

INSTALLATION GUIDE

uEYE

For Swing Catalyst Studio Installations



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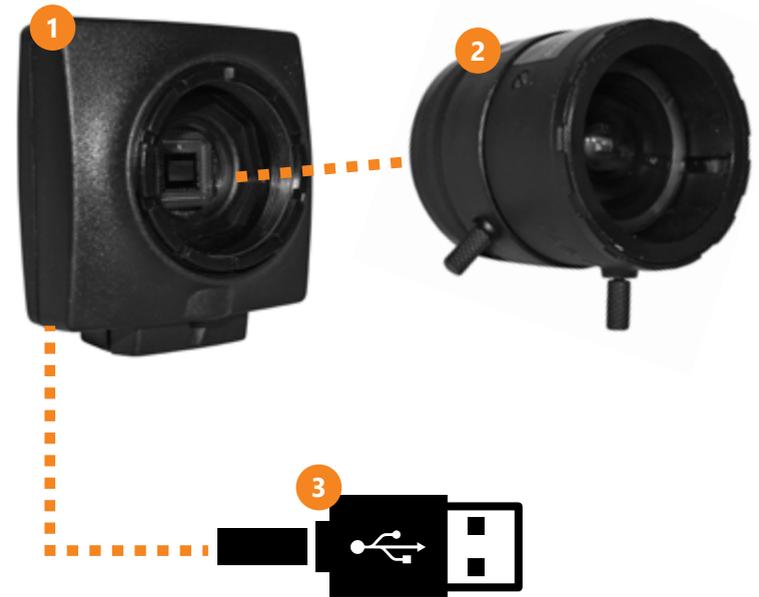
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INSTALL DRIVERS



- 1 Before you can use your USB camera you need to install the camera drivers. Download the required drivers from:
downloads.swingcatalyst.com/drivers.html
- 2 When you have downloaded the drivers (32- or 64 bit depending on your windows version), run the file and follow the on-screen instructions.

CAMERA COMPONENTS



The uEye USB camera consist of three separate components:

- 1 Camera*
- 2 Lens
- 3 USB Cable

* The camera itself has no physical adjustments, all settings are controlled by the software.

CAMERA LENS



The provided lens has 3 rings for adjustments,

- 1 Zoom
- 2 Iris
- 3 Focus

ZOOM AND FOCUS



On a varifocal (zoom) lens the Zoom and Focus rings work together, so it may help to tweak both adjustment rings for good focus/zoom.

IRIS



More light.
Smaller depth of field.



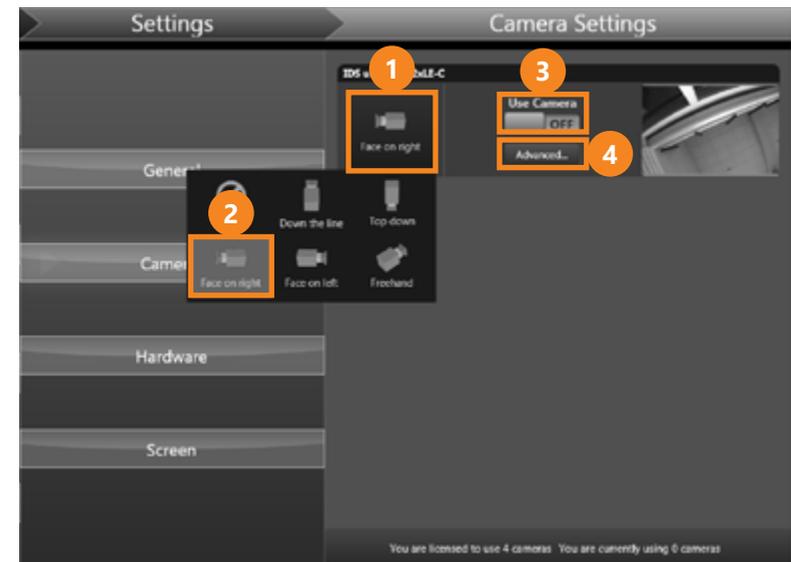
Less light. Larger
depth of field.

The Iris adjustment ring determines the amount of light let onto the film (the "opening").

Closing the iris will result in a darker image but will help give better focus by increasing the focus depth.

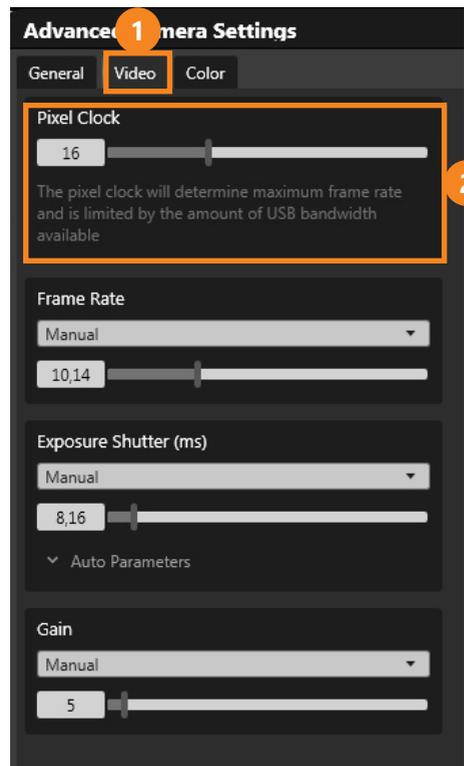
If the image is over-exposed (e.g. on a very sunny day) closing the Iris is recommended.

ACCESS CAMERA SETTINGS



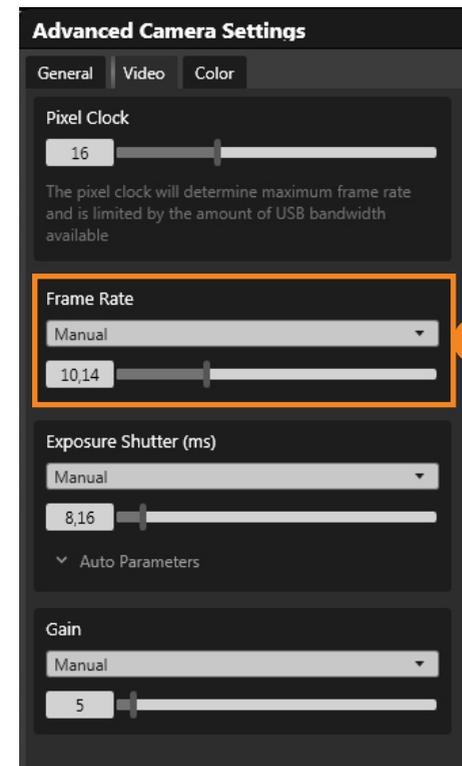
- 1 Click the preview button to see what angle the camera has.
- 2 Select the corresponding angle, such as 'Face on right'.
- 3 Enable 'Use Camera' to include the camera when capturing swings later.
- 4 Click 'Advanced...' button to open up the configuration dialog.

PIXEL CLOCK



- 1 Click the Video tab
- 2 The Pixel Clock is essentially a “speed” setting; increasing this will increase the maximum framerate that is available; increasing it too much may lead to dropped frames.

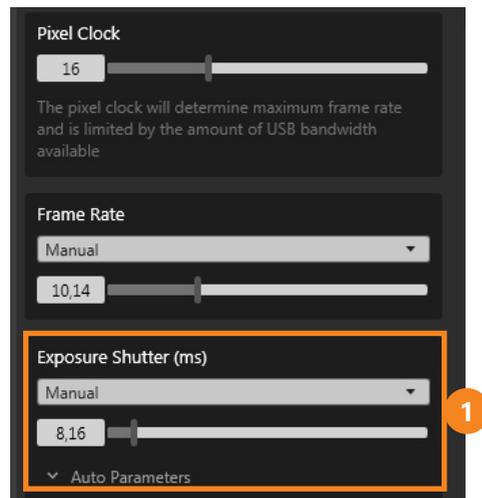
FRAME RATE



- 1 The frame rate setting allows both automatic and manual configuration of the frame rate.

It is recommended that a manual setting is used, since the automatic mode disables other automatic features such as auto gain.

EXPOSURE SHUTTER



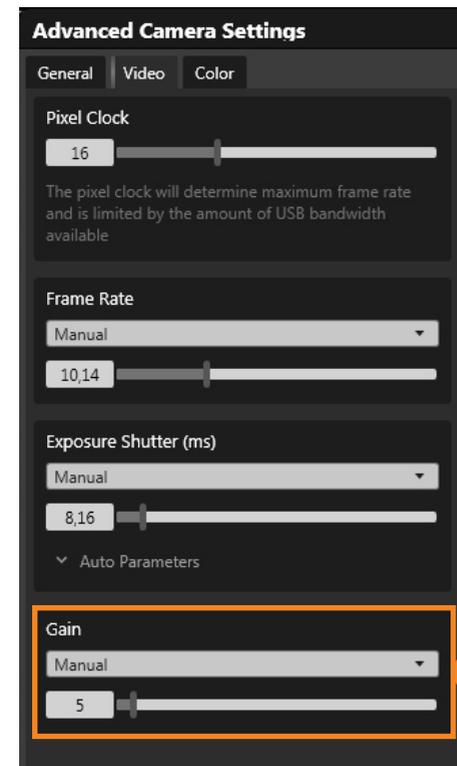
- 1 A low shutter speed is essential for capturing fast movement and reducing motion blur.

For a golf swing it is recommended to use a maximum of 2ms (milliseconds) exposure to get a decent image.

For a very sharp image an exposure setting of 0.5ms is good, but will require a lot of light and is only recommended for outdoor use.

It is possible to set the Exposure Shutter in automatic mode, with an upper limit through the "Max" auto parameter, this is a good option to enable the camera to adjust to various light conditions while maintaining good image quality.

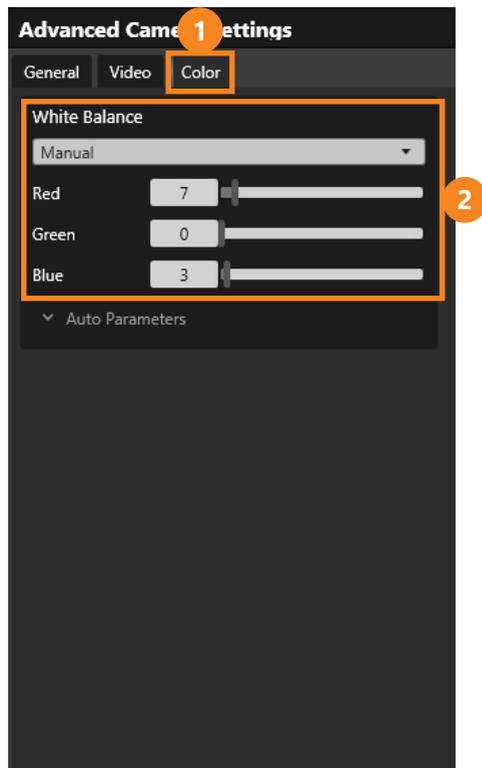
GAIN/ISO



- 1 Gain increases the image brightness, but can also introduce more noise in the image.

In most cases it is recommended to use Auto gain to allow the camera to self-adjust.

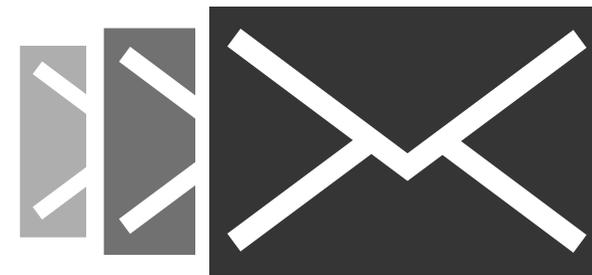
WHITE BALANCE



- 1 Press the Color tab
- 2 It is recommended that white balance is set to Auto to enable the camera to adjust the color balance in the image.

If the colors in the image appear wrong use the Manual setting to tweak the Red, Green and Blue parameters.

SUPPORT



By now you should have successfully configured one or more uEye cameras for use with Swing Catalyst.

If you have any questions, please contact support:

support@swingcatalyst.com

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