



The Revolutionary Interactive Visualiser  
(Document camera)

**L-12 HD**



# The Essential Teaching tool for Interactive Classwork! Clearer, more beautiful . . .

## Easily connect to Interactive Whiteboard

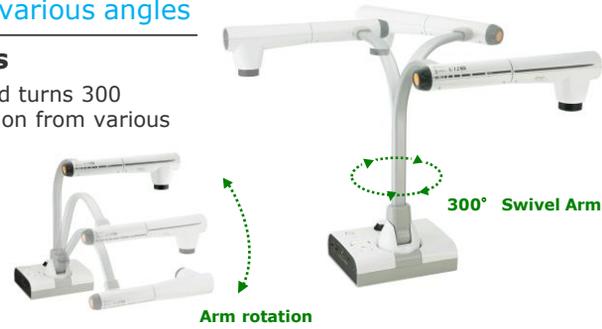
### USB Video Class Compliant

By simply connecting to a computer via USB, L-12iD functions as a USB camera. As no dedicated software is required, the connection with external devices, such as an Interactive Whiteboard, has improved the broad utility.

## View material from various angles

### 300° Swivel arms

The rotating camera head turns 300 degrees allowing projection from various angles.



## Magnify with clarity

With the adoption of 12times optical zoom, L-12iD projects a small detail larger and clearer. This means L-12iD can achieve maximum 96times magnification when combines with 8 times digital zoom. L-12iD not only magnifies small things but also clearly displays objects far away.

Optical Zoom  
12X

Digital Zoom  
8X

Total 96X



## With a shooting area of A3 full size, various teaching materials can be displayed at once.

Maximum shooting area of 334mm x 420mm (at SXGA )

## Excellent color reproduction

It tells correct color information to those children sensitively respond the information received from eyes. Accurate color reproduction during lesson is more visually engaging for children.



## Full High Definition images (1080p)

### 3.4M pixels CMOS sensor

Built-in high pixel sensor enables high definition output for small print and 3D objects

## Connect with only one cable to a projector

### Equipped with High definition output and HDMI terminal

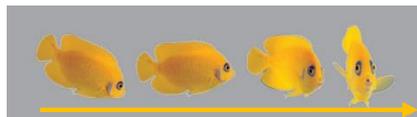
With just one cable you can send High-definition images and audio to a projector or a monitor.



## Reduces smooth motion

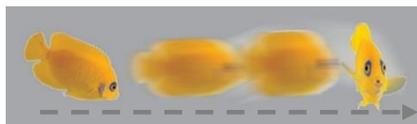
### Full-motion video (30frames/sec.)

At 30frames/second, even moving objects are reproduced smoothly without any residual image or lag. L-12iD doesn't reduce the frame rate even in a dark classroom. Noise reduction function enables clear, distortion-free images.



L-12iD

30  
fps



15  
fps

## Easy control at your fingertips

### Zoom dial and one push AF button (Auto focus with one push)

Just turn the zoom knob to zoom in and out. Make intricate adjustment to the zoom knob with getting in the way of the shooting area. Improved zoom knob movement is even smoother !



## Record classwork

### Save in SD card and USB flash drive

Record video files with audio data of class content to an SD card or USB flash drive. This useful function is ideal for lesson review or tracking class progress and records.



## Sound input/output

### Built-in microphone and external audio input

With L-12iD audio enhancement can be added to classroom presentations via the built-in microphone or an external microphone input (Mic in/Line in). Audio output can be routed to the external HDMI or audio Line output.



## Anti-slip

With improved non-slip rubber grip to hold L-12iD

## Supplied software "Image Mate"

With supplied software installed into PC, you can view live image of L-12iD and enjoy various features such as drawing feature, interval recording.

## Easily project microscope images

### Microscope attachment lens (Option)

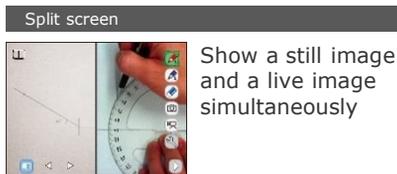
Simply attach the microscope attachment lens (option) to a microscope and L-12iD to view live microscopic images (e.g., slide specimens) enlarged on a screen or monitor.



## Control from anywhere in the classroom

### Presentation Support Function

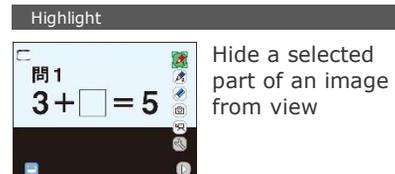
The provided remote control brings convenient interactive functions to classroom presentations !



Show a still image and a live image simultaneously



Draw attention to a particular section of an image



Hide a selected part of an image from view

# L-12iD Specifications

Camera	Image pick-up device	1/2.8" CMOS 3,400,000 pixels
	Total pixels	2,144(H) x 1,588(V)
	Effective pixels	1,920(H) x 1,536(V)
	Frame rate	30fps
Optics	Resolution	Analogue RGB :800(H) x 800(V)TV lines or more
	Zoom	Powered, 12 x optical
	Lens	F3.2-3.6, f=4.0mm-48.0mm
	Shooting area	1080p : Max.420 x 233mm Min.48.5 x 27.5mm 720p : Max.420 x 233mm Min.48.5 x 27.5mm SXGA : Max.420 x 334mm Min.48.5 x 38.5mm WXGA : Max.420 x 259mm Min.48.5 x 30.5mm XGA : Max.420 x 313mm Min.48.5 x 36.5mm
Functions	Focus	Auto/Manual/Zoom Sync
	White balance	Auto/One-Push/Manual
	Image mode	Text1/Text2/Text3/Graphics1/Graphics2
	Edge enhancement	Provided (only for graphics mode)
	Pause	Provided
	Still image storage	Provided
	Movie storage	Provided
	USB image output	Provided (Elmo original), UVC(USB Video Class)
	Digital zoom	8 x
	Gamma setting	Provided (only for graphics mode)
	Graphical OSD (on-screen display)	Provided
	Image save	SD memory card/SDHC memory card/USB flash drive
	State presetting	Up to 3 user settings
	Annotation	Provided(CRA-1 use , CRB-1 use)
	Brightness control	Auto(with level adjustment)/Manual
	Support Functions	Highlight, Mask, Scroll(in digital zoom), Mosaic  Split screen, PinP(Picture-in-Picture) Color filter, Microscope, Image rotation(0° /180° )  Positive/negative conversion, Color/B&W selection

Interface	Input selection	Main/External(RGB x 1,HDMI x 1)
	Output terminals	RGB output mini D-sub 15-pin connector, female x1 HDMI output terminal x1 Line Out terminal 3.5mm-diameter stereo minijack x1
	Input terminals	RGB input mini D-sub 15-pin connector, female x1 HDMI input terminal x1 Mic In/Line Out terminal (shared) 3.5mm-diameter stereo mini jack x1
	Ext. control terminal	USB device (2.0 compliant) Mini-B receptacle x1
	Analogue RGB output	1080p : 1,920x1,080@60Hz, 720p : 1,280x720@60Hz SXGA:1,280x1,024@60Hz, WXGA:1,280x800@60Hz XGA:1,024x768@60Hz
	HDMI output	Image output : 1080p/720p Audio output : PCM44.1kHz sampling frequency
	Memory interface	SD memory card slot x1 USB host(2.0 compliant) Type A receptacle x1
	Lighting	Illumination lamp White LED
Others	Supplied accessories	AC adapter, AC cord, USB cable(for connecting to PC) Button batteries ( CR2025 ) for remote control Image Mate installation manual, Instruction manual(CD-ROM) Image Mate CD-ROM, Basic startup guide Remote control (card type)
	Optional accessories	Stage, Dust cover, VGA cable, Anti-glare sheet
	Security slot	Provided
	Power source	12V DC(AC adapter AC100-240V)
	Power consumption	16.2W(AC adapter included)
	Dimensions (W x D x H)	355x373.5x426.5mm setup 195x294x469mm folded
	Weight	Approx. 3.0kg (main unit only)

Specifications are subject to change without notice



Just insert USB receiver for CRA-1/CRB-1 directly into L-12iD



## Annotation on Live images

Combined L-12iD with Elmo Wireless Pen Tablet or Elmo Interactive Pen and you can annotate over live images, as well as saved ones. You can also record and play back videos, and you don't need a computer to make it work!

\*All of information on the brochure is as of February 2015

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