

Manual Camera and Audio Guide

Step-by-step directions for programming a (non-Pixelot) manual camera operation for Away Games or broadcasts where the automated camera isn't available or desired.

Please note: to live-stream a manual camera broadcast, you need at least three people to do this. One to Film the game with a video broadcast camera, at least one to Announce, and one to work the software (including all time and scoring functions, and an announcer). Sometimes the Announcer can also work the software, but this is difficult to do.

- **Live-stream Broadcast Components you'll need:**

- **Laptop Computer and power cord**
- **NFHS Software** to program events
- **Producer Software** to run live-stream broadcasts
- **HD SunWSTD HD or StarTech Image Capture Device**
- **Audio Mixer, power cord**
- **Video Camera and charged batteries**
- **Charged MiFi (if no ethernet is available)**
- **C-to-multiple ports device**
- **Cables:**
 - HDMI cable to connect camera to Image Capture Device (In)
 - USB-to-C cable to connect Image Capture Device to Laptop
 - Audio cable to attach Image Capture Device
 - MiFi to connect to PC for wireless connection - OR - ethernet cable connect to PC (if available)
- **NFHS Mobile App** (start with console.nfhsnetwork.com)
- **NOTE:** Connect all components before starting the Laptop

- **Game Day - equipment set-up:**

- Make sure MiFi is fully charged
- Make sure Camera Batteries are fully charged
- Make sure Laptop is fully charged
- Ensure game is accurately programmed in NFHS software
- Connect C-to-multiple port device on the Laptop
- Connect camera to Image Capture device Port 'IN' with HDMI cable
- Connect Image Capture Device to Laptop via USB port
- Connect Audio Cable to Image Capture Device or Laptop Audio Port
- Connect Laptop to internet/ethernet
- Plug in and turn on Laptop
- Set up Audio Mixer and Components (see below)
- **NOTE:** Set up all equipment before initiating software setup

Setting Up Audio Mixer: Required Headset and Cables



Headset



Audio Cable

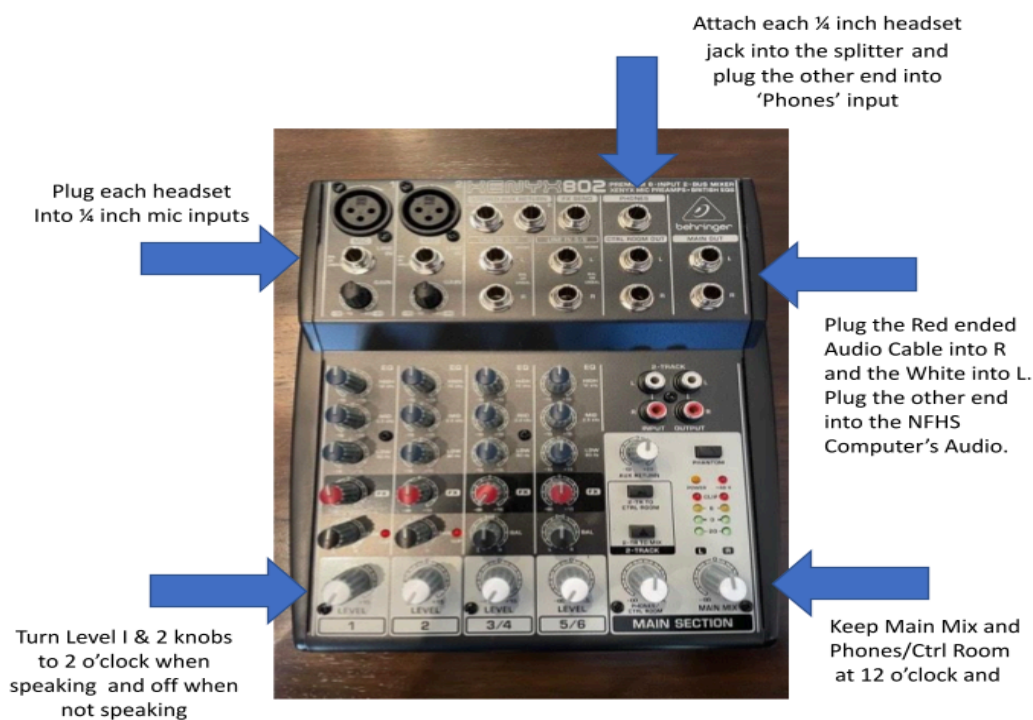


Splitter



Extension Cable

Setting up Audio Mixer - connections:



When you plug Audio Mixer in, make sure you see the yellow power light on. Add components as per the diagram above. Only 4 toggle switches matter:

- Keep Main Mix and Phone/Ctrl Room at 12 o'clock at all times.
- **When not announcing – turn Level 1 & 2 volume fully to the left – to discontinue audio. When resuming, turn Level 1 & 2 to 2 o'clock.**

Detailed Instructions: Setting Up the Audio Mixer

- **Plug in the Audio Mixer** (see yellow power light on)
- **Set up the headsets**
 - Plug each ¼ inch gray headset jack into the upper left Mic 1 & 2 inputs
 - Plug each ¼ inch black headset jack into the two-sided end of the splitter
 - Plug the single ¼ inch splitter jack into the 'Phones' input on upper right
- **Connect the Audio Mixer to NFHS**
 - Plug each ¼ inch jack of the Audio Cable into the Main Out slots on the upper right of the Audio Mixer. Put the red jack in R, the white jack in L
 - Plug Audio Cable single jack into the Laptop's Audio Port
 - Turn the Level 1 & 2 White knobs on Mixer's lower left to -∞
 - Turn all the other knobs to the 12:00 o'clock position
- **When you begin to broadcast:**
 - Turn the lower left Level 1 & 2 knobs to the 2:00 o'clock position to activate the headset mics (Level 1 = left headset; Level 2 = right headset)
- **When you want to stop broadcasting or stop announcing**
 - Turn the lower left Level 1 & 2 knobs to -∞ to disable microphone

Here is how the assembled Audio Mixer should look:



Here is how the entire set up should look:



Once the full system is set up, login to the Computer. The login ID is Campo FB. Ask Campo's Live-stream Broadcast Producer for the current Password.

Open the browser and go to the NFHS Console site (console.nfhsnetwork.com) and login. The login ID is president@campoathleticboosters.com. Ask Campo's Live-stream Broadcast Producer for the current password.

Two software apps are needed to live-stream: The **NFHS Console** that launches the live-stream - and the **Producer software** that manages the broadcast.

NOTE: set up equipment, cables and connections BEFORE launching software.

NFHS Console Software

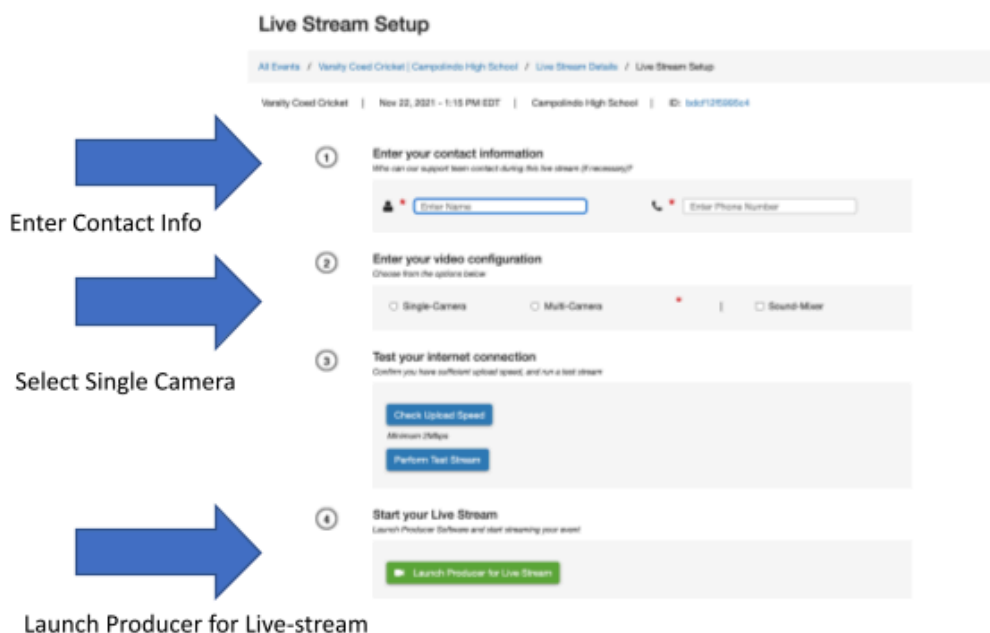
Launch the NFHS Console Software (console.nfhsnetwork.com) and search by date for the game scheduled for live-stream. Click on the green 'Produce Stream' button for that game.



Click on Produce Stream

Game	Team 1	Team 2	Location	Date/Time	Status	Produce Stream
Varsity Coast Cricket	Campolindo High School	Varsity Coast Cricket	Campolindo High School	Nov 22, 2021 - 1:15 PM EDT	Scheduled	Produce Stream
Varsity Coast Cricket	Campolindo High School	Varsity Coast Cricket	Campolindo High School	Nov 22, 2021 - 1:15 PM EDT	Scheduled	Produce Stream
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On the next screen, fill out Contact Info, click on the Single Camera button, and click on the green Launch Producer for Live-stream link.



Live Stream Setup

All Events / Varsity Coast Cricket | Campolindo High School / Live Stream Details / Live Stream Setup

Varsity Coast Cricket | Nov 22, 2021 - 1:15 PM EDT | Campolindo High School | ID: [bck12500004](#)

- Enter your contact information
Who can our support team contact during this live stream (if necessary)?
- Enter your video configuration
Choose from the options below:
☒ Single Camera ☐ Multi-Cameras ☐ Sound-Mixer
- Test your internet connection
Confirm you have sufficient upload speed, and run a test stream:
- Start your Live Stream
Launch Producer Software and start streaming your event:

Enter Contact Info

Select Single Camera

Launch Producer for Live-stream

Two Producer Software screens manage the live-stream Broadcast:

NFHS Producer Software - first screen

After the Stream is launched, after a few seconds, the first Producer Software screen appears.

In the Video Device drop-down, select FHD Capture. In Audio Device drop-down, select Microphone Array (Realtrek High Definition). Click on the button with the highest resolution. In the Overlay Package drop-down, select the sport you are broadcasting.

If the camera is plugged in, you'll see the picture. If the audio is plugged in you'll see green/yellow bars on the left of the picture. You should see both the picture and see the audio lines before you hit Continue. If there, hit Continue at the bottom of the screen.

The screenshot shows the 'NFHS NETWORK Producer - Settings' window. It is divided into two main panels: 'Capture Device Settings' on the left and 'Production Settings' on the right. The 'Capture Device Settings' panel includes a 'Select Capture Device' section with radio buttons for 'StarTech' and 'Elgato'. Below this is a video preview window showing a Christmas tree, with audio levels indicated by green and yellow bars on the left. Under the preview are dropdown menus for 'Video Device' (set to 'StarTech Video 01'), 'Video Line' (set to 'HDMI'), and 'Audio Device' (set to 'Microphone Array (Intel® Smart Sound Tec)'). There are also buttons for 'Video Settings', 'Output Directory', and a text field for the output path. The 'Production Settings' panel includes a 'Select Resolution' section with radio buttons for '360p' and '720p', a checked 'Video Smoothing' option with a warning 'CPU Too Slow for 10800p' and a 'Speed Test' button, an 'Overlay Package' dropdown set to 'Track & Field', and a 'Network Speed Probing' dropdown set to 'Probe Network Once at Startup'. At the bottom are 'Continue' and 'Cancel' buttons. Annotations with blue arrows point to specific elements: 'See Pic & Audio' points to the video preview; 'Select FHD' points to the 'Video Device' dropdown; 'Select Micro-Phone Array' points to the 'Audio Device' dropdown; 'Hit Continue' points to the 'Continue' button; 'Select the highest resolution' points to the '720p' radio button; and 'Select Sport' points to the 'Overlay Package' dropdown.

See Pic & Audio

Select FHD

Select Micro-Phone Array

Hit Continue

Select the highest resolution

Select Sport

NFHS Producer Software - second screen

Within a few seconds after clicking 'continue' on the previous screen, the second NFHS Producer Software screen appears. This will be the main screen for the duration of the live-stream.

First click on the type of graphic (usually the Score Strip graphic) you want displayed on the screen - in the lower left box). After clicking graphic, the bottom right screen populates with all the buttons you'll need to keep score (or enter other information). To make the graphic appear on the live-stream hit the blue 'Submit' button.

In the upper right box, you should see the picture, see the green bars on the left of the picture change with the audio, and the scoreboard (or other) graphic.

When you are ready to broadcast - first click the green 'Start Stream' button. When the 'Go On Air' button appears, click on it. You'll see 2 green check marks above the picture window indicating you're live and are broadcasting.

The screenshot shows the NFHS Producer Software interface. A large blue arrow points from the text 'Click on Start Stream then On Air to start broadcast' to the 'Start Stream' button. Another blue arrow points from the text 'After you click Start Stream and On Air - the two Red check marks turn to Green' to the two red checkmarks above the picture window. A third blue arrow points from the text 'See picture, audio, graphic' to the picture window. A fourth blue arrow points from the text 'Hit Submit after selecting graphic for graphic to appear on screen' to the 'Submit' button. A fifth blue arrow points from the text 'Select scoreboard or graphic you want to appear on screen' to the 'Scoreboard' button in the lower left box.

Click on Start Stream then On Air to start broadcast

After you click Start Stream and On Air - the two Red check marks turn to Green

See picture, audio, graphic

Hit Submit after selecting graphic for graphic to appear on screen

Select scoreboard or graphic you want to appear on screen

When you want to stop broadcasting the event, click on the Red Go Off Air button - and then click on the Gray Stop Stream button. You have now concluded the broadcasted event.

Troubleshooting: **[this section still under development]**

- **If the Camera is not rendering a Picture:**
 - Xxx
 - Xxx
 - Xxx
- **If audio is not working:**
 - Make sure the Audio Mixer is plugged in (yellow power light should be on)
 - Make sure the cable from the Audio Mixer to the NFHS computer is securely connected to the correct port on the back of the NFHS computer
 - Make sure each of the headset connections are securely connected (eg, the ¼ inch jacks are correctly connected to both the splitter and the main headset connection; make sure the two-ended audio cable are correctly connected on the Audio Mixer)
 - Make sure the Level 1 and Level 2 dials are turned to the 2 o'clock position
- **If the scoreboard ribbon or image is not working:**
 - Make sure the scoreboard details are showing on the main scoreboard
 - Make sure both ¼ scoreboard jacks are plugged into the back of the Scoreboard controller in the main room of the Press Box
 - If yest to both of the above and the details are still not showing on the scoreboard ribbon - and/or the scoreboard image is not rendering on the lower right of the screen - call NFHS Tech Support to help correct
- **If there is no broadcast:**
 - Make sure the game is accurately programmed in the Console.nfhsnetwork.com scheduler
 - If not, reprogram (NOTE: you need to program an event for a minimum of 20 minutes later than the time you begin programming the event)

Links to Campo Live-stream Broadcast User Guides - 11/26/21

1. [Main Gym Automated Camera and Audio Guide](#)

Pixelott Broadcast with Announcing

2. [Stadium Automated Camera and Audio Guide](#)

Pixelott Broadcast with Announcing

3. [Stadium Manual Camera and Audio Guide](#)

Manual Camera operation using the Computer/system

4. [Pre- and Post- Game Show Manual Camera and Audio Guide](#)

Instructions for setting up a manual broadcast - including for pre- and post- game shows, half-time shows, other events, using Dell system

5. [Live-stream Announcing Guide](#)

Guidelines, preparation worksheet, audio equipment setup

6. [NFHS Schedule Programming Guide - Pixelot](#)

Programming NFHS broadcasts using the automated camera

7. [NFHS Schedule Programming Guide - Manual](#)

Programming NFHS broadcasts using Manual Camera

8. [Manual Scoreboard Guide](#)

Operating the scoreboard for manual broadcasts

9. [Videography \(filming\) Guide](#)

Live-filming events at the Stadium, Pool, Ball Fields, Gym