E – Swivel head

In addition to the joints of the stand, you can further customize your image by swiveling the camera. 270° of swivel is possible – 180° clockwise and 90° counterclockwise. *See Pages 17 and 18 for more on orientation.*

F – EXP +/- (Exposure Value)

This toggle allows you to increase or decrease artificial exposure of the image, making it brighter (+) or darker (-). *See Pages 19 and 20 for more on exposure.*

G – Autofocus (AF) switch

Set your focus to one of two modes. Continuous (C) causes Ziggi-HD to constantly determine the best focus for your image. Single (S) causes Ziggi-HD to stay at a single focus. *See Page 21 for more on focus.*

H – Focus button

In Single focus mode, press this button for sharp focus of your subject. It takes a few seconds for Ziggi-HD to determine and set proper focus.

I – LED

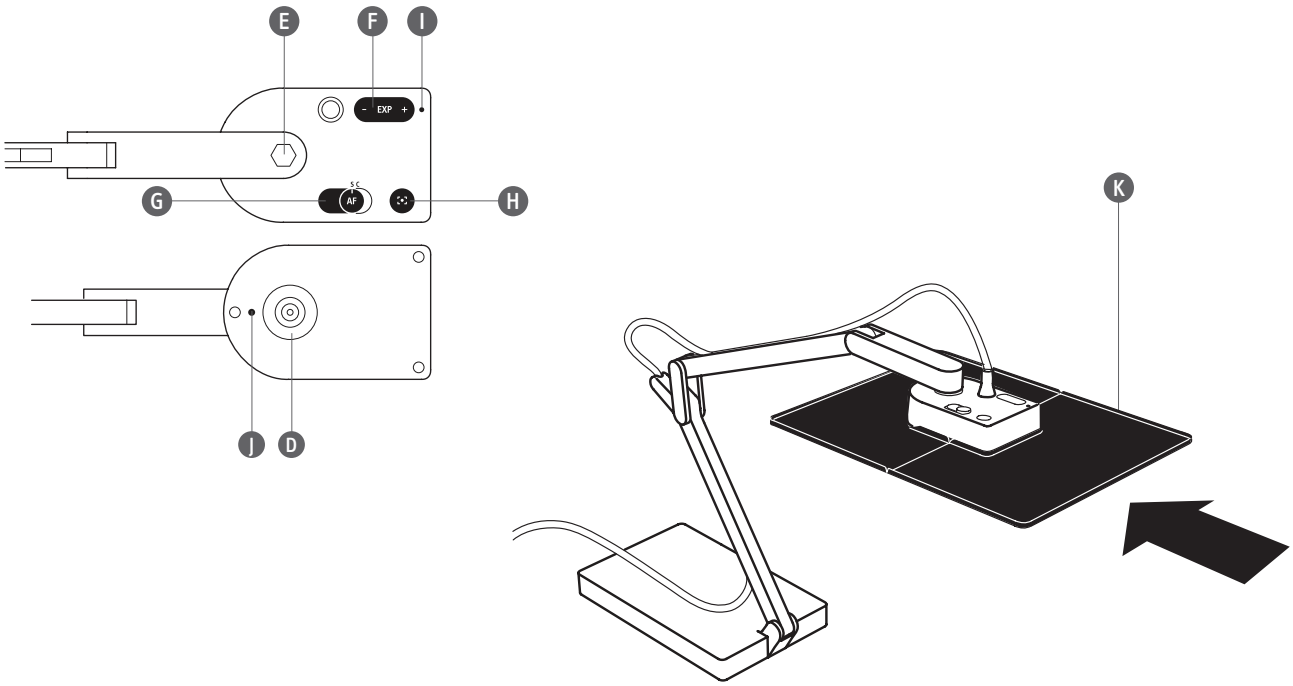
The LED gives you an easy way to know whether Ziggi-HD is operating: white for operating, off for not. When you start the Ziggi-HD software, the LED will light up. The LED has been positioned on the top of the camera so it will not reflect on any digital screens you might be capturing.

J – Microphone

Ziggi-HD features a built-in microphone which can be used to capture your voice for video conferencing sessions and other applications. There is no on/off switch for the microphone – it is simply active and on when your Ziggi-HD is on.

K – Anti-Glare Shield

If you are experiencing glare in your video capture, consider mounting the Anti-Glare Shield onto the camera. *See Page 31 for more on the Anti-Glare Shield.*



The Ziggi-HD software

Specially-designed IPEVO Presenter software is included on your CD-ROM and provides a rich suite of features to maximize your Ziggi-HD use.

Ziggi-HD operates in one of four modes:

- **Camera mode –** This is the default mode upon software startup. This mode shows the current video capture coming from the Ziggi-HD camera. In this mode, you are also able to change aspects of the image such as exposure, mirroring, and resolution. *Page 14~23* to get started with capturing your image.
- **Review mode –** This mode gives you an easy way to review snapshots taken with your Ziggi-HD. Snapshots are presented as thumbnail images in a row at the bottom of the screen. *See Page 13* for more on taking snapshots.
- **Full Screen mode –** In this mode, the image fills up the entire computer screen. Full screen is particularly useful when you need to project the Ziggi-HD's video for presentations. *See Page 24 and 25 for more on projecting your image.*

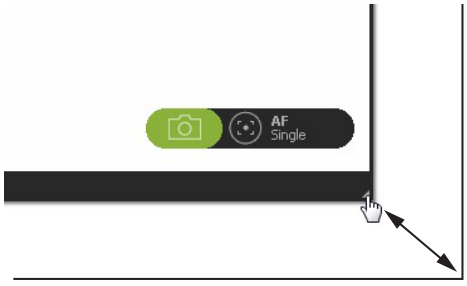
To switch between modes, click on the Mode Tab on the left-hand side of the capture window.

Camera mode

Review mode

Full Screen mode

The size of the window for Camera, Review modes can be changed by clicking and dragging on the edges of the window.



Basics of the Presenter Software

Please review the basic elements of the four modes of the Presenter software:

A – Mode Tab

One of four modes can be selected by clicking on the appropriate button in the Mode Tab.

B – Camera Menu Tab

Several camera functions can be changed using the pulldown menus. These include: Zoom, Timer, Mirroring Mode, Resolution, and Exposure. This tab will also communicate the current settings of these functions.

C – Snapshot Button

Click the green camera icon to take a snapshot. *See Page 23* for more on taking snapshots.

D – Focus Button

Click the rectangular crosshairs icon to focus the image. To the right of this icon, the software will tell you whether you are in Single or Continuous focus mode.

E – Operations (Windows only)

Here, you can access Advanced Settings (the Wrench icon), get Help (the Question Mark icon), minimize the capture window, or exit the capture window.

F – ESC Button

In Full Screen mode, hit “Esc” or click the ESC Button to exit Full Screen mode and return to Camera mode.

Camera mode

Full Screen mode

To review snapshots you've taken, enter Review mode by clicking on the “review” tab on the left-hand side of the software.

A – Image Pane

This shows the currently selected snapshot.

B – Menu

This gives you some basic tools to manipulate the selected snapshot.

Zoom – Digitally zoom the image from 100% (normal, or 1x zoom) to 600% (or 6x) zoom in 100% increments.

Rotate – Rotate the image left or right.

Delete – Delete the selected image from your hard drive. The system will prompt you to ensure you want to delete the image.

C – Folder Icon

Clicking on the folder icon will take you to the location on your computer where your snapshots are stored.

D – Image Information

Provides information about the image, including file name, date taken, resolution taken at, and file size (in kilobytes).

E – Thumbnail Timeline

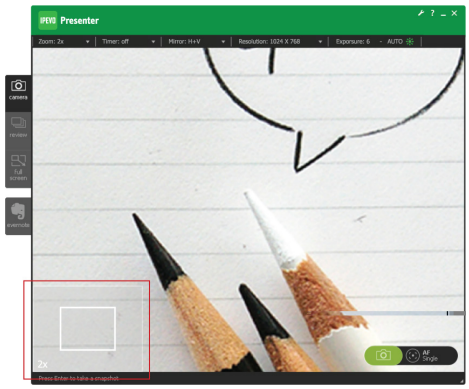
The snapshots you've taken are presented in a horizontal timeline of thumbnails. You can click on a thumbnail to select that snapshot, or you can use the arrow buttons to cycle through the snapshots. By right-clicking on a thumbnail, you can choose to Copy or Delete that snapshot, or open the folder it is contained in.

Review mode

- **Zoom –** In the Camera mode of the Presenter software, the Zoom tab allows you to digitally "zoom in" to your subject to make it appear bigger, anywhere from 1x (default, or no zoom) to 6x (or 6 times normal) in whole number increments.

- **Zoom Box –** When zoomed in, a gray box appears in the lower-left of the capture window with a smaller box inside it. The large box represents the original field of vision (the 1x zoom), while the smaller box represents the zoomed-in area you are currently viewing. You can click and drag the smaller box to selectively zoom to different portions within the original field of vision.

Note: Focusing while zoomed in will focus according to the center of the original full image, and not the partial zoomed-in area.



- **Capturing a Standard Sheet of Paper -** At full extension, Ziggi-HD is designed to be high enough to capture an entire standard (A4) sheet of paper. However, you might elect to bring the camera closer to capture details from a particular document. Note that while the Ziggi-HD has ample resolution to capture larger A3-sized paper, Ziggi-HD would need to be placed on something (such as a stack of books) to make the camera high enough to completely capture an A3 document.

Exposure

Exposure refers to the amount of light allowed to hit the photographic medium—in this case, the sensor of the camera lens. In most circumstances, you will require a medium exposure allowing for the maximum amount of detail.

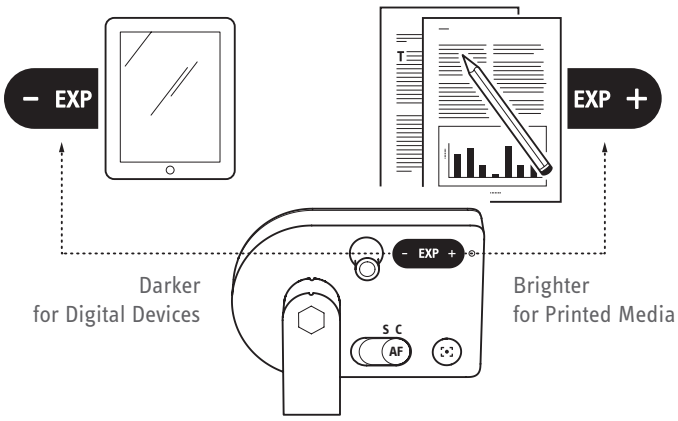
Consider the following methods to achieve optimal exposure for your image:

- **Change the exposure in the room :** This could include using a desk lamp near the Ziggi-HD to shine additional light on the subject, turning on room lights, opening or closing curtains, etc.

- **Change the EXP (Exposure Value) :** Ziggi-HD is able to artificially alter exposure on a fifteen-point scale, with 1 being the lowest (darkest) exposure value, and 15 being the highest (brightest) exposure value. 8 is the default value. If your image is too dark, consider increasing the EXP. Or, if your image is too bright, decrease the EXP. The EXP may be changed on either the camera body itself or via the software.

  Camera body: Use the EXP +/- toggle for on-the-fly exposure adjustments. The software will briefly indicate the change with an EXP number at the bottom of the image capture window, and your exposure will instantly change.

  Software: Click on the Exposure tab. You may either click on areas within the grayscale bar to change EXP, or drag the pointer to a value. Hitting “Default” will bring the exposure back to the default value of 8.



- **Use Auto Exposure:** As the name implies, auto exposure automatically changes exposure in order to maintain a medium, optimum exposure in which the maximum amount of details are shown. If lighting conditions in the room or on the subject are changing, or if the subject emits its own varying amount of light (as with an LCD screen), you might consider auto exposure.
  Automatic exposure adjustment depends upon two things: the EXP (Exposure Value, from 1 to 15), and the actual brightness/darkness of the subject.

  Exposure Value – Auto exposure with an EXP setting of 10 will always be brighter than auto exposure with an EXP setting of 8, for one example.

  Actual brightness/darkness – Auto exposure will react to changes in actual brightness/darkness. With auto exposure on, if you are capturing a bright iPad screen and it dims, the Ziggi-HD will adjust exposure to brighten the image. If the screen brightens again, Ziggi-HD will adjust exposure to darken the image.

- **To Turn on Auto Exposure:** Click the Auto tab in the Presenter software, and select "On." The sun icon next to Auto will turn green. Ziggi-HD will now constantly determine the optimal exposure for your image, and may adjust exposure at any time.

Note: Auto exposure should be turned to "Off" for stop-motion animation projects, which rely upon uniform, consistent exposure.

Focus

Focus refers to the convergence of light in your image. If your subject is “in focus,” light is properly converged at the right point. If your subject is “out of focus,” light has not properly converged at the right point. In most circumstances, you want your image to be sharp and in focus.

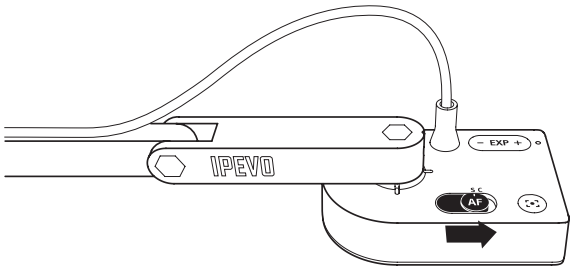
Ziggi-HD gives you a few tools to achieve proper focus, including the ability to automate focus for convenience.

- **Focus modes:** Ziggi-HD can be set to one of two focus modes using the Autofocus (AF) switch on the camera body. The software will indicate which focus mode you are in with either “Single” or “Continuous” under “AF” in the lower right-hand corner of the screen.

  Continuous (C) mode: In Continuous mode, Ziggi-HD will constantly determine the best focus for your image and change its focal length accordingly. This is ideal for “set it and forget it” convenience, and also if the distance between the camera and the subject will be changing. For example, if you are showing the parts of a phone and are flipping the phone around in a hands-on demonstration, setting the Ziggi-HD in Continuous mode will ensure your image is always in sharp focus.

  Single (S) mode: In Single mode, Ziggi-HD will stay at a single focal length, and will not try to constantly adjust itself. This mode is ideal for manual control of focus. If you are capturing a text document laid on the table which is not moving, single mode will be sufficient for sharp focus. This mode is also best for the highest resolutions when frame rate drops significantly. *See Page 21.*

- **Focus button:** While the focus button is best for Single mode manual focus control, it will also work in Continuous mode. There are two focus buttons: the physical button on the camera body, and the four-cornered “crosshair” icon in the lower right-hand corner of the software. In either case, Ziggi-HD will find the optimum focus.



Focusing

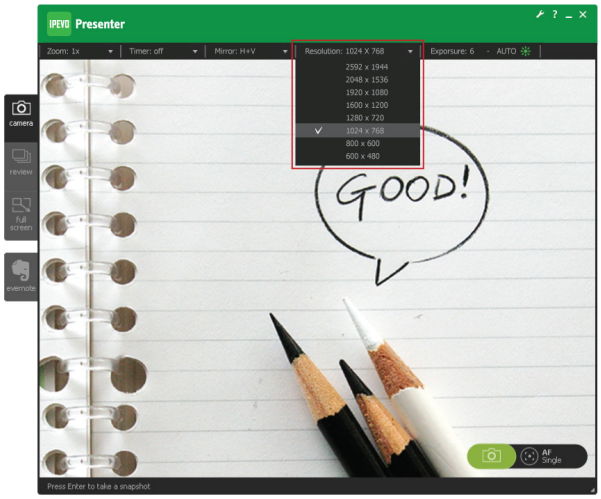
When focusing, four corners of a red box will appear in the center of the screen and a beep will sound, letting you know Ziggi-HD is attempting to focus. The image may appear to slightly zoom in and out. When Ziggi-HD is done focusing, the red corners will change to green corners, and there will be two quick beeps. For disabling the beep sound effects, *see Page 26, Advanced Settings.*

Resolution

Resolution describes the amount of detail (information) an image holds. High resolutions relay more information (and therefore more detail), and also consume more computing power. Low resolutions communicate less detail but are also less demanding of computer resources. Resolution is measured in pixels, the smallest part of a picture element. Ziggi-HD is capable of several high-definition resolutions.

Changing Resolution

To change resolution, click on the Resolution tab in Camera mode. There are nine different resolutions to choose from, ranging from 2592 x 1944 pixels (the highest resolution) to 640 x 480 pixels (the lowest resolution). As 1280 x 720 resolution (and above) is commonly accepted to be “high-definition” (HD), the top five resolutions are HD resolutions, while the four lower resolutions are standard-definition (SD) resolutions.



Resolution and Frame Rate

Generally, as resolution increases, frame rate decreases. Frame rate is a measure of how many distinct images are captured in a single second to make up the full-motion video perceived.

Because the top three resolutions contain an extraordinary amount of information, frame rate will significantly drop with these resolutions. You may experience a “stuttering,” “blurring,” or “strobing” of moving subjects, such as with a hands-on demonstration. As such, the top three resolutions are best reserved for static objects (such as a stationary piece of paper or LCD screen).

If you find the amount of strobing to be unacceptable on your current resolution, consider lowering the resolution, which will increase frame rate and reduce or eliminate strobing.

Note: For the higher resolutions, Single Focus mode (rather than Continuous) is highly recommended.Note on Highest Resolutions: See Page 8 for minimum system requirements for the two highest resolutions.

Snapshots

Ziggi-HD has the ability to take snapshots, still images extracted from the current video capture. Ziggi-HD saves these snapshots, in .jpg format onto your computer's hard drive.

Taking a snapshot is simple, and can be done in one of two ways:

1. Hit the “Enter” (Windows) or “Return” (Macintosh) key while using the Presenter software in Camera mode.
2. Click the green camera icon in the lower right-hand corner of Camera mode.

Taking a Snapshot

Once you take a snapshot, the screen will briefly go black, accompanied by a classic shutter sound effect, and then your snapshot will appear on screen in an Instant Preview. After another brief period of black, the video capture function will resume. For changing or disabling Instant Preview, and for disabling the shutter sound effect, *see Page 26, Advanced Settings.*

Using the Timer Function

The Timer provides a delay (in seconds) between the time you press the Snapshot button and the time when Ziggi-HD actually takes the snapshot. You might find this delay necessary to avoid any shake in the camera body that could result in a blurry image. Using the Timer eliminates this possibility.

When using the timer, a countdown will appear on screen, with beeps for each second.

The Timer, located in the Camera mode tab, can be set to either 3 seconds or 10 seconds. By default, the Timer is set to Off.

To review snapshots, enter Review mode. *See Page 13.*

Using Ziggi-HD in Other Ways

While Ziggi-HD is designed as a document camera, it can also be used as a web camera/conferencing camera with Skype and many other applications. Ziggi-HD's top section can be rotated up, such that the camera is pointing horizontally rather than down.

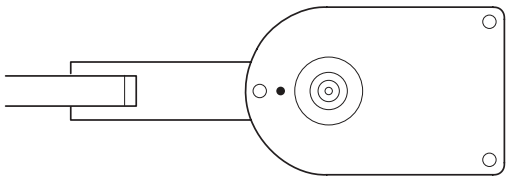
You may need to exit the Presenter software prior to using Ziggi-HD in other applications. Other applications have varying methods for how they detect and utilize cameras and microphones. Please refer to the Help documentation for these applications for specific instructions.

When using Ziggi-HD for video conferencing, ensure the Autofocus switch is set to Continuous mode. This ensures constant sharp focus.

Microphone

Ziggi-HD features a built-in microphone located on the underside of the camera body next to the lens. This microphone can capture your voice for use with Skype and other programs. The mic is always active when Ziggi-HD is on.

The best effective range for the microphone is 1 meter or 3.28 feet.



Note: we cannot guarantee that all the functions of Ziggi-HD, including exposure, focus, and the built-in microphone, will work predictably in other applications, and IPEVO cannot offer troubleshooting for applications outside the Presenter software.