This document explains the process to live stream from the JVC GY-HM660U remote camcorder.

**ON CAMPUS** - The following instructions are for on campus use. This uses the "UTexas Guest" Wi-Fi

<table>
<thead>
<tr>
<th>You need to reserve on Usher two pieces of equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benro KH25N Tripod - 01 - Item # M00599</td>
</tr>
<tr>
<td>JVC Live Remote Camera - Item # M00061</td>
</tr>
</tbody>
</table>

**BEFORE YOUR SHOOT CHARGE THE BATTERIES**

Setup the remote camera like you normally would.

Probably with a tripod.
Plug your lav or handheld into Input 1.
If you do not, the control room will not have audio from you.

Make sure your Audio input settings are correct.
Channel 1 should be set to Input 1.

Power On the camcorder by pushing in the blue release button and sliding the switch to the ON position.
This symbol will flash and then turn solid yellow.

It will turn from solid yellow to solid white.

When it looks like this it is ready to stream to the control room.

Press the OIS/2 button.

This will start streaming video back to the control room.

You should see a little red “LIVE” icon in the top of the camera view finder screen

NOTE IF IT DOES NOT TURN SOLID WHITE CHECK THESE SETTINGS
Press the menu thumb button to get into the camera settings menu.

Use the thumb joystick to navigate to the “System...” menu and either press in on the joystick or click to the right.

Make sure that Network is set to ON (SDI Off).
Scroll down to "Settings..." under Network and either click right or press in on the joystick

Go to "Connection Setup..."

Choose "Wizard"

"Wireless LAN" should be visible. Click right
<table>
<thead>
<tr>
<th>Choose &quot;Connect with Access Point&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click right</td>
</tr>
</tbody>
</table>

![Select Connection Type](image1.png)

<table>
<thead>
<tr>
<th>Choose &quot;Search Access Point&quot; on the camera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press next on the camera</td>
</tr>
</tbody>
</table>

![Select Setup Type](image2.png)

<table>
<thead>
<tr>
<th>Choose Utexas-iot</th>
</tr>
</thead>
</table>

![Select Access Point](image3.png)
type in the IOT 578437192568220 password this is the default code made by tech staff
Do this by pressing in on the joystick button...in the same direction that you would push the menu/thumb or cancel buttons.
click "Set"
click Next
Select DHCP
click Next
it may take a while to connect...
...like 30 seconds

when the "Connected" screen comes up
click next

choose "No Proxy"
press right on the thumb joystick to "Apply"
Push in on the joystick "like a button" to "Finish"

hit Left to jump out of the "Connection Setup..." menu

Choose "Live Streaming Set..."

Make sure "Live Streaming" is Off
We've chosen “Server 1
Resolution = 1280 x 720
Frame & Bit Rate = 30p
Bit Rate(8.0M)

Camera will reboot when changing resolution

Press the menu thumb button to get into the camera settings menu

Use the thumb joystick to navigate to the “System...” menu and either press in on the joystick or click to the right
..to the indented "Settings..." under Network and either click right or press in on the joystick

Choose "Live Streaming Set..."

Choose "Streaming Server..."
Choose "Server1"

Alias = Server1 - Enter all these settings
Type = MPEG2-TS / UDP
Destination Address = 129.116.193.86
Destination Port = 6504
PCR Jitter = Low

Press the "CANCEL" button to jump out of the menu (4 times)
| **This symbol should turn from yellow to white when the camera is ready to stream.** |
| **If all of these settings are put into the camera and the camera is turned off, it may take up to 2 minutes for the camera to be ready to stream again.** |
| **Press the OIS/2 button.** |
| **This will start streaming video back to the control room.** |
| **You should see a little red “LIVE” icon in the top of the camera view finder screen** |
|  |
| **IF THE OIS/2 BUTTON DOES NOT WORK GO INTO THE FOLLOWING MENUS** |
| Press the menu button |
choose "System..."

Choose "Settings..." under Network

Choose "Live Streaming Set..."
Choose "Live Streaming"

Set "Live Streaming" to "On"
Press the "CANCEL" button 4 times

You should see a little red "LIVE" icon in the top of the camera view finder screen

Turn on the IFB

Make sure your Headphones or IFB is plugged into the headphones port from the camera.
You will need to have network connectivity for the IFB to function correctly.

This symbol under the TC readout means you have network connectivity.

Press the "LOLUX/3" button.

This symbol will appear under the TC readout when IFB streaming is enabled and working correctly.

Now the control room can speak to you through headphones connected to the camera.

IF THE IFB DOESN'T CONNECT GO INTO THESE MENUS BELOW
You will need to have network connectivity for the IFB to function correctly.

You should see this symbol under the TC readout. (not flashing)

The screen grab to the right shows a system that would not function because the symbol is not present.

Press the Menu button on the flip out LCD to bring up the main menu.

Choose "System..."
Choose "Network > Settings..."

which is indented under Network

Choose "IFB Set..."

Make sure the IFB Settings match the DEVA settings. In our example, we have these settings:

IFB Function = Enable
Server Address = 129.116.193.97
Server Port = 8000
Mountpoint stream
When you choose the IP to Set, this is the screen that pops up. We used 129.116.193.97

Click Set after you enter in the IP

Now, Start the stream by clicking on "IFB Streaming"

Change from Stop to Start

Or jump out of the menu
Press the "CANCEL" button 4 times

This symbol will appear under the TC readout when IFB streaming is enabled and working correctly.

This symbol will appear if there is an issue. Double check your settings and try again.

How the control room talks to remote camera talent/operator
Press and hold the REMOTE IFB button on the panel above the mixing console to speak to the remote remote camera in the field.

Press and hold the REMOTE IFB button on the panel in the producer area to speak to the remote remote camera in the field.

On the audio board the audio from the remote camera will come up on REM.

On the Program bus choose REMOTE / CAM.
Tech Staff go here for secure documents: CMB 4.130 TV Production Control Room - Broadcast Journalism Remote Cam