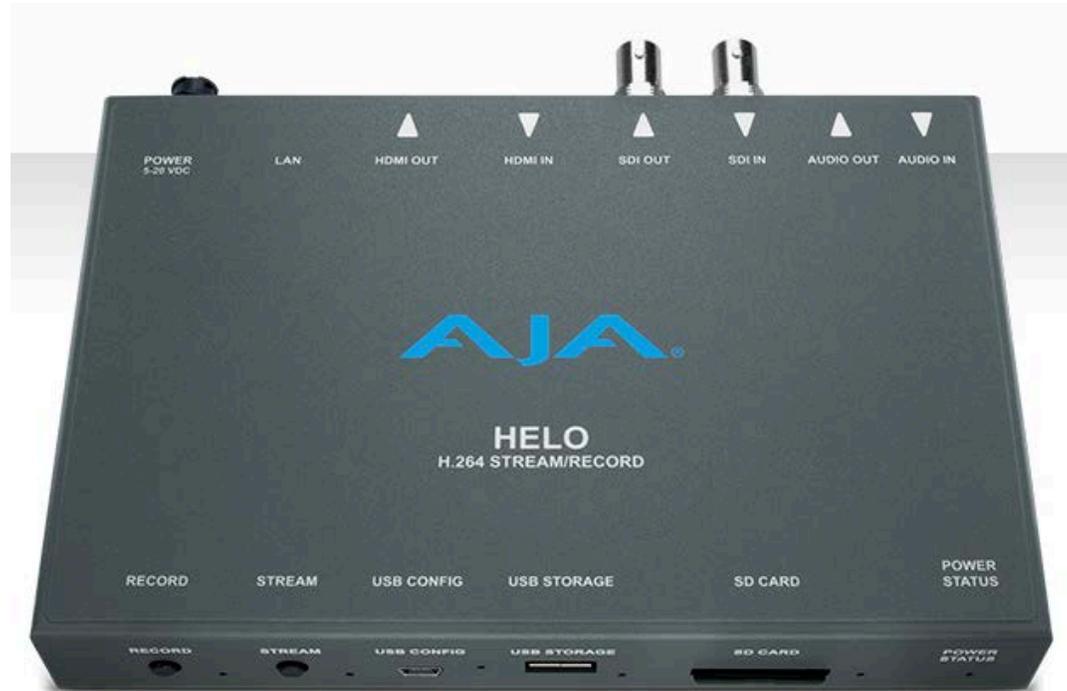


AJA Helo Video Streaming

A Quick Start Guide for Streaming Video to
You Tube with the **AJA Helo**

The AJA Helo streams and records video.

- Records: H.264 video at a maximum of 20 mbps.
- Streams: H.264 video at a maximum of 10 mbps.



Six Steps to Video Streaming

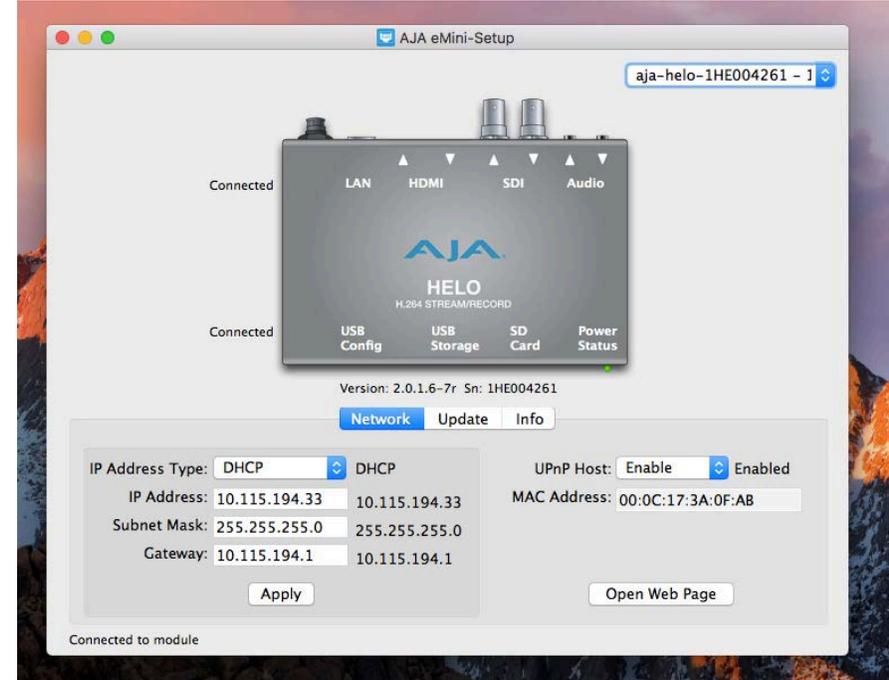
- 1. Connect the Helo to an Ethernet Port and determine it's IP Address
- 2. Connect a camera to the Helo.
- 3. Control the stream and record settings through the Helo web browser interface.
- 4. Go to your You Tube Creator Studio account and find the Stream Name and Key information (or the same information in another streaming application).
- 5. Enter this information in the Helo Controls
- 6. Start streaming and recording.

Determine the IP Address



The Helo streams over Ethernet not over wireless. In general, wireless connections are not stable for streaming. Connect the Helo to an Ethernet Port, then connect it to a computer using the mini USB to USB cable provided. All of the CDA laptops have the software for the Helo installed or download it from the AJA Helo support page.

Open the AJA eMini-Setup application.



In the Network settings of the eMini-Setup, the IP Address Type should be set to DHCP by default. Copy and paste the indicated IP Address into a web browser to access the Helo interface. Note that when using DHCP, the IP address may change each time the Helo is plugged into an Ethernet port. Close the mini setup and take out the USB connection. The Helo can now be controlled remotely.

Connect a Camera



- Connect a camera to the Helo's HDMI or SDI Input.
- The SDI connection is more secure and the quality of the recording will be superior.
- Both HDMI and SDI also carry an audio signal. If there is a separate audio source use the 1/8th" audio input.

Supported Video Input Formats

- **HD 1080 30p is a good default video format to use.**
- (2K) 2048 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60*
- (HD) 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1080i 25, 29.97, 30
- (HD) 720p 50, 59.94, 60
- (SD) 525i, 625i
- *2K inputs are center cut to 1080p and are only supported on SDI input

Type in the IP Address of the Helo into your Web Browser to access the controls.

The screenshot displays the HELO web interface in a browser window. The address bar shows the IP address 10.115.136.200. The main header features the "HELO" logo and the "AJA VIDEO SYSTEMS" logo. A left sidebar contains a "Menu" with options: Status, Config (selected), Scheduler, Recording Profiles, Streaming Profiles, Presets, Network, and Firmware. Below the menu are sections for "Recordings" (Primary: SD 0, Secondary: None 0) and "Alarms" (None). The main content area is titled "aja-helo-1HE004261" and includes a video feed of a building. To the right of the video are three control buttons: a red stop button, a blue chain link button, and a green signal button. Below these are three dropdown menus: "Recording Profile Name 1 Copy", "Independent Codecs", and "Streaming Profile Name 1 Copy". The "Config Page" section contains several settings: "Video Source" (SDI), "Audio Source" (SDI), "Audio Delay" (0 Milliseconds with a slider), "Loss of Video Behavior" (Record Test Pattern), and "Front Panel Button Lock" (Off). A right sidebar shows "Connection" (Serial Number: 1HE004261, Software Version: 2.0.1.6-7r, Connection Status: Connected) and "Network" (aja-helo-1HE004261).

In the **Config Menu**, select the **Video and Audio Source**. Here I have chosen SDI. You should see the video input appear in the preview window. The video motion is choppy in preview only. There is no audio preview.

The screenshot displays the HELO software interface. At the top center, the word "HELO" is written in large white letters. In the top right corner, the "AJA VIDEO SYSTEMS" logo is visible. On the left side, there is a "Menu" sidebar with options: Status, Config (highlighted), Scheduler, Recording Profiles, Streaming Profiles, Presets, Network, and Firmware. Below the menu are sections for "Recordings" (Primary: SD 0, Secondary: None 0) and "Alarms" (None). The main area shows a "Config Page" for "aja-helo-1HE004261". It features a preview window showing a building, and three settings: "Recording Profile Name 1 Copy", "Independent Codecs", and "Streaming Profile Name 1 Copy". Below these are configuration options: "Video Source" (SDI), "Audio Source" (SDI), "Audio Delay" (0 Milliseconds), "Loss of Video Behavior" (Record Test Pattern), and "Front Panel Button Lock" (Off). On the right side, there is a "Connection" panel showing "Serial Number 1HE004261", "Software Version 2.0.1.6-7r", and "Connection Status Connected". Below that is a "Network" panel showing "aja-helo-1HE004261".

- **Recording Profiles Menu/Recording Template** selects the format of what will be recorded to the SD card in the Helo or to a connected USB hard drive. There is a 128 GB SD card provided so always choose the best quality recording: 1080p High 20 Mb. The file will be about 1 GB per 15 minutes, so about 30 hours or recording time.
- Hit the Apply button to load the recording parameters.

The screenshot displays the HELO web interface for device 'aja-helo-1HE004261'. The interface is divided into several sections:

- Menu:** A sidebar on the left with options: Status, Config, Scheduler, **Recording Profiles** (highlighted), Streaming Profiles, Presets, Network, and Firmware.
- Recordings:** A section showing 'Primary: SD 0' and 'Secondary: None 0'.
- Alarms:** A section with a green 'None' button.
- Recording Profile Settings:** The main content area, which includes:
 - Recording Template:** A dropdown menu set to '1080p High 20 Mb' with an 'Apply' button. Below it, a tooltip reads '126.1 - Canned Recording Profile Template'.
 - Recording Profile Copy From:** A dropdown menu set to 'Recording Profile Name 1 Copy' with an 'Apply' button.
 - Recording Profile:** A dropdown menu set to 'Recording Profile Name 1 Copy'.
- Right Panel:** A sidebar on the right showing system information:
 - Connection:** Serial Number '1HE004261', Software Version '2.0.1.6-7r', and Connection Status 'Connected'.
 - Network:** Network name 'aja-helo-1HE004261'.

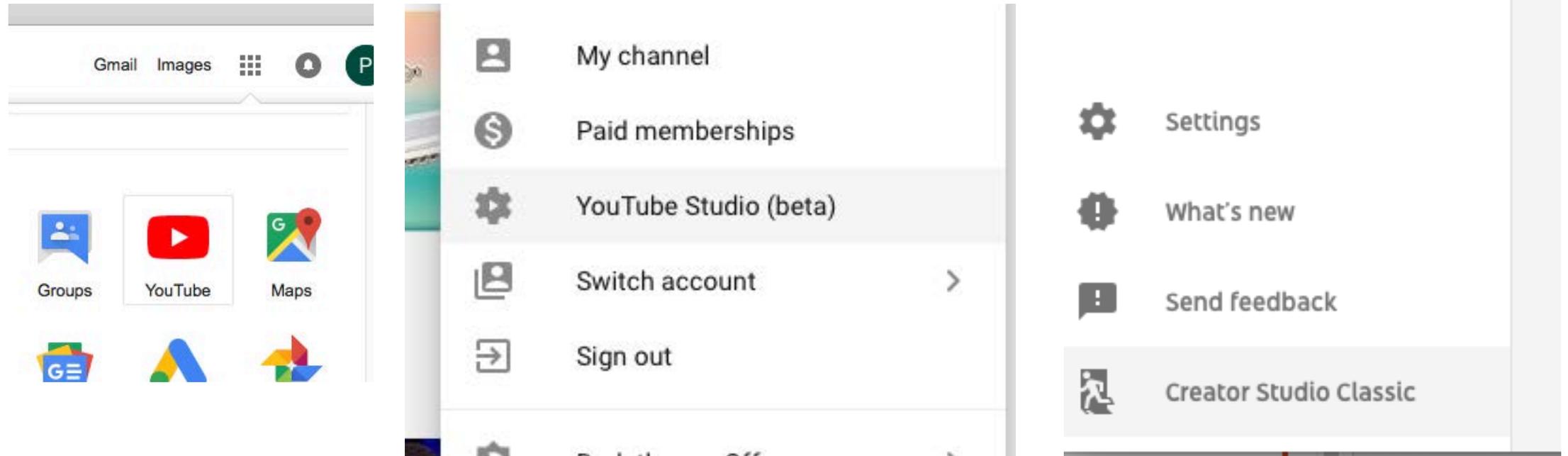
In the **Recording Profile Settings**, the **SD** card should be the default **Recording Media Type**. Note that you can also designate a USB drive as the primary or secondary Media Type. The USB drive must be attached to the USB Storage port on the front of the Helo.



In the **Streaming Profiles Menu**, choose a **Streaming Template**.
For You Tube, it is recommended to select 1080p High 5Mb.
Remember to Apply the setting.

The screenshot displays the HELO web interface for an Aja Video System. The top header features the 'HELO' logo and the 'AJA VIDEO SYSTEMS' logo. The left sidebar contains a 'Menu' with options: Status, Config, Scheduler, Recording Profiles, Streaming Profiles (highlighted), Presets, Network, and Firmware. Below the menu are 'Recordings' (Primary: SD 0, Secondary: None 0) and 'Alarms' (None). The main content area is titled 'aja-helo-1HE004261' and shows a live video feed of a building. To the right of the feed are three settings: 'Recording Profile Name 1 Copy' (dropdown), 'Independent Codecs' (dropdown), and 'Streaming Profile Name 1 Copy' (dropdown). Below these are three configuration sections: 'Import Streaming Settings', 'Streaming Template' (set to '1080p High 5Mb' with an 'Apply' button), 'Streaming Profile Copy From' (set to 'Streaming Profile Name 1 Copy' with an 'Apply' button), and 'Streaming Profile Settings' (set to 'Streaming Profile Name 1 Copy'). The right sidebar shows 'Connection' (Serial Number: 1HE004261, Software Version: 2.0.1.6-7r, Connection Status: Connected) and 'Network' (aja-helo-1HE004261).

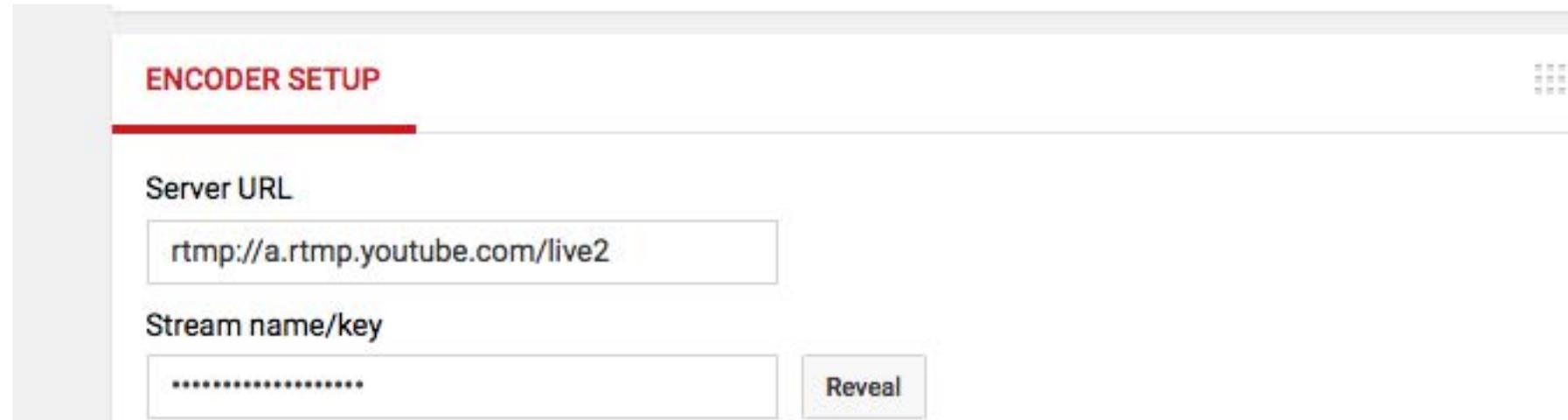
Log into your Google account and select the You Tube App.
Go to You Tube Studio (beta) but then select Creator Studio Classic.
This is the current state of affairs at You Tube streaming as of the writing of this guide.



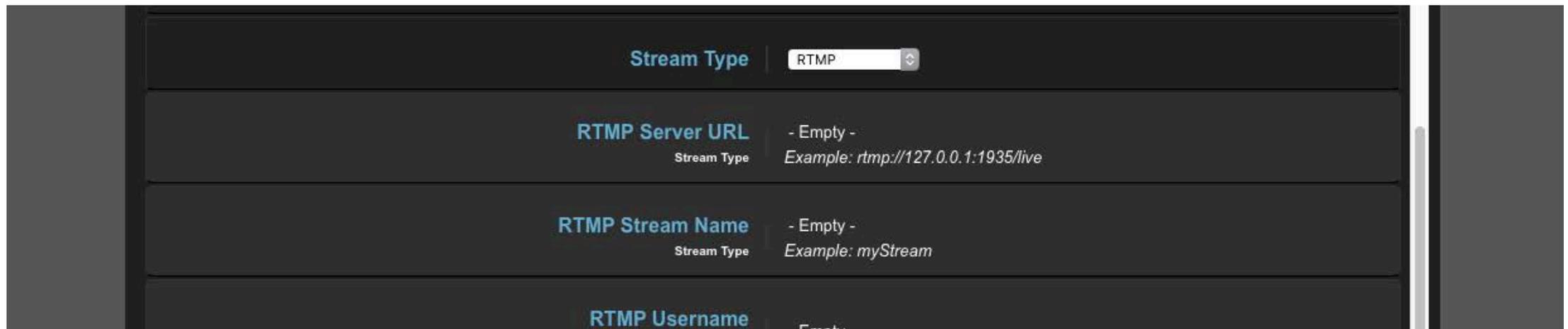
On the Creator Studio/Live Streaming/Stream now page, under **Basic Info/Encoder Setup** look for the **Server URL** and **Stream Name/Key**.

The screenshot shows the YouTube Creator Studio interface for a user named 'cdavideo'. The top navigation bar includes the YouTube logo, a search bar, and a 'Welcome back, cdavideo!' message with a link to a FAQ. The left sidebar contains navigation options: CREATOR STUDIO, YOUTUBE STUDIO BETA, DASHBOARD, VIDEO MANAGER, LIVE STREAMING (highlighted), Stream now (highlighted), Events, Camera (marked NEW), COMMUNITY, CHANNEL, ANALYTICS, TRANSLATIONS & TRANSCRIPTIONS, and CREATE. The main content area shows a large video player with a 'Live stream offline' message. Below the player are buttons for 'Create highlight' and 'Change thumbnail'. The bottom section is divided into tabs: BASIC INFO (selected), STREAM OPTIONS, and CARDS. The 'BASIC INFO' tab shows a text input field containing 'cdavideo Live Stream'. On the right side, there is a 'LIVE STREAMING CHECKLIST' with items: 'Set up encoding software', 'Add stream info', 'Optional features', and 'Go live'. A 'Top chat' section is also visible at the bottom right.

In the Helo Streaming Profile the **Stream Type** should be set to **RTMP**. Enter the You Tube Server URL in the Helo **RTMP Server URL** field and the You Tube Stream Name/key in the Helo **RTMP Stream Name** field (by clicking on the word "empty" to enter). You have to reveal the Stream name in You Tube to copy it.



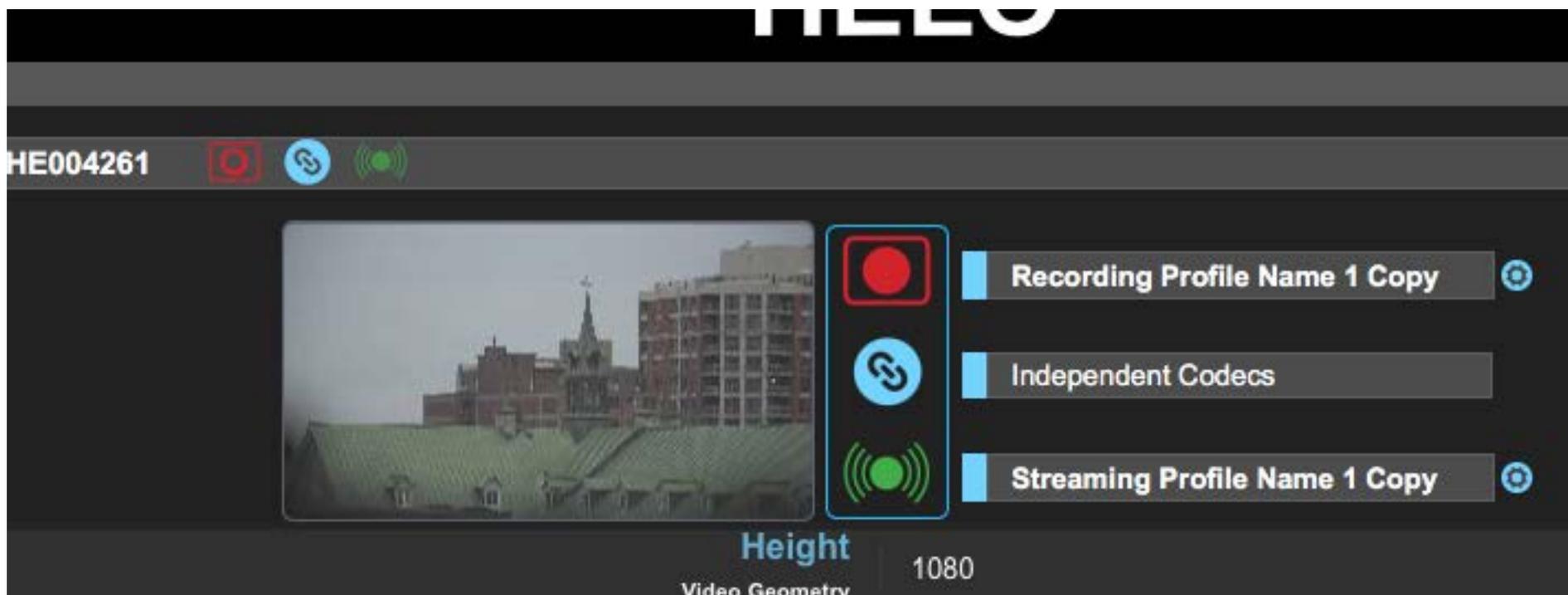
The screenshot shows a web interface titled "ENCODER SETUP" in red text. Below the title is a red horizontal line. There are two main input sections. The first is labeled "Server URL" and contains a text box with the value "rtmp://a.rtmp.youtube.com/live2". The second is labeled "Stream name/key" and contains a text box with ten asterisks. To the right of this text box is a button labeled "Reveal".



The screenshot shows a dark-themed configuration panel. At the top, "Stream Type" is set to "RTMP" in a dropdown menu. Below this are three rows of configuration options, each with a label and a value:

RTMP Server URL Stream Type	- Empty - Example: rtmp://127.0.0.1:1935/live
RTMP Stream Name Stream Type	- Empty - Example: myStream
RTMP Username	Empty

You are now ready to begin streaming and recording. In the Helo Preview window, click the green button to begin streaming and the red button to begin recording. If the blue link button in the middle is active, then either the red or green button will begin streaming and recording simultaneously.



The green lights flash next to the Record and Stream buttons and the SD Card slot. This indicates that streaming and recording is taking place. You can also use these buttons on the front of the Helo to begin or stop streaming and recording.



The stream should be live on your YouTube Creator Studio page and YouTube Channel.
The stream will also be recorded by YouTube.

The screenshot displays the YouTube Creator Studio interface during a live stream. At the top left, the YouTube logo is visible with a 'CA' region indicator. A search bar is located to the right of the logo. In the top right corner, there are icons for a user profile and a notification bell.

The left sidebar contains the 'CREATOR STUDIO' navigation menu with the following items: 'YOUTUBE STUDIO BETA', 'DASHBOARD', 'VIDEO MANAGER', 'LIVE STREAMING' (highlighted in red), 'Stream now' (highlighted in red), 'Events', 'Camera' (marked with a 'NEW' badge), 'COMMUNITY', 'CHANNEL', 'ANALYTICS', 'TRANSLATIONS & TRANSCRIPTIONS', and 'CREATE'.

The main content area features a 'LIVE' indicator with a green dot and 'Stream health' status. To the right, it shows 'Elapsed time' as 00:03:44 and '1 Watching'.

The central video player shows a live stream of a cityscape with a prominent green-roofed building in the foreground and a church spire in the background.

Below the video player are two buttons: 'Create highlight' and 'Change thumbnail'. At the bottom of the main area, there are three tabs: 'BASIC INFO' (highlighted), 'STREAM OPTIONS', and 'CARDS'.

On the right side, there is a 'LIVE STREAMING CHECKLIST' with the following items: 'Set up encoding software', 'Add stream info', 'Optional features', and 'Go live'. A 'Don't show these tips again' option is located below the checklist. Below the checklist is a 'Top chat' section with a settings gear icon and a vertical ellipsis menu.

If the indicator color of the stream turns yellow you can check the stream health.
If the stream is still OK then there is nothing to change. The error can be disregarded.

CREATOR STUDIO

YOUTUBE STUDIO BETA

DASHBOARD

VIDEO MANAGER

LIVE STREAMING

Stream now

Events

Camera

COMMUNITY

CHANNEL

ANALYTICS

TRANSLATIONS & TRANSCRIPTIONS

CREATE

LIVE
Stream health

You are live
The Internet can totally see you now. To stop, use your encode

Create highlight

Change thumbnail

BASIC INFO

STREAM OPTIONS

CARDS

ANALYTICS

STREAM HEALTH

3:55 PM Good Stream is healthy
Stream health is excellent.

3:53 PM OK Check resolution
Please check the video resolution. The current resolution is (1920x1080), which is not optimal.

3:52 PM No data No active stream

More Options

- You can schedule Events with You Tube Creator Studio. This is useful if you wish to publicize a live stream.
- Please look in the help menu at You Tube and the AJA Helo user guide for more detailed information.