

Lights!
Camera!
Action!

Video Production Products
by



Learning Labs, Inc.

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Video Production Equipment

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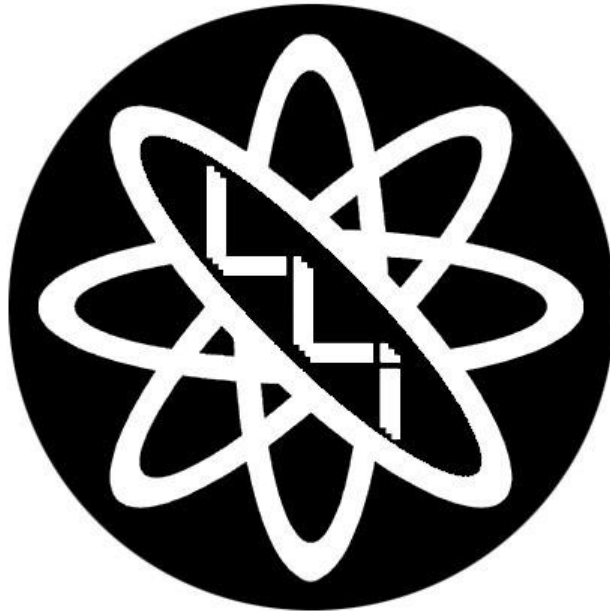
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Suggested Equipment List*



www.LLI.com

sales.dept@lli.com

1-800-334-4943

*models and specs subject to change

	Television Broadcast and Video Production Package
	Studio & Control Room Equipment
QTY	Description
2	Sony PXW-X70 Professional XDCAM Compact Camcorder
2	Sony SKB Hard Carrying Case for PXW-X70 Camera
2	Remote Control for PXW-X70
	Tally Lights(for studio cameras)
2	Digital Arts TL-2-C Tally Light for Tally Controllers
2	Digital Arts metaSETZ TLC-8d Tally Light Controller with Intercom Pass Through
2	Kopul Premium Series 3G-SDI Cable (50 ft)
2	Pearstone Cat 5e Snagless Patch Cable (50', Black)
2	Teleprompter
	Heavy Duty Cine/Video Dolly w/Professional Tripod Legs + head (Black)
2	114 Heavy-Duty Cine/Video Dolly for Tripods with Round Feet
2	Fluid Head and 546B Tripod System with Carrying Bag
1	Impact Background System - White - Green - Black
2	Foot Prompter
1	Studio Portable Lights (IKAN LED)
2	Sony UWP-D11 Wireless Microphone
4	Studio Microphone - Laval
2	Auray TT-6220 Telescoping Tabletop Microphone Stand
	Hand Held Microphone w/Flags-White
2	Shure VP64A Omnidirectional Dynamic Handheld Microphone
2	Auray PMF-SW Premium Mic Flag (Square, White)
	Program Microphone w/ stand
2	Shure SM58-LC Vocal Microphone
2	Auray MS-5230F Tripod Microphone Stand w/ Fixed Boom
1	Shotgun Microphone
1	TriCaster TC1 w/ Control Surface Switcher/Graphic Generator
2	21.5" LED LCDI Monitor
1	KanexPro HDMI to 3G/HD/SD-SDI Converter
1	Mackie Premium 14-Channel Compact Mixer
	Console Rack - Required for Mounting Monitors & Mixers for the TriCaster TC1
1	4-Bay Low Profile Console 24" Counter
4	Sloped Rack Turret, 4RU
1	Sloped Counter Rack Space 8RU 14"
	Single LCD Monitor Articulating Arm, 28" Pole, Tilt, Swivel w/ mount, rated up to 40 lbs
1	
2	Rack Screws 100-pk
3	Blank Panel, 4RU Metal 7"
6	Blank Panel 2RU Metal 3.5"
1	25 ft 6pin to 6 pin to connect belt packs
1	6 pin to 3 pin y splitter for beltpack
1	Clear Com System/ 2 Channel Headset/Speaker Main Station
1	Clear Com System/Gooseneck Microphone
2	Clear Com System/2 Channel Backpack
3	Clear Com System/Single Ear Headset/Microphone

	Field Production / On Location Equipment
1	TriCaster Mini Advanced HD4 SDI Bundle with Control Surface & Travel Case
1	Mobile Bestview 17" Portable UHD 4K HDMI Quad-Split Broadcast Director's Monitor
2	100 Foot BNC - SDI Cable
1	Anker Powerhouse, Compact 400Wh / 120000mAh Portable Outlet, Generator
1	Sony PXW-X70 Professional XDCAM Compact Camcorder
1	Sony SKB Hard Carrying Case for PXW-X70 Camera
1	Remote Control for PXW-X70
1	Mackie Premium 12 channel compact mixer
1	Tripod with Head for Sony PXW-X70 Camcorder
3	Basic Camcorder
3	Camera Case for Basic Camcorder
5	32 GB SDCards
4	SanDisk 64GB Extreme UHS-I microSDXC Memory Card with SD Adapter
4	Tri Pods
4	Mono Pods
1	Nikon D-7200 DSLR Camera
2	Yuneec Typhoon Q500 4K "Drones"
2	GoPro HERO7 Black Kit with Head Strap, 64GB Card, Extra Battery, and Case
1	Field Lights (IKANportableLED)
2	Camera Light w/Rechargeable Battery
2	Sony UWP-D16 Premium 2-Person Camera-Mount Wireless Combo Microphone System Kit (UC14: 470 to 542 MHz)
4	Motorola Walkie Talkie
	Studio Furniture
Optional	16' Broadcast Studio / Stage
Optional	Sports Desk
Optional	TV NEWS BROADCASTING DESK 60"
	Cabling, Installation and Shipping
8	50 ft Mic Cables
1	Hosa Technology Pro Dual 1/4" TRS Male to Dual 1/4" TRS Male Stereo Audio Cable (20')
2	Pearstone 50' SDI Video Cable
2	Pearstone 25' SDI Video Cable
2	Pearstone 6' SDI Video Cable
2	Headphones (Need 1/4' jack)
2	6' VGA male to female cable for splitter
2	VGA Splitter for Teleprompter
2	6' HDMI Cable
1	Kopul Premium Series 3G-SDI Cable (50 ft)
1	Delivery, Installation and Setup of Equipment
	Total Television Broadcast and Video Production Equipment
	Supplied Locally, Not Included in this quote:
	NOTE: Learning Labs Does Not Supply the Computers, nor the Editing Software for this Program.

The most complete compact multimedia studio in the world...



TriCaster™ Mini

If you have ever wanted to create and publish video, stream live to the Web, or make even the most ordinary presentation look extraordinary—then you are going to love TriCaster Mini.

Whether you are new to video, adding live events or streaming to your production activities, or searching for a practical way to produce a multi-camera video program, no other all-in-one solution for capturing, mixing and presenting your own productions will get you network-television results like the ultra-portable TriCaster Mini.

But don't let the size and simplicity fool you. There's a whole studio's worth of capabilities packed into the TriCaster Mini, delivering the power, performance, and professional-quality results that NewTek is known for and that you won't get anywhere else.

What are you waiting for? Go make your show.

Why TriCaster Mini?

It's For Everyone

You don't have to be a video expert, own a studio or expensive broadcast cameras, or know your way around professional video production equipment. (But if you do, there's a Mini for you, too!)

- Use everyday camcorders or professional gear with plug-and-play ease
- Get started and explore further with a simple software interface
- Straightforward controls to start creating video immediately
- Room to grow your show with dozens of built-in capabilities

It's Easy to Set Up

The do-it-yourself setup of TriCaster Mini gets you up and running in minutes.

- All-in-one design eliminates racks of equipment
- Simple auto-detecting camera connections
- No complicated software installation or hardware configuration
- Ready to start using, right out of the box

It Has Everything You Need to Create

The most-complete creative toolset available lets you create and deliver amazing presentations to screens and audiences of all sizes.

- Switch cameras, build video playlists, add graphics and titles, mix audio, and dazzle with effects like virtual sets and animated transitions
- Network with computers and wireless iOS devices for presentations and screen sharing
- Stream to the Web, record for on-demand viewing, and publish in real time to Facebook, Twitter and YouTube

It Goes Anywhere

Save space and travel light with the smallest TriCaster ever.

- Compact design sized just right for any office, event space, or desktop
- Lightweight and ultra-portable for making your show on the go



...that makes your ordinary presentations look extraordinary. 

Video & Audio	
Video Input*	Plug-and-play input of up to 4 live cameras
Network Inputs	Choose from any number of supported devices on the same network, including computers, IP sources, wireless Apple® AirPlay® devices, NewTek TalkShow™, 3Play™, webcams, and more
Audio Inputs*	Embedded audio from each of the 4 live video inputs, plus 1/4" jacks for a microphone and stereo audio mixer
Video Outputs*	Deliver to 4 different destinations, with 2 live video outputs and 2 video-only display ports (HDMI and DVI)
Network Outputs	Ethernet port for HD streaming live to the Web, publishing to social media platforms, distributing content to servers and storage locations, and output to other TriCaster systems
Audio Outputs*	Embedded audio on both video outputs, plus 1/4" jacks for stereo output and headphones
Video Resolutions	NTSC: 1080/30p, 1080/60i, 720/60p, 720/30p, 480/60i (Multi-Standard also includes: NTSC-J 1080/30p, 1080/60i, 720/60p, 720/30p, 480/60i; and PAL 1080/25p, 1080/50i, 720/50p, 720/25p, 576/25i)

Real-Time	
Streaming	HD live streaming with presets up to 720p, support for most common streaming profiles and custom multi-bitrate streaming profiles (including RTMP streaming and browser-based streaming applications), and auto-save of Web-ready stream file for video on demand (VOD) upload
Recording *	Full-resolution recording of up to 4 simultaneous video input or output signals in QuickTime®, MPEG-2, AVI or H.264 file formats
Publishing	Upload video and images directly to YouTube, Facebook and Twitter, export content to FTP servers, and copy files to storage locations

Tools	
Video Switching	16-channel video mixer with 2 overlay channels for mixing sources and creating multi-layer compositions
Audio Mixing	Multi-channel software audio mixer for managing camera audio plus internal and external audio sources, outputs, recorded audio, stream audio, and headphones
Multimedia	5 digital media players for video, graphics and sounds, plus 15 buffers for still images and titles
Mix Effects	4 M/E channels, each with independent switcher and key layer, for advanced video mixing, compositing, effects and virtual sets
Transitions & FX	Built-in effects engine for transitions, animation stores, and real-time 3D video warping, plus included Animation Store Creator for custom effects
Virtual Sets	30+ HD live virtual sets with multiple camera angles, shot presets, realistic virtual camera movements, and real-time reflections, plus support for custom holographic virtual sets
Macros	Record your favorite go-to settings, commands, or operation sequences, then create custom one-step shortcuts to simplify or automate control

Physical	
Size	4.6 x 9.2 x 7.9 in (11.7 x 23.4 x 20.1 cm)
Weight	9 lbs (4.1 kg)
Case Display *	7.0 in (17.8 cm) LCD screen for output display
Monitoring	DVI and HDMI monitor outputs to display user interface and multiview preview, with selectable layouts and customizable video windows
Storage *	2 x 750GB internal drives accommodating a total of ~30 hours of HD video (varies by resolution and format; capacity expandable using external supported storage)
Optional Hardware Control Surface	Professional, studio-style workflow for live video productions of any size Dimensions: 16.5625 x 2.25 x 8 in (42.0624 x 20.32 x 5.715 cm)

Subject to change without notice.

HDMI and SDI options available. Hardware configuration varies by model.

* Input, output, recording and storage specifications vary between models. Case display not available on all models.

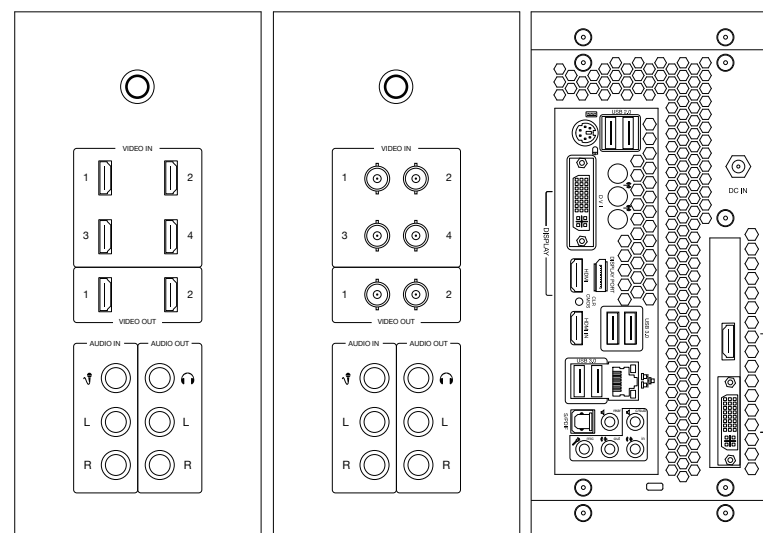
For complete technical specifications, please visit the TriCaster Mini product page at www.newtek.com.

Multi-Standard pricing and availability may vary. Please contact your local reseller for details.

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NX-001871-0001, Rev.06

Learn More Online.





Switching, streaming, recording in HD, 3G, and 4K UHD 60p

Native software driven processing for maximum production power and flexibility

Comprehensive camera coverage and compelling multi-source video mixing, including 16 external inputs and 4 M/Es

Studio-grade Skype® video calling with multi-channel Skype TX software integration

Integrated video servers allowing playback, replay, and live editing without any additional hardware

Dual-channel live streaming to Facebook Live, Microsoft® Azure®, Periscope, Twitch, YouTube™ Live, and more

Real-time social media sharing to Facebook, Imgur, LinkedIn, Twitter, Vimeo, YouTube, and more

Powerful production automation with custom macro commands, sophisticated full-motion compositing, and flexible control options

Advanced audio mixing with multi-source configuration and control, professional DSPs, and 4 x 4 x 4 channel routing

Premier creative capabilities, including multi-bus mix effects, animated titles and transitions, advanced chromakeying, spectacular live virtual sets, and

Feel Invincible.

When you're confident in what you're doing, it shows. With TriCaster TC1, you have the proven workflows you know and the future-proof production you covet. The bottom line is being able to do production the way you need to right now and the way you want to when you are ready.



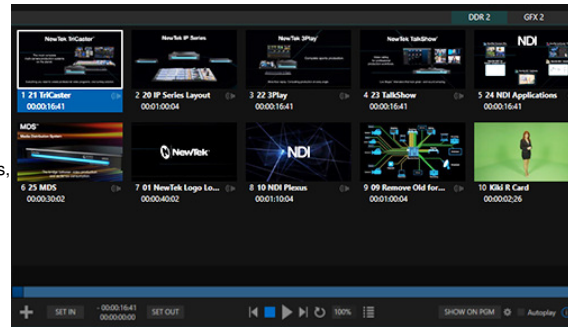


Real 4K Ultra HD. No Compromise.

Present your audience with an immersive viewing experience defined by amazing clarity and incredible detail. Produce programs, performances, events and live sports in true 4K UHD (Ultra High Definition) resolution with support for native 2160p video at 60 frames per second. Unlike other products that promise 4K UHD, only TriCaster TC1 allows you to switch, stream and record 4K UHD video without compromising the frame rate or the number of available inputs.

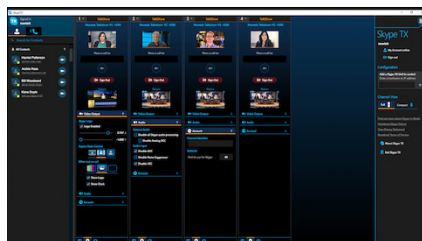
Built-In Video Servers

No decks needed—just add your files with two built-in video servers for on-demand and automated playback, including auto-advancing playlists, on-cue instant replay, live-edited highlight reels, and much more. With responsive player controls, presets, real-time editing tools, selectable transitions, and playlist effects, you have everything needed to make magic from your stored media.



Multi-Source Video Mixing

Viewers have their choice of devices. You should have options, too. With 36 source channels, including 16 external inputs, you can easily create compelling content using any combination of compatible video sources, including 3G-SDI, HD-SDI and PTZ cameras, mobile devices, Skype TX video calls, computers, gaming systems, streaming media, video files, graphics, images, animations and more.

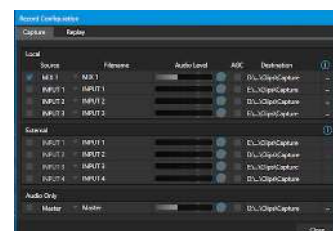


Recording and Replay

Capture all the angles, record multiple channels of full-resolution video to QuickTime® or H.264 files. From archiving the master cut for your content library, to ingesting the raw camera footage for post-production, to caching production extras and presentation materials for on-demand—even capturing real-time highlights for instant replay—TriCaster TC1 easily handles the work of multiple professional decks without the added expense.

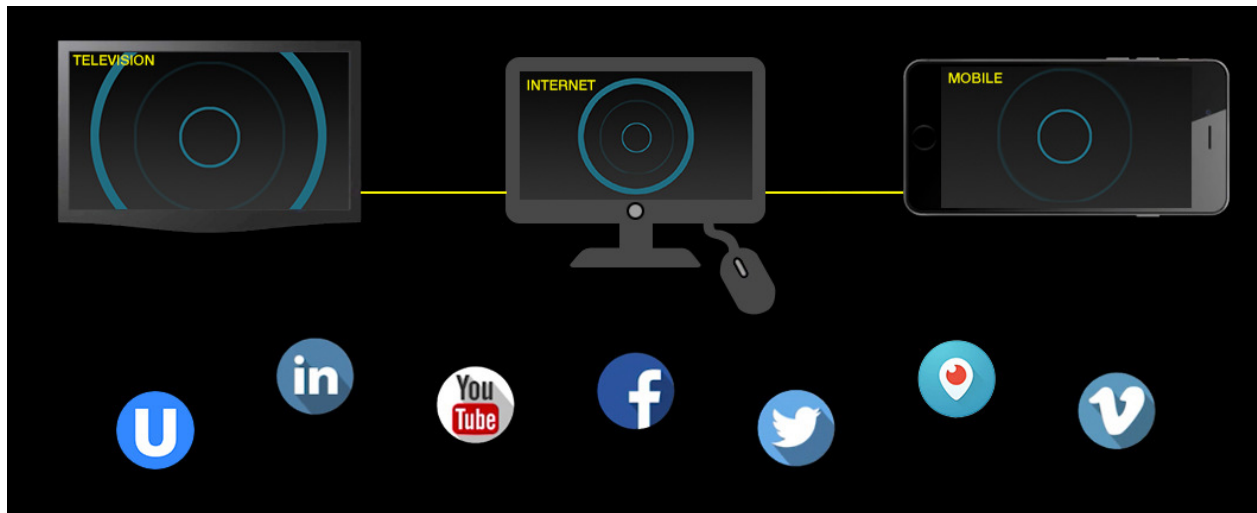
Multi-Channel Skype

Conduct a live Skype video call with any remote guest, anywhere in the world. TriCaster TC1 is the only video production system to feature direct Skype TX software integration. The studio-grade version of the popular app, Skype TX enhances the real-time interaction with broadcast-quality video and balanced audio, allowing you to present production-ready conversations, interviews, reports, and more—regardless of the caller's device.



Dual-Channel Live Streaming

Stream live to your choice of new media platforms, including user-friendly presets for Facebook Live, Microsoft® Azure®, Periscope, Twitch, YouTube™ Live, and more. With two streaming encoders included, you can easily deliver platform-specific content, while opening up new sponsorship and revenue opportunities.



Social Media Integration

Share real-time updates and on-demand content across your social media accounts, uploading images and video directly to Facebook, Imgur, LinkedIn, Twitter, Vimeo, YouTube and more—complete with comments and hashtags. Plus, with integrated DataLink™, you can add posts and photos from your social networks in on-screen graphics for a truly interactive experience.

Premium Performance. Choice Control.

With precision software-based control, your choice of two companion control panels, and optional Web-based interface, TriCaster TC1 is designed to suit the operator and environment for any a production.

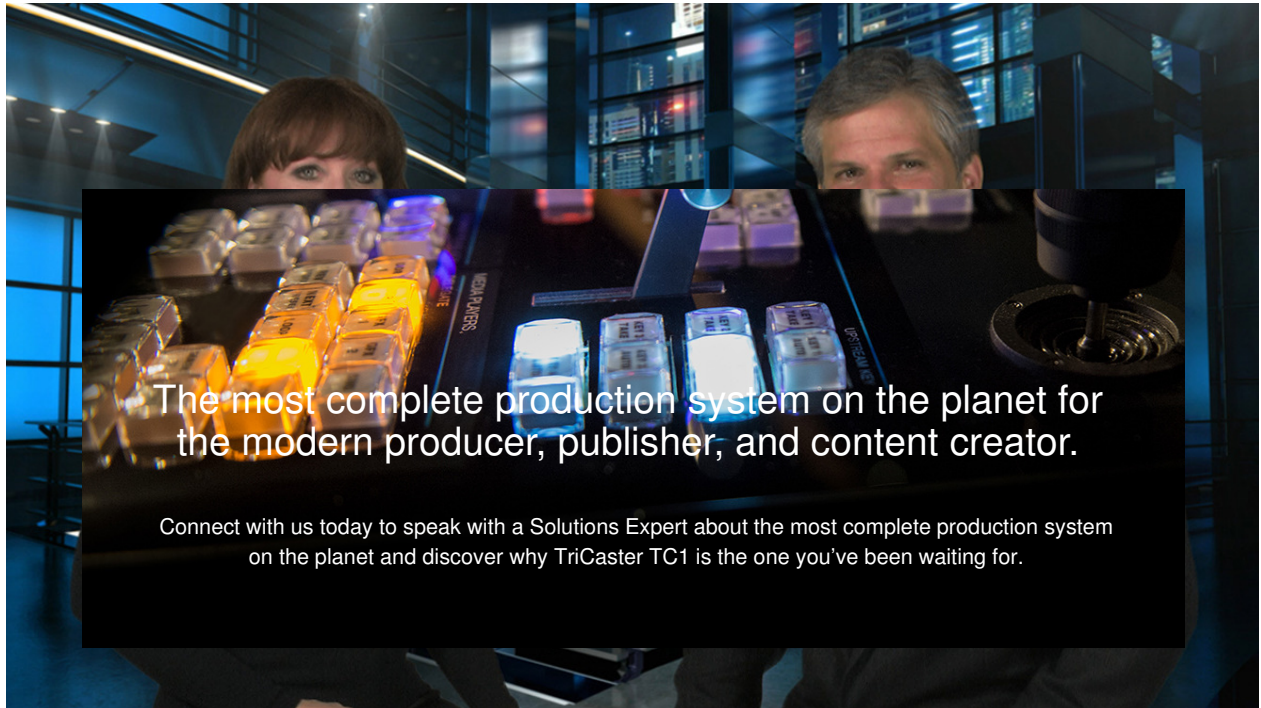


Live Sound Experience

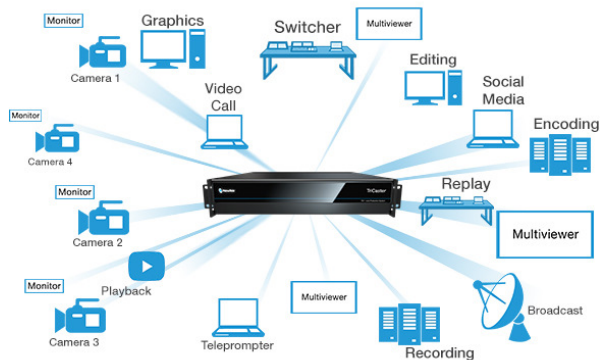
Set the tone for your production with comprehensive audio integration, including a software-based audio mixer, support for digital, analog and network audio, professional DSPs, fader control, VU metering, Talk Back communication, and 4 x 4 x 4 channel routing to four audio mix outputs.

World-Class Live Virtual Sets

Save on studio and set expenses without sacrificing production value. With integrated LiveSet™ technology, TriCaster TC1 can transport your talent into professionally-designed virtual environments, complete with multiple angles, virtual camera movements, real-time reflections, specular highlights, animated lens flares and stunning augmented reality effects that blur the line between virtual and reality. Select from more than 30 included virtual sets, purchase your choice of premium ready-made sets, or create endless custom environments with the optional Virtual Set Editor software (sold separately).



Show Beyond



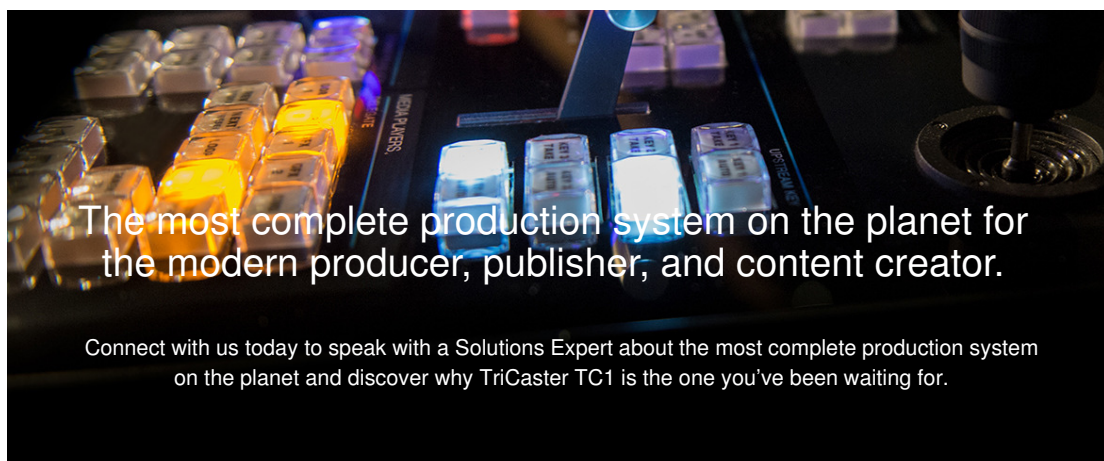
Your Workflow. Interconnected.

You don't work in a silo. Neither should your equipment. With native integration of NDI™, NewTek's innovative Network Device Interface technology, TriCaster TC1 connects to the most prolific IP-based workflow in the industry right out of the box, networking seamlessly with compatible products from hundreds of manufacturers and developers.



Push Your Limits.

Design the multi-source, multi-system, and multi-site productions you've always wanted. When you combine NewTek Connect solutions with TriCaster TC1, you can capitalize on even more opportunities—connecting technologies, linking locations, and introducing additional capabilities to customize your entire workflow to your needs.



SONY



PXW-X70

1.0-inch type CMOS Compact Solid-State Memory Camcorder

This handheld camcorder is a new compact member of the XDCAM® family, delivering the benefits of 1.0-inch type sensor technology and XAVC™ format.

The PXW-X70 is a compact, lightweight XDCAM camcorder with professional features including a high-sensitivity 1.0-inch type CMOS image sensor. It delivers high-resolution recording and superb performance even in low-light conditions and can record in various formats — including HD XAVC Long GOP (for 422 10-bit sampling), AVCHD™, and DV® — to meet particular needs.

The lens features 12x Optical Zoom, which can be increased to 24x with Clear Image Zoom while retaining full resolution. Thanks to the 20-megapixel CMOS sensor and Sony's sophisticated Digital Extender, zoom performance can be further increased to 48x to satisfy the demand of professionals for wide-angle to telephoto shooting in various scenes. The rich feature set includes a four position switchable ND filter, 3G-SDI interface, XLR handle unit, built-in Wi-Fi function, and the future ability to record in 4K Ultra High Definition* which will support at any situation, increasing the creative possibilities.

* A firmware update service (fee required) is planned to be available the first half of 2015.

XDCAM

XAVC

AVCHD
Progressive

Exmor R
CMOS Sensor

WiFi
CERTIFIED

ni Multi
Interface Shoe

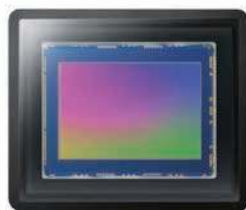


1.0-inch type Exmor R® CMOS Sensor with a Resolution of 20 Megapixels

The Exmor R CMOS sensor with 1.0-inch type picture elements delivers high resolution and minimal noise even when shooting in low-light conditions. The 20-megapixel sensor comfortably supports 4K resolution, and 4K recording will become available in the near future via firmware update*.

* A firmware update service (fee required) is planned to be available the first half of 2015.

Exmor R
CMOS Sensor



Wide Variety of Recording Format Capabilities Including XAVC Long GOP (MXF)

The PXW-X70 provides multiple choices depending on the application required, including XAVC, AVCHD, and DV® file-based recording. When recording in XAVC, the PXW-X70 uses the MXF file format, efficiently compressing full HD (1920 x 1080) resolution using the MPEG-4 AVC/H.264 CODEC. Image sampling is 4:2:2 10-bit with high-efficiency Long GOP compression at 50 Mbps, 35 Mbps, or 25 Mbps. Moreover, the ability to record in AVCHD format, which is widely used already, provides playback compatibility with wide range of consumer electronics equipment. A firmware update in the near future will also enable recording of proxy video files.

XAVC

AVCHD
Progressive

29-mm Wide-angle Carl Zeiss Vario-Sonnar T* Lens with 12x Optical Zoom (Maximum 48x Zoom)

The wide-angle 29-mm ZEISS Vario-Sonnar T* lens ensures stunning quality to the very corners of the image and offers 12x optical zooming that can be increased to 24x via Clear Image Zoom. Magnification can be further increased to 48x by Digital Extender, which takes full advantage of the 20-megapixel high-resolution image sensor. From wide-angle to telephoto shooting, this lens enables various professional-level applications. Moreover, seven shutter blades contribute to impressive background bokeh.



Wi-Fi® and Wireless Functions for Remote Control

A Content Browser Mobile* app enables confirmation of the angle of each shot before shooting, remote monitoring, and remote operation of the camcorder (field angle/white balance/iris, etc.). Near Field Communication (NFC) functions allow easy, one-touch wireless LAN connection to a smartphone or tablet. Streaming and file transfer will become available with a future firmware update.

* The Content Browser Mobile smartphone app can be downloaded from the Google Play Store or Apple App Store.



Four Position (clear, 1/4, 1/16, 1/64) Switchable ND Filter

The camcorder includes an advanced ND filter that facilitates shooting techniques such as the use of a slow shutter and iris adjustment in daylight and other bright conditions, providing fine aperture control with a standard four-position switch from Clear to 1/64 ND.



Compatibility with HDMI® and 3G-SDI Output

Professional interfaces such as a 3G-SDI output terminal allow image signals to be transferred at up to HD1080 60p through a single BNC cable. HDMI output in the native format is possible while transmitting progressive signals without any pull-down. It also offers convenient external recording with embedded timecode and REC trigger.



XLR Handle Unit for Easy Recording and Intuitive Zoom Control

The PXW-X70 includes an XLR handle unit with REC button and zoom lever, as well as two XLR inputs for usage of professional microphones (optional) in addition to the internal microphone. The XLR handle unit can be detached easily, enabling the camcorder to be more compact, for situations that require the smallest and lightest equipment.



Dual media slots, "Simul" or "Relay" recording, and independent recording control

Two media slots allow either simultaneous recording to two memory cards in the "Simul" mode, or "Relay" recording in which recording automatically switches to the second memory card when the first is full. The user can set up the two Start/Stop buttons on the PXW-X70, one on the XLR handle unit and one on the camcorder body, to independently start and stop recording on different memory cards while recording in Simul mode.

3.5-inch* type LCD Panel and 0.39-inch* type OLED Viewfinder

The PXW-X70 features a 3.5-inch type touch panel LCD panel (1.56 million dots, 16:9) that provides easy viewing in a wide range of lighting conditions. Also, the high-resolution 0.39-inch type OLED viewfinder (1.44 million dots, 4:3) will offer crisp and bright view without any color breaking, making precise manual focusing easy.

*Viewable area measured diagonally.



Picture Profile Function for Image Parameter Adjustment

This feature allows adjustment of parameters that define image characteristics such as gamma curve, black level, and color level. Moreover, calibration of multiple cameras and tone control throughout entire recordings are possible. Picture Profile data and other recording settings can be stored on an SD card or a Memory Stick® media card.

Compatible Accessories Attached to the Multi-Interface (MI) Shoe

A Multi-Interface shoe is equipped on PXW-X70. This MI shoe is used to connect the XLR handle unit. When the handle is detached, it can be used as a multi purpose intelligent shoe. For instance, power and audio connections for a UWP-D11 or UWP-D12 wireless microphone receiver are made via this shoe, minimizing the need for extra batteries and additional cabling.



Specifications

	PXW-X70
General	
Weight	Approx. 1 lb 15 oz (900 g) (body) Approx. 3lb 1oz (1400 g) (with lens hood, XLR handle unit, eyecup, NP-FV70 battery)
Dimensions (W x H x D) ^{*1}	4 7/8 x 4 1/8 x 10 7/8 inches (120.7 x 103.5 x 274.3 mm) (With the accessories (lens hood, large eyecup, excluding the grip belt and including the projecting parts) 5 1/4 x 7 1/8 x 11 3/8 inches (130.3 x 180.9 x 287 mm) (With the accessories (lens hood, large eyecup, XLR handle unit), excluding the grip belt and including the projecting parts)
Power Requirements	DC In: 8.4 V, Battery: 6.8 V / 7.2 V
Power Consumption	Approx. 5.5 W (while recording with viewfinder and XAVC HD 1080/60i, 50Mbps) Approx. 5.8 W (while recording with LCD and XAVC HD 1080/60i, 50Mbps)
Operating Temperature	32°F to 104°F (0°C to 40°C)
Storage Temperature	-4°F to +140°F (-20°C to +60°C)
Battery Operating Time	Approx. 120 min. with NP-FV70 battery (while recording with LCD, XAVC 1080/60i, 50Mbps) Approx. 200 min. with NP-FV70 battery (while playing with LCD, XAVC 1080/60i, 50Mbps)
Recording Format (Video)	XAVC HD : MPEG-4 AVC/H.264 4:2:2 Long profile AVCHD : MPEG-4 AVC/H.264 AVCHD 2.0 format compatible DV
Recording Format (Audio)	XAVC HD : Linear PCM 2ch, 24 bit, 48 kHz AVCHD : Linear PCM 2ch, 16 bit, 48 kHz / Dolby Digital 2ch, 16 bit, 48 kHz DV : Linear PCM 2ch, 16 bit, 48 kHz
Recording Frame Rate	XAVC HD (1920 x 1080)@59.94p, 50p, 50Mbps/35Mbps XAVC HD (1920 x 1080)@59.94i, 50i, 50Mbps/35Mbps/25Mbps XAVC HD (1920 x 1080)@29.97p, 25p, 23.98p, 50Mbps/35Mbps XAVC HD (1280 x 720)@59.94p, 50p, 50Mbps AVCHD (1920 x 1080)@59.94p, 50p, PS mode (28Mbps) AVCHD (1920 x 1080)@59.94i/50i/29.97p/25p/23.98p, FX mode (24Mbps), FH mode (17Mbps) AVCHD (1280 x 720)@59.94p, 50p, FX mode (24Mbps), FH mode (17Mbps), HQ mode (9Mbps) DV (720 x 480) @59.94i, 25Mbps DV (720 x 576) @50i, 25Mbps
Recording/Playback Time	XAVC HD@LPCM 2ch 50Mbps Approx. 120 min with 64 GB memory card XAVC HD@LPCM 2ch 35Mbps Approx. 170 min with 64 GB memory card XAVC HD@LPCM 2ch 25Mbps Approx. 220 min with 64 GB memory card AVCHD@LPCM 2ch PS Mode Approx. 290 min with 64 GB memory card Approx. 145 min with 32 GB memory card AVCHD@LPCM 2ch FX Mode Approx. 340 min with 64 GB memory card Approx. 170 min with 32 GB memory card AVCHD@LPCM 2ch FH Mode Approx. 450 min with 64 GB memory card Approx. 225 min with 32 GB memory card DV Approx. 280 min with 64 GB memory card Approx. 140 min with 32 GB memory card
Lens	
Lens Mount	Fixed
Zoom Ratio	12x (optical), servo

	PXW-X70
Focal Length	f=9.3 - 111.6 mm equivalent to f=29.0 - 348.0 mm on 35 mm lens (16:9) equivalent to f=35.5 - 426.0 mm on 35 mm lens (4:3)
Iris	F2.8 - F4.5 auto/manual selectable
Focus	AF/MF selectable, 10 mm to ∞ (Wide), 1000 mm to ∞ (Tele)
Image Stabilizer	ON/OFF selectable, shift lens
Filter Diameter	M62 mm
Camera Section	
Imaging Device (Type)	1.0-inch type (13.2 mm x 8.8 mm) back-illuminated Exmor R CMOS sensor
Effective Picture Elements	Approx. 14.2M pixels (16.9)/Approx. 10.6M pixels (4:3)
Built-in Optical Filters	OFF: Clear, 1: 1/4ND, 2: 1/16ND, 3: 1/64ND
Minimum Illumination	[60i] ^{*2} 3lux (1/60 Shutter Speed, iris/gain AUTO) [50i] ^{*3} 3lux (1/50 Shutter Speed, iris/gain AUTO) [60i] ^{*2} 1.7lux (1/30 Shutter Speed, iris/gain AUTO) [50i] ^{*3} 1.7lux (1/25 Shutter Speed, iris/gain AUTO)
Shutter Speed	[60i] ^{*2} 1/8 - 1/10,000 (1/6 - 1/10,000 when shooting with 24p) [50i] ^{*3} 1/6 - 1/10,000
Slow & Quick Motion Function	[60i] ^{*2} : 1080p: Frame rate selectable 1.2, 4.8, 15.30, 60 fps [50i] ^{*3} : 1080p: Frame rate selectable 1.2, 3.6, 12.25, 50 fps
White Balance	Preset (Indoor: 3200K, Outdoor: 5600K±7 steps, Color temperature set range: 2300-15000K) One-push A, 8, Auto selectable
Gain	-3, 0, 3, 6, 9, 12.15, 18, 21, 24, 27, 30, 33 dB, AGC
Gamma Curve	Selectable
Input/Output	
Audio Input	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectable
Video Output	Integrated into Multi/Micro USB jack (x1), Composite 1.0Vp-p, 75Ω
Audio Output	Integrated into Multi/Micro USB jack
SDI Output	BNC (x1), 3G/HD/SD SMPTE 424M/292M/259M standards
USB	Multi/Micro USB jack (x1)
Headphone Output	Stereo mini jack (x1)
Speaker Output	Monaural
DC Input	DC jack
Remote	Integrated into Multi/Micro USB jack
HDMI Output	Type A (x1)
Monitoring	
Viewfinder	1.0 cm (0.39 type) OLED Approx. 1.44M dots
LCD	8.8 cm (3.5 type) Approx. 1.56M dots.
Built-in Microphone	
Built-in Microphone	Omni-directional stereo electret condenser microphone.
Media	
Type	Memory Stick Pro Duo™ and SD/SDHC/SDXC compatible x1, SD/SDHC/SDXC x1
Wi-Fi/NFC	
Supported format	IEEE 802.11 b/g/n
Frequency band	2.4 GHz bandwidth
Security	WEP/WPA-PSK/WPA2-PSK
NFC	NFC Forum Type 3 Tag compliant
Supplied Accessories	
XLR handle unit (1), Lens hood (1), Lens cap (1), Large eyecup (1), Accessory shoe kit (1), USB cable (1), Rechargeable battery pack (NP-FV70) (1), AC Adaptor (AC-L200D) (1), Power cord (mains lead) (1), Wireless Remote Commander (RMT-845) (1), Lithium battery (CR2025 for the Wireless Remote Commander) (1), Pre-installed to the Wireless Remote Commander, Operating Guide (2), CD-ROM "Manuals for Solid-State Memory Camcorder" (1), Warranty (1)	

*1 The values for dimensions are approximate.

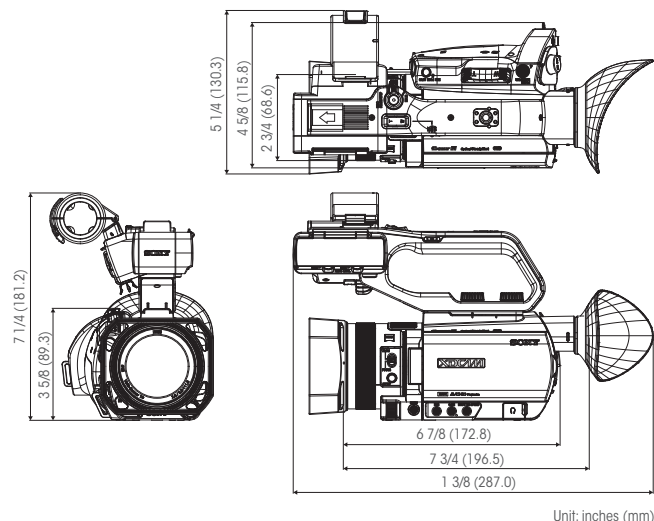
*2 [60i] : when [60i/50i SEL] is set to 60i

*3 [50i] : when [60i/50i SEL] is set to 50i

Available Accessories

						
NP-FV70 (6.8 V / 14.0 Wh / 2060 mAh) NP-FV100 (6.8 V / 26.5 Wh / 3900 mAh) Rechargeable Battery Pack	AC-VQV10 (AC 100 V ~ 240 V) AC Adaptor/Charger	UWP-D11/UWP-D12 Wireless Microphone Package	SMAD-P3 MI Shoe Mount Adaptor * required for cable-free operation with UWP-D11/UWP-D12	ECM-VG1 Electret Condenser Microphone	ECM-MS2 Electret Condenser Microphone	ECM-673 Electret Condenser Microphone
						
SF-128UX/TQN (128 GB, 64 GB) SDXC, UHS-1 U3 Memory Card	SF-64UX/TQN (64 GB) SDXC, UHS-1 U3 Memory Card	MS-HX32B (32 GB, 16 GB, 8 GB) Memory Stick PRO-HG Duo™	RM-VPR1 Remote Commander® Unit	VMC-15MR2 AV Cable	ECM-W1M MI Shoe Wireless Microphone *5.1ch MIX mode is not available	ECM-W1M MI Shoe Wireless Microphone *5.1ch MIX mode is not available

Dimensions



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V-2610 (MK11164V1)

Printed in USA (9/14)

Mirror Image LC-150MP Starter Series LCD Prompter with EZPrompt Software

MIRROR IMAGE
TELEVISION & FILM



Product Highlights

- 15" SVGA LCD Color Monitor
- 1024 x 768 Resolution
- 250 cd/m² Brightness
- 16.5 x 15" Trapezoidal Glass Mirror
- Adjustable Camera Mount
- For Indoor/Outdoor Use
- Includes EZPrompt Software



Manfrotto MVH502A Fluid Head and 546B Tripod System with Carrying Bag



Product Highlights

- 15.4 lb Load Capacity
 - Counterbalance Supports 8.8 lb
 - Two-Stage Aluminum Legs
 - 17.3" to 66.1" Height Range
 - Mid-Level Spreader
 - Spiked Feet with Rubber Overshoes
 - Tripod Carrying Bag Included
-

Manfrotto 114 Heavy-Duty Cine/Video Dolly for Tripods with Round Feet



Product Highlights

- For Large Tripods with Round Feet
 - 132 lb Load Capacity
 - Cable Guards and Brakes
 - Folds for Transport
-

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MAXView consoles are uniquely designed for the following applications:

Broadcast, Post-Production, Security Monitoring, Command Control Centers, 911 Call Centers



Standard Finishes

STANDARD FEATURES

Countertop depth 24" / Overall depth 41"

Texture Coat counter edge for maximum durability and comfort

Triple extruded rail for unlimited linear positioning of accessory items

Base storage - 12RU with front and rear rails

Front base door on institutional quality hinges with oversized vented panel

Open access throughout base for better ventilation and cable access

Completely modular, easy to assemble, able to be shipped domestically or internationally

MAXRail Accessory Items

Monitor Arms – Single or Double (silver / black)

Single Rack Turrets – 4ru, 6ru, 9ru standard

Double Rack Turrets – 4 + 6ru, 4 + 9ru standard

Speaker Arms – Adjustable with platform

Flat panel monitor frame (for up to 50" TV)

Countertop Wedge Options

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Camera Control Units -- Lighting Boards

Rack Mount (1RU up to 13RU)

Broadcast Studio Set

Designed for Schools



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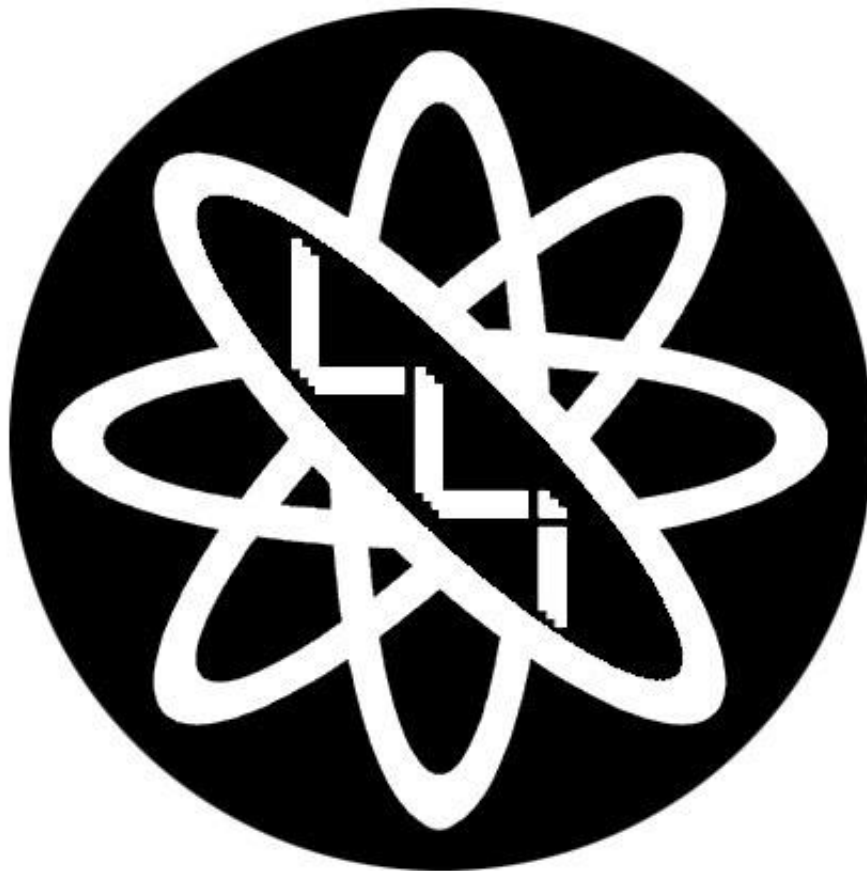
Learning Labs TV Broadcasting Studio Set

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- Meets Capital Equipment requirements
- Comes in 12', 14' and 16' widths
- Custom heights...standard is 9'
- Pre-wired for standard 120VAC electrical
- Recessed directional lighting in backdrop
- Accent lighting on studio anchor desk
- Quality construction
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