

# Digital Microscope Selection Guide





# Advantages of Digital Microscopes

## **Ultra Sharp Digital Magnification**

Microscope technology has rapidly advanced over the years. Today's digital microscopes can magnify smaller objects better than ever before. Digital microscopy camera technology enables you to inspect any object, small or large, in ultra sharp digital magnification. With digital microscopes, lenses and positioning are becoming increasingly better. Although it is not as vivid as the 3 dimensional imagery stereo microscopes offer, the 2 dimensional image that is projected onto monitors has become very comparable with the advancement of technology. Accessories like tilt tables and LED lighting help the 2D image on screen become more vivid and appear more 3 dimensional.

## **USB and HDMI Outputs**

Digital microscopes take the technology even further with microscope cameras and the integration of USB capabilities. Live snapshots can now be taken and saved to an inserted USB memory stick or the internal storage of the microscope for quick access. Saving an image to internal storage makes it easy to access for later inspection or to share inspection images with others not in the lab or office.

## **Ergonomically Designed for Ease of Use**

Working with digital microscopes can reduce overall inspection time. With the image being projected onto a monitor, there is no more neck or eye strain from bending down and looking through binocular lenses, giving ease to long term usage. Having the image magnified onto a screen also allows multiple viewers at the same time which helps improve collaboration and teaching techniques.

## **Versatile Accessories**

Most digital microscopes come with a variety of accessories to enhance inspection for specific projects. Accessories can range from different attachable mounts to creating a variety of angles and working distances with different table pieces. LED lighting accessories also minimizes shadows and hidden elements below the microscope to help with focusing and catching the object at different views.



# Digital vs Stereo

## The Breakdown

	Digital Microscope	Stereo Zoom Microscope
Ergonomic	Yes	No
3D Image	No	Yes
Image Depth	No	Yes
Image Capture	Yes	Selected Few
Measure	Yes	Selected Few
Price Range	\$224 - 5,204	\$995 - 4,543



# Auto Focus

**Click here** to further explore Aven's Auto Focus Systems

## Inspection Systems

### Mighty Cam PRO



#26100-258

- 1080p Full HD Imaging at 60 FPS
- USB+HDMI Outputs and SD Card Port
- Built-in measurement software - No PC required
- Advanced measurement software included for computer connectivity
- Achieve instant auto focus
- Enhances productivity - eliminates eye strain and body fatigue
- Save high resolution image/video files directly to SD card



### AutoFlex



Item #26700-121-PRO

- Superior optics: 7x-70x magnification at a 6 inch working distance
- Achieve instant auto focus – no need to adjust the focus of the lens
- Ultimate flexibility: 18 inch flexible arm with a 360 ball joint provides limitless positioning options
- Crystal clear viewing: 22 inch 1080p monitor
- No computer required for image processing
- LED ring light with 96 ultra-bright, adjustable LEDs
- Eliminates the fatigue and eye strain associated with frequent microscope use

Aven offers many different Mighty Cam PRO systems!  
To explore our Mighty Cam PRO bundles visit our website [www.aventools.com](http://www.aventools.com)



# MicroVue

## All-In-One Digital Microscope

### MicroVue



### Item #26700-140

- Built-in 11.6" monitor for ergonomic viewing
- 17x - 110x magnification (on the built-in monitor)
- HDMI output for external monitor viewing Built-in measurement capabilities
- Save image/video files to USB storage device (USB included)
- Compact design saves bench top space

## MicroVue Accessories:



- 2X Auxiliary Lens**  
**#26700-140-L20X**
- 34.4x - 221x Magnification
  - Metal Ring with glass lens
  - Easy screw in installation



- 0.5X Auxiliary Lens**  
**#26700-140-L05X**
- 8.6x - 55.2x Magnification
  - Metal Ring with glass lens
  - Easy screw in installation



- Focus Mount Arbor**  
**#26700-140-M32**
- Designed to enhance the versatility of the MicroVue Digital Microscope, this Focus Mount with Arbor allows operators to connect the MicroVue to a boom stand. Boom stands are ideal for scanning over larger objects, a feature not available with standard post stands



# Cyclops

## Digital Microscopes

### Cyclops HDMI



#### Item #26700-401

- Magnification ranges up to 132x on a 21.5" HD monitor.
- 2-Megapixel sensor provides operators with exceptionally crisp, high resolution images.
- Articulating Arm Stands available in 17-inch and 12-inch models.
- 10x Objective lens available for purchase offering up to 960x magnification.
- Auto focus within range
- IR remote control
- HDMI output to allow connection to HD monitor \*no computer required\*

BEST FOR: laboratory use, Industrial Inspection, quality control, life sciences, and green technology

### Cyclops 3.0



#### Item #26700-423

- Magnification 13x-140x on a 24" monitor
- Working Distance 22mm to 214mm
- 2M CMOS Sensor
- Full HD 1080P signal output at 60 frames per second
- USB 3.0 Type C high speed transmission
- Application software with support for Windows and MAC
- Image and Video Capture, measurement etc. with included software

BEST FOR: laboratory use, Industrial Inspection, quality control, life sciences, and green technology

[Click here](#) to further explore  
Aven's Cyclops Systems

## Cyclops Accessories:



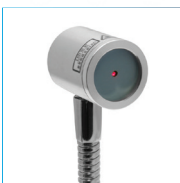
#### 18" Flex Arm #26800B-558

- 360° Swivel head and magnetic base
- Tilt, rotate and position
- 1/4" Screw mount



#### Articulating Arm #26800B-553

- 17.7" Post 16.3" articulating arm
- Heavy Duty Clamp



#### Cyclops Laser Pointer #26700-400-GN02

- Screws at base of cyclops stand
- Flexible gooseneck arm
- Highlights specific areas of your inspection



#### Cyclops Objective Lens 4x w/ Polarizer #26700-400-PL01

- Helps reduce glare and reflection
- 4x Magnification



#### Cyclops 4x Long Focus Lens #26700-400-L-4XLF

- 4x Long Lens offers higher magnification at the same working distance



#### Cyclops Objective Lens 4x #26700-400-L4X

- Replacement lens to increase magnification 4x



#### Cyclops Objective Lens 10x #26700-135-TTB

- Optional lens addition to increase magnification 10x

# Mighty Scope

[Click here](#) to further explore  
Aven's Mighty Scope Systems

## Digital Microscopes

### MightyScope 5M

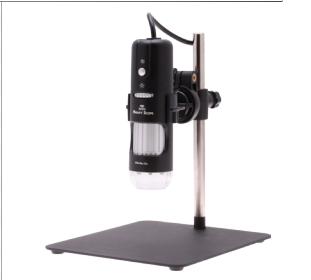


#### Item #26700-209

- Magnification 10x-50x optical and up to 200x digital
- Portable / hand-held
- Easy plug-and-play USB connection
- Built in LED lighting
- Customize with various stands and lighting arrangements
- EZ image software

BEST FOR: engineers, scientists, doctors, lab techs, forensic examiners, educators and more

### 5M w/polarizer



#### Item #26700-209-PLR

- Magnification 10x-50x optical and up to 200x digital
- Included polarizer to help reduce glare, hot spots, and enhance contrast
- Portable / hand-held
- Easy plug-and-play USB connection
- Built in LED lighting
- Customize with various stands and lighting arrangements
- EZ image software

BEST FOR: engineers, scientists, doctors, lab techs, forensic examiners, educators and more

## Mighty Scope Accessories :



#### Mighty Scope 3D Stand With LED's #26700-312-LED

- 360 Flex swivel arm
- Built in Gooseneck LED light



#### Mighty Scope Dual View Stand #26700-215

- Dual View stand allows you to move two Mighty Scopes for viewing the same object from different angles.



#### Mighty Scope Stand W/Fine Adjustment #26700-214

- Single articulating arm allows left to right, up and down, angle and tilt movement



#### Mighty Scope Flex Stand #26700-212

- Flex gooseneck arm
- Stand eliminates vibration and shake features tilt and angle adjustment



#### Mighty Scope Cradle Stand #26700-213

- Allows hand free viewing at fixed working distance
- Stackable adapters allow quick changes in magnification and working distance

\*Works with all Mighty Scopes except 500x model\*



#### Mighty Scope Standard Stand #26700-211

- Tilt and angle adjustment
- Eliminates vibration and shake features



# Mighty Scope Accessories Continued :



**Mighty Scope 5M Polarizer**  
**#26700-217**

- Reduces glare and hot spots while enhancing contrast
- \*Not recommended for 500x Mighty Scope\*



**Mighty Scope 1.3M Polarizer**  
**#26700-216**

- Reduces glare and hot spots while enhancing contrast
- \*Not recommended for 500x Mighty Scope\*

# Mighty Scope *ClearVue*

## All-In-One Digital Microscope

**ClearVue**



**Item #26700-220-MNT**

- Compact All-in-one system
- 8x-25x Magnification
- 1080p Full HD Imaging at 60 FPS
- Rechargeable Battery
- HDMI Output for additional monitor viewing
- ezImageX3 software included
- Enhances productivity - eliminates eye strain and body fatigue
- 5" Built-in HD screen
- Save high resolution image/video files directly to microSD card
- 1080p Full HD Output

**ClearVue**  
 w/Dual Gooseneck LEDs & Back-light



**Item #26700-220-505**

- Compact All-in-one system
- Flexible LED Illumination
- Dual 14.5" Gooseneck LEDs (ideal when reflections from shiny objects need to be eliminated)
- Back-light (ideal for observing transparent objects)
- 8x-25x Magnification
- 1080p Full HD Imaging at 60 FPS
- Rechargeable Battery
- HDMI Output for additional monitor viewing
- ezImageX3 software included
- Enhances productivity - eliminates eye strain and body fatigue
- 5" Built-in HD screen
- Save high resolution image/video files directly to microSD card
- 1080p Full HD Output



# ClearVue Accessories



**Post Stand For Mighty Scope ClearVue  
#26700-220-STN**

- 9" Post stand with an 8.6" x 7" base
- Features fine focus adjustment for precise focusing
- Can be adjusted to inspect objects large and small



**ClearVue w/ Dual Gooseneck LEDs and  
Back-light  
#26700-220-505**

- Flexible Illumination
- 14.5" Dual Gooseneck LEDs
- Back-Light



**ClearVue on 34" Spring Balanced Arm w/  
Table Clamp  
#26700-220-559**

- The arm can be raised, lowered, and tilted as needed
- Allows the ClearVue to be swiveled out of the way when not in use



**ClearVue on 18" Flex Arm Stand w/ Table Clamp  
#26700-220-557**

- Can be flexed and bent to any position
- At the end of the stand is a 360 ball joint with a screw lock providing 360 degrees of rotation



**ClearVue on 18" FlexArm Stand w/ Magnetic Base  
#26700-220-558**

- Can be flexed and bent to any position
- At the end of the stand is a 360 ball joint with a screw lock providing 360 degrees of rotation
- 3" Magnetic base can be mounted to metal surfaces



**ClearVue on Adjustable Spring Balanced Arm w/  
Weighted Base  
#26700-220-559WB**

- Can be raised, lowered and tilted as needed
- Allows the ClearVue to be swiveled out of the way when not in use
- Can be placed anywhere on the work surface



**Compact Gliding Stage X/Y/R  
#26800B-479**

- Compact and Convenient
- The stage smoothly glides horizontally and vertically
- The rotating stage provides 360 degrees of rotation

**ClearVue**  
(Optional Configurations)



**Optional Configurations**

- The Mighty Scope ClearVue can be configured with optional stands to increase working distance, flexibility, and enhance your workspace

**Click here** to further explore  
Aven's ClearVue Systems

# Digital Microscope Table

Product	Magnification	Measurement Software	USB Output	HDMI Output	Built-In Screen	Image/Video Capture
MicroVue	17x-110x	Internal software	For USB Mouse & Flash Drive Only	Yes	Yes	Via software / USB Storage
Mighty Cam Pro	N/A	Internal Software / Mosaic Measurement Software	Yes	Yes	No	Via software / SD Card
Mighty Cam USB	N/A	Mosaic Measurement Software	Yes	No	No	Via software
Cyclops 3.0	13x-140x	UM Viewer	Yes	Yes	No	Via software
Cyclops HDMI	13x-132x	No	No	Yes	No	No
Mighty Cam Eidos	6	Internal software	For USB Mouse & Flash Drive Only	Yes	Yes	Via software / USB Storage
Mighty Scope USB	10x-50x Optical 200x Digital	ezImageX3	Yes	No	No	Via software
Mighty Scope ClearVue	8x-25x	ezImageX3	Yes	Yes	Yes	Via software / MicroSD Card

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