ABOUT US

Conventional microscope systems have severe color, resolution and depth-of-field limitations that interfere with the operators' ability to make clear observations. Recent technical innovations in photography are generating contextually strong results that are more consistent with human perception than was previously experienced. Macroscopic Solutions, LLC provides solutions to overcome these problems so that scientists and educators can generate more robust observations, which can be shared professionally and interpreted by larger portions of students and lay audiences.

The mechanical process uses a motorized stage that moves the object relative to the camera. Images are automatically captured from back to front with an open aperture to record thin, overlapping focal sections that will be used to recreate and show total depth of the targeted specimen. Images are captured using an open aperture because it keeps ISO levels low and exposure time fast, which produces the sharpest possible image of each individual focal plane. The computer process distinguishes sharp from blurry as represented by the image. The blurry areas of each image is discarded and the sharp areas are blended together until the entire image is displayed completely in focus; hence the term, focus stacking.

The Macropod technology allows the operator to recreate a visually striking image that combines the structural detail of an SEM, with the color detail of a microscope, without having to prepare the specimen on a slide or powder the specimen for an SEM. This defines the Macropod a non-destructive technology for all purposes relating to conservation. Furthermore, the technology is still capable of generating images of slides, thin-sections and other materials historically prepared for observation by conventional microscopes.

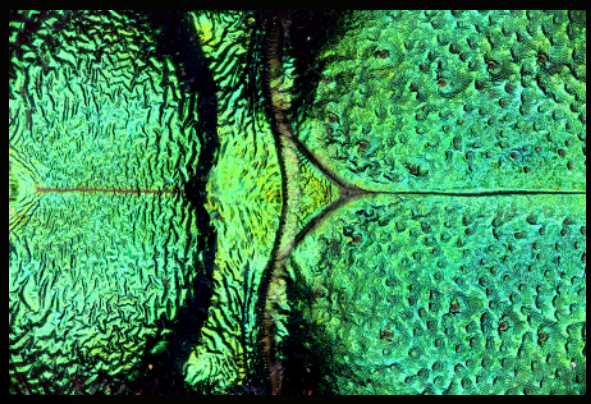
Our innovation is called the Macropod technology and it uses the image generation technique of focus stacking to produce 2D imagery and 3D models that are completely in focus, color accurate and high resolution. There is another technology akin to focus stacking called plenoptics which uses an optical array to refocus light in front of a cameras' sensor. This is a low-resolution and low-light technique that we are not currently exploring. Instead, we are part of a large, but relatively small group of hobbyists, researchers and professionals who use focus stacking software and hardware solutions designed to capture images of microscopic and macroscopic sized objects without having limitations in depth-of-field, color and resolution.

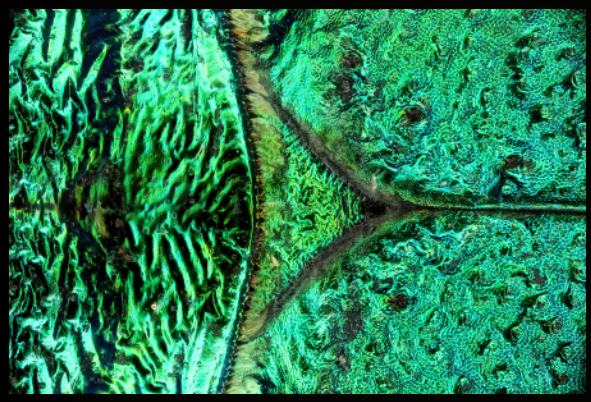
ABOUT US

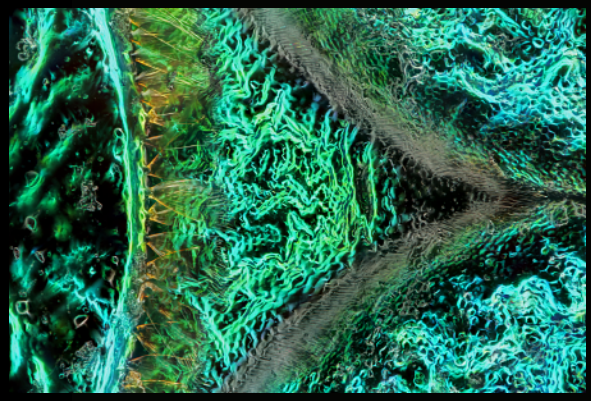
www.macroscopicsolutions.com

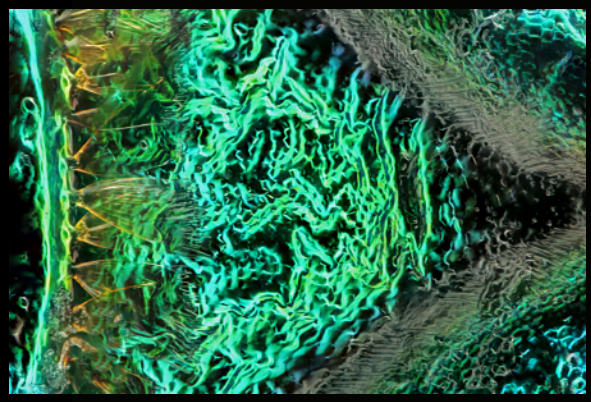
Tiger beetles were traditionally classified as the family Cicindelidae but most authorities now treat them as the subfamily Cicindelinae of the Carabidae (ground beetles). The most recent classifications, however, have relegated them to a monophyletic subgroup within the subfamily Carabinae, though this is not yet universally accepted. Accordingly, there is no consensus classification for this group, at any level from family down to subspecies, and it can be exceedingly difficult to decipher the taxonomic literature surrounding this group. Many genera are the result of the splitting of the large genus Cicindela, and many were described by the German entomologist Walther Horn.

Images captured with Macropod PRO at 1x, 5x, 10x, 50x, 100x



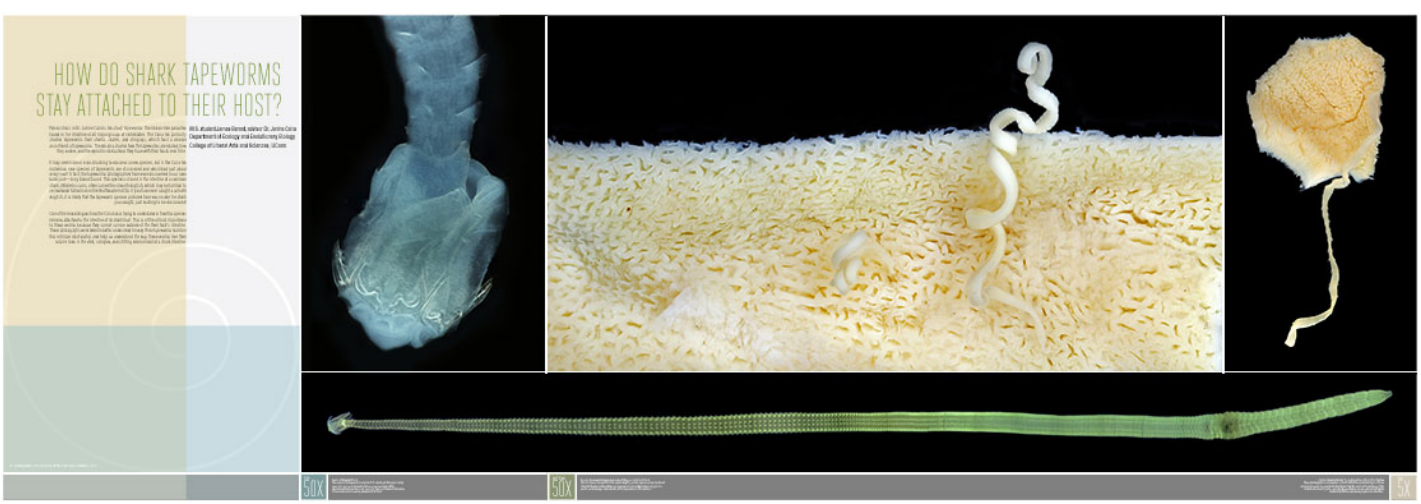






Deer flies are bloodsucking insects considered pests to humans and cattle. They are large flies with large brightly-coloured compound eyes, and large clear wings with dark bands. They are larger than the common housefly and smaller than the horse-fly. There are 250 species of deer fly in the genus Chrysops.

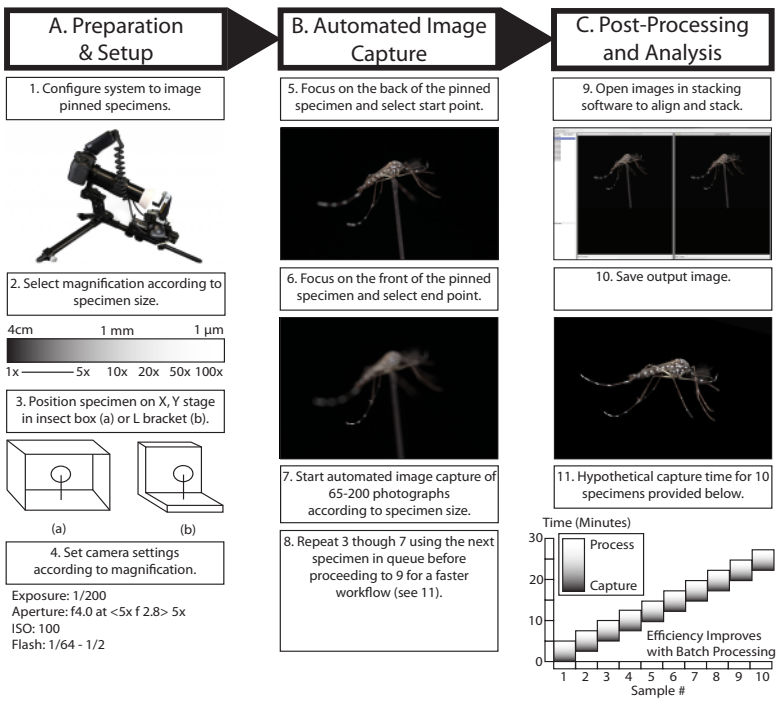
TABLE OF CONTENTS



The primary function of a Macropod as a photographic apparatus is to create focus stacked (z-stack) images of a specimen. The apparatus includes a rigid longitudinal member having a longitudinal axis and includes translational and rotational stages that are designed to move the specimen relative to the camera mount. The translational device allows for precise positioning and panoramic style imaging. The rotational device allows for the specimen to be automatically rotated 360° around a first axis that is perpendicular to the longitudinal axis to generate 3D movies and point clouds that can be used for 3D printing, volumetric analyses and as visual aids for research and educational purposes. Macropod systems achieve all this while maintaining a compact, rigid and reliable platform that can be easily transported and carried into the field using only the provided backpack. Macropod systems are available in a variety of configurations for imaging a diverse range of scientific, industrial and material specimens. Each system includes all necessary hardware and software for immediate use. The 1-5x stereoscopic lens is best used for pinned insects, rocks, fossils, minerals, metals, plants and slides that are smaller, but not limited to, 4 cm in size. A vertical stage is included for all subjects larger than 4 cm in size.

In The Box

Canon EOS 6D Mark II or 5DSR DSLR Camera Body, Macro Photo MP-E 65mm f/2.8 1-5x Lens, Canon 24-105mm f/4.0L IS USM AF Lens, Canon EF 100 Macro USM AF/MF Lens, Canon MT-26EX-RT Macro Twin Lite Flash, Macroscopic Solutions Diffuser Set, Macroscopic Solutions Flash Mounts, Heavy Duty Anodized Aluminum Tripod, Risers, Mounts and Brackets, X-Y Rack an Pinion Stage, Automated Goniometer for Automated Rotation, Stackshot 3X Controller and Rails, Connector Cables, Macropod Hardware, Professional Zerene Stacker Software License, 3D Modeling Photoscan Standard Software License, Eastern Mountain Sports Boda 40L Backpack with custom foam Interior, Vertical Stand for Lab Bench, Bench Lamp, Tool Kit, Polarizing and UV Filters, Fluorescence Adapters, 30 Days of Support, 1 Year Warranty for Electronic, 5 Year Warranty for Hardware, Optional Laptop or Desktop and Extended Support Packages.



3D Modeling Capabilities

The secondary function of a Macropod is to create 3D models of 1) small specimens ranging from >100 microns to 2) broad landscapes/terrain/outcrops in the field (∞). Imagery acquired is processed using photogrammetry in order to create an accurate 3D representation of the subject being photographed.

Ergonomics

Macropod imaging systems are designed to be ergonomically beneficial. The microscope/camera live view is transferred to a computer screen which eliminates eye and back strain commonly experienced when looking through microscope binoculars. The motorization/automation of the system naturally lends itself to ergonomics and work flow. Light intensity and other camera settings are adjusted through a user-friendly interface on the computer.

Additional Capabilities and Advantages

~ Macropod imaging systems utilize reflected, transmitted, fluorescent and cross-polarized light sources.

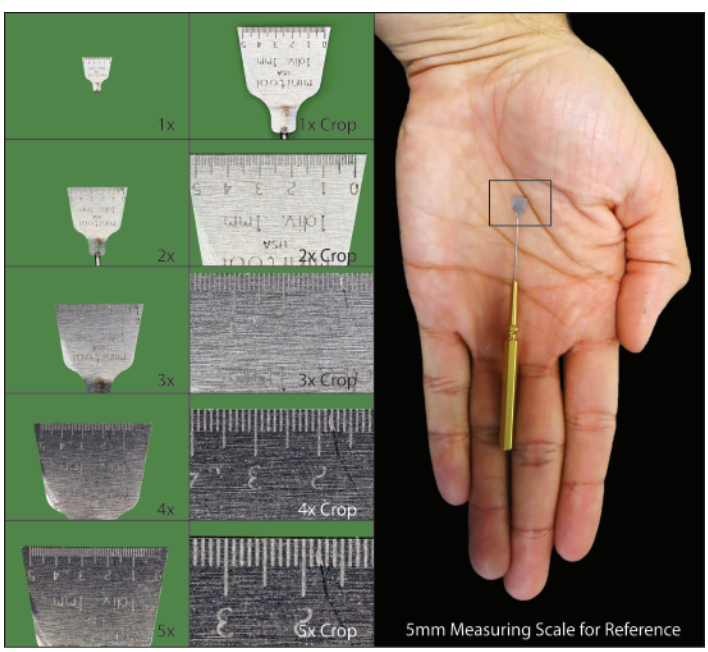
~ The systems can be configured for each lighting technique while ensuring a smooth, even light distribution.

~ The camera body incorporates a GPS receiver so that images captured in the field can be georeferenced in a geospatial reference frame.

~ Sample preparation is not needed and imaging methods are non-destructive.

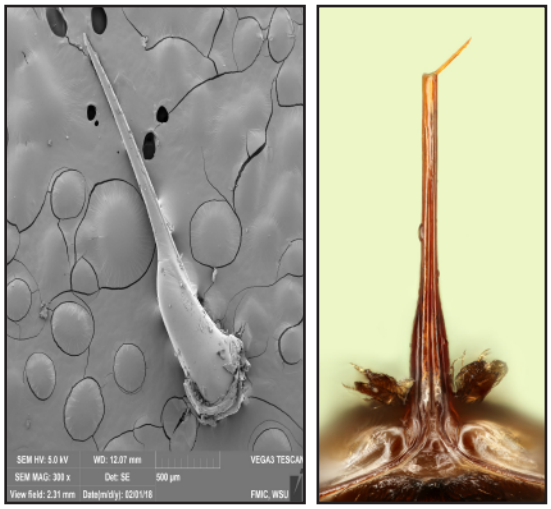
~ The systems are capable of imaging dry specimens as well as specimens in solution.

~ Macroscopic Solutions' imaging systems are modular, meaning they are compatible with other Macropod products. Additional and future capabilities can be added without the need to purchase separate systems.



SYSTEM		
Macropod PRO 3D: 26 Megapixels	MP-PRO-3D-6D	$22,419.00
Macropod PRO 3D: 51 Megapixels	MP-PRO-3D-5DSR	$24,719.00
ADD COMPUTER		
Apple iMac PRO 27" Desktop	MP-COMP-AP-MAC-AC	$6,200.74
Microsoft Surface Studio 28" Desktop w/ Surface Dial	MP-COMP-MS-SS-SD	$5,055.07
Apple 15.4" MacBook Pro w/ Touch Bar	MP-COMP-AP-LT-AC	$3999.00
Microsoft 13.5" Surface Laptop	MP-COMP-MS-SS-LT	$2699.00
ADD TRAINING & SUPPORT		
Extended: On Site Training Session & 1 Year Remote Support	MP-TS-EXTE	$11,706.28
Premium: (2) On Site Training Sessions & 3 Years Remote Support	MP-TS-PREM	$6,689.30
International: On Site Training Session & 1 Year Remote Support	MP-TS-INTE	$11,706.28

The Micro Kit is a Macropod PRO 3D accessory that combines an assortment of high quality long working distance objectives, diffusers, adapters and lenses to generate professional imagery at variable and high magnifications. The innovative configuration provides a stable platform and ideal separation distance that better preserves clarity and resolution than contemporary microscope cameras offer. The Micro Kit includes the 7.5x, 10x, 20x, 50x and 100x M Plan APO LWD objectives, a Canon USM II 70-200 mm f2.8 lens, stabilizing adapters and diffusers for even illumination. This unique configuration provides superior imaging performance for details >0.4 and <500 microns in size.



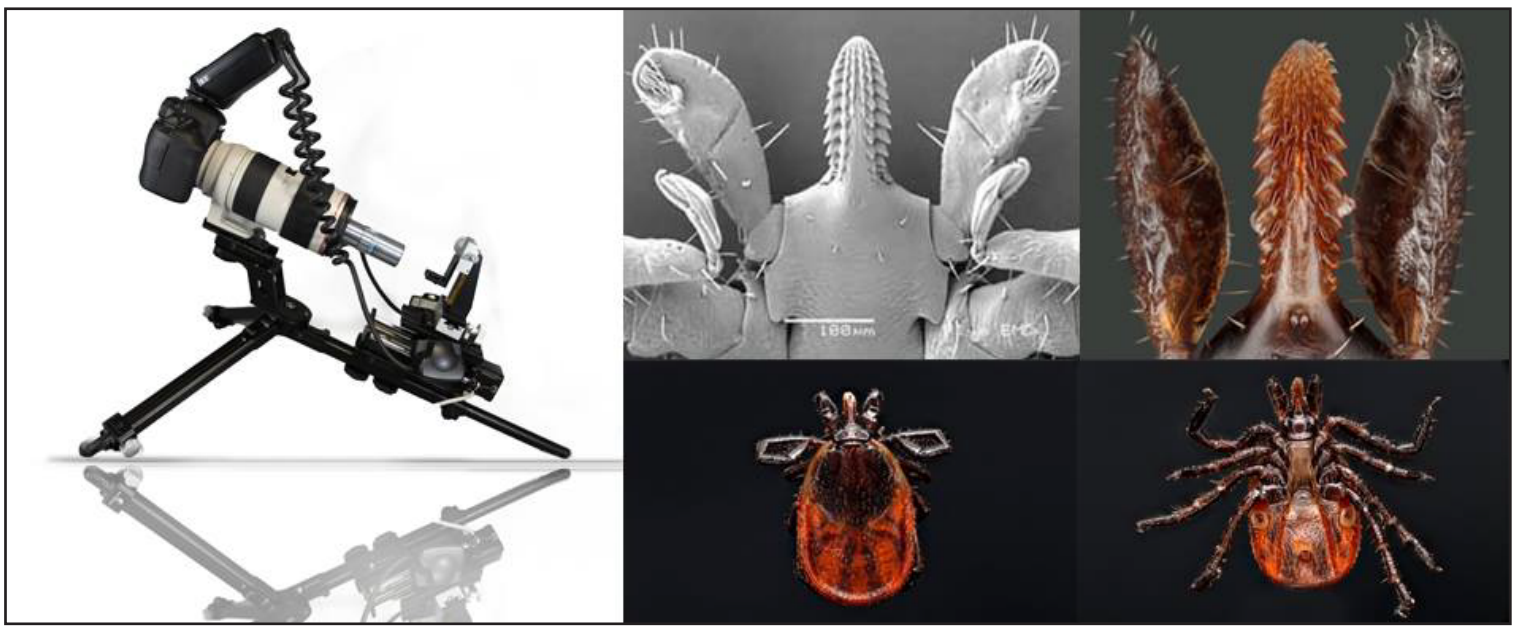
SEM Photomicrograph of Bee Stinger (Left) in comparison with a Macropod Micro Kit 20x Photomicrograph (Right).

In The Box

Canon EF 70-200mm f/2.8L IS II USM Lens, Luminesque 77mm Circular Polarizer and UV Slim PRO Filter Kit, Micro Adapters: Adapter Plate and Lens Foot Plate, 7.5x, 10X, 20x, 50x, 100x Mitutoyo Plan Apo Infinity-Corrected Long Working Distance Objectives, Macroscopic SOlutions Diffusers

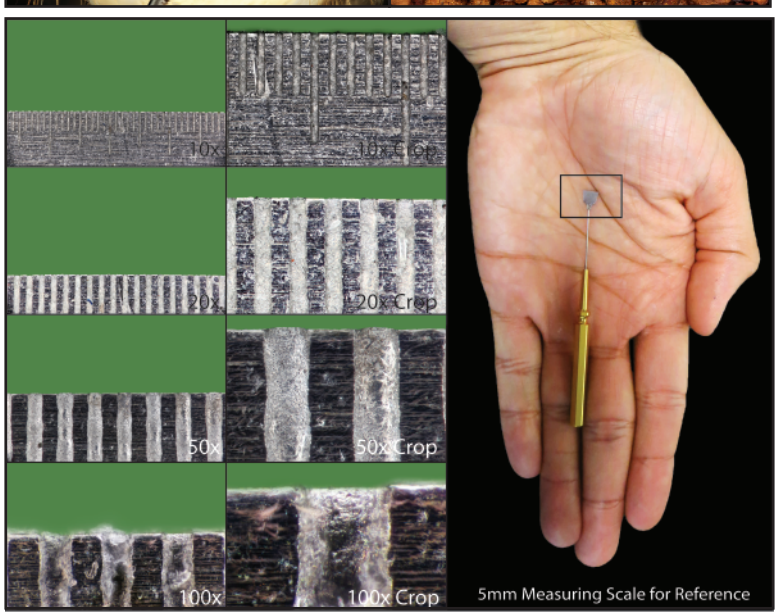
MACROPOD MICRO KIT

www.macroscopicsolutions.com



About

Mitutoyo's objectives are world-renowned for setting the standard of excellence for long working distance optics. They have achieved the best combination of working distance and optical performance by using a new approach and avoiding outdated conventions used by others. In order to maintain as high a numeric aperture and contrast as possible, the lenses are all Plan Achromats. An apochromatic objective lens is chromatic aberration corrected for red, blue and yellow. Optimized for bright-field illumination (incident illumination parallel to optical axis), these lenses are ideal for in-line llumination applications. For an infinity correction system, a 200mm tube lens is required and our solution is the high performing Canon EF 70-200 mm telephoto lens.



	Apo 7.5x	Apo 10x	Apo 20x	Apo 50x	Apo 100x
Numerical Aperture	0.21	0.28	0.42	0.55	0.70
Working Distance (mm)	35.0	33.5	20.0	13.0	6.0
Focal Length(mm)	26.67	20.0	10.0	4.0	2.0
Resolving Power (µm)	1.3	1.0	0.7	0.5	0.4
Depth of Focus(µm)	6.2	3.5	1.6	0.9	0.6
Weight(g)	240	240	270	290	320

SYSTEM		
Macropod MICRO KIT	MP-MK-CAN-MIT	$17,413.00
OBJECTIVES		
Mitutoyo M Plan APO 7.5x	MP-MK-MIT-7.5	$1,495.00
Mitutoyo M Plan APO 10x	MP-MK-MIT-10	$1,265.00
Mitutoyo M Plan APO 20x	MP-MK-MIT-20	$2,845.00
Mitutoyo M Plan APO 50x	MP-MK-MIT-50	$3,904.00
Mitutoyo M Plan APO 100x	MP-MK-MIT-100	$4,450.00

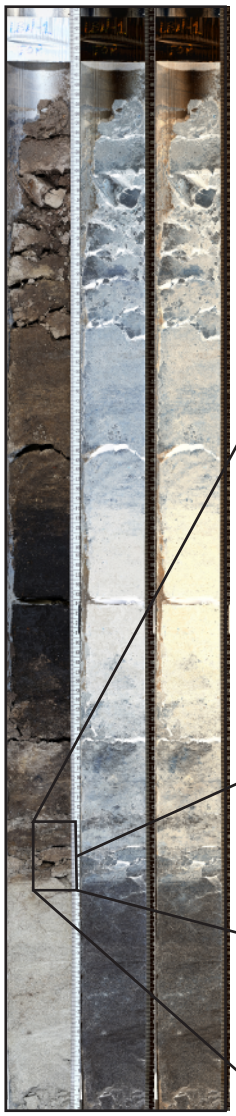
The Macropod Drill Core is a professional, automated scanning platform built to automatically image sections of concrete, ice, sediment and rock cores of various depths and boring diameters. The system stabilizes the core sample and allows the camera to combine focus stacking capabilities with panoramic photography in order to produce crystal clear results without a human presence. Capture time for panoramic imagery is approximately 28 seconds per meter and post-processing is completed within 5 minutes therafter. Panoramic imaging paired with focus stacking will generate marginally better results; however, is less time efficient. Focus stacking capabilities are best used when generating images requiring the highest resolution available. The system includes the fluorescence kit, which further reveals hidden kerogen, gases and minerals. The system is also used for a wide variety of metallurgical inspections, having imaged drive shafts, piping, and other cylindrical materials up to a length of 2.5 meters and diameter of 0.5 meters. The system can be fitted with a second carriage in order to image using ultra-violet light.

In The Box

1.5, 2 or 3 Meter Rails, Canon EOS 6D Mark II or 5DSR DSLR Camera Body, Macro Photo MP-E 65mm f/2.8 1-5x Manual Focus Lens for EOS, Canon EF 100 Macro USM AF/MF Lens, Canon MT-26EX-RT Macro Twin Lite Flash, Macroscopic Solutions Diffuser Set, Macroscopic Solutions Flash Mounts, Heavy Duty Anodized Drill Core Slider, Risers, Mounts and Plastic Brackets, Stackshot 3X Controller and Rails, Connector Cables, Macropod Hardware, Professional Zerene Stacker Software License, Fluorescence Kit, 30 Days of Support, 1 Year Warranty for Electronic, 5 Year Warranty for Hardware, Optional Desktop Computer, Option to add UV capabilities with a second carriage.

MACROPOD DRILL CORE

www.macroscopicsolutions.com

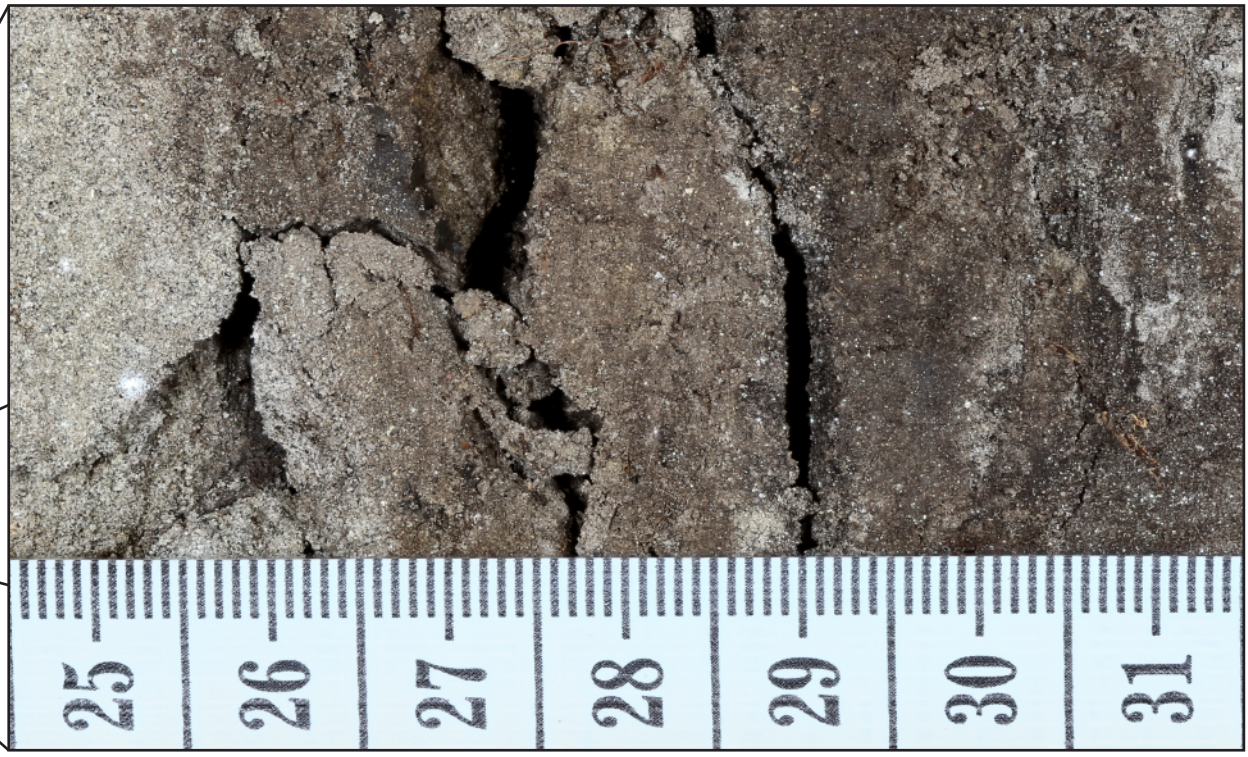


Capabilities

The primary function of the Macropod Drill Core is to automatically capture and combine focus stacked and panoramic imagery to generate high resolution, contextual images of geological core samples.

Ergonomics

The Macropod drill core is designed to be ergonomically beneficial. The camera live view is transferred to a computer screen which eliminates eye and back strain commonly experienced when looking through microscope binoculars. The motorization/automation of the system naturally lends itself to ergonomics and work flow.



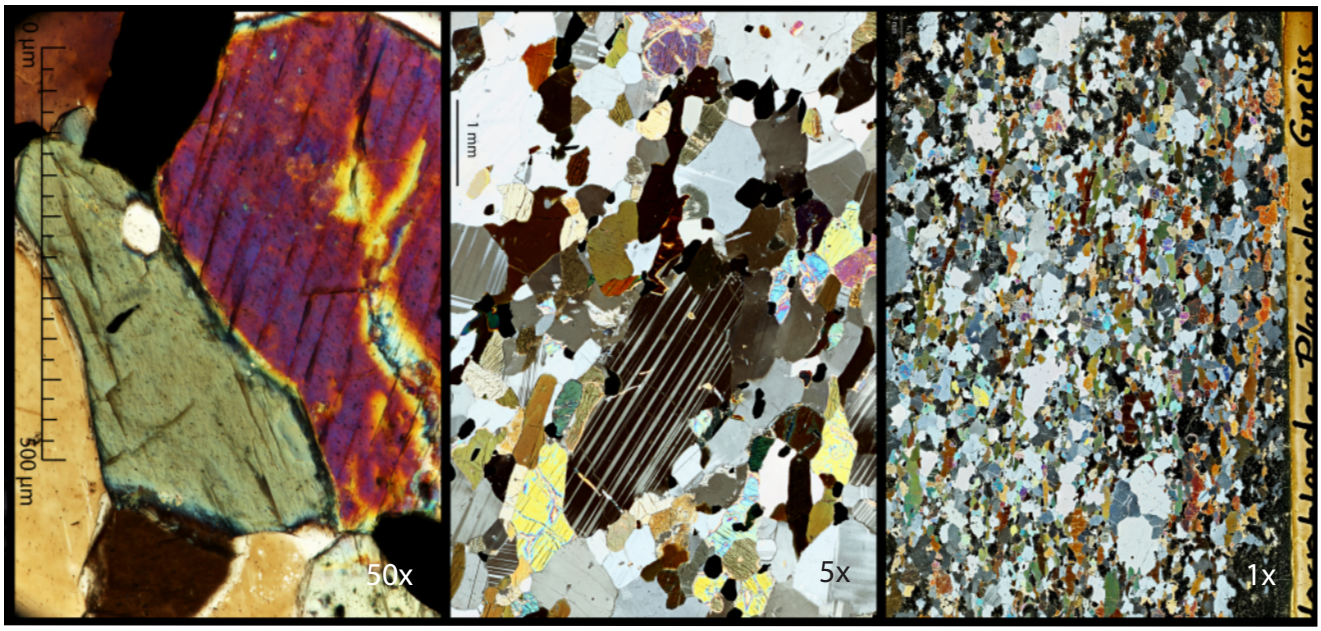
SYSTEM		
Macropod DRILL CORE 1.5 Meter Rig Only	MP-DC-1	$7,399.00
Macropod DRILL CORE 2 Meter Rig Only	MP-DC-2	$8,399.00
Macropod DRILL CORE 2.5 Meter Rig Only	MP-DC-3	$9,399.00
Macropod DRILL CORE 1.5 Meter 26 Megapixels	MP-DC-1-6D	$12,999.00
Macropod DRILL CORE 2 Meter 26 Megapixels	MP-DC-2-6D	$13,999.00
Macropod DRILL CORE 2.5 Meter 26 Megapixels	MP-DC-3-6D	$14,999.00
Macropod DRILL CORE 1.5 Meter 51 Megapixels	MP-DC-1-5DSR	$15,299.00
Macropod DRILL CORE 2 Meter 51 Megapixels	MP-DC-2-5DSR	$16,299.00
Macropod DRILL CORE 2.5 Meter 51 Megapixels	MP-DC-3-5DSR	$17,299.00
Ultra Violet Dual Carriage and Camera Conversion	MP-DC-UV	$18,467.00
ADD COMPUTER		
Apple iMac PRO 27" Desktop	MP-COMP-AP-MAC-AC	$6,200.74
Microsoft Surface Studio 28" Desktop w/ Surface Dial	MP-COMP-MS-SS-SD	$5,055.07
Apple 15.4" MacBook Pro w/ Touch Bar	MP-COMP-AP-LT-AC	$3999.00
Microsoft 13.5" Surface Laptop	MP-COMP-MS-SS-LT	$2699.00
ADD TRAINING & SUPPORT		
Extended: On Site Training Session & 1 Year Remote Support	MP-TS-EXTE	$6,689.30
Premium: (2) On Site Training Sessions & 3 Years Remote Support	MP-TS-PREM	$11,706.28
International: On Site Training Session & 1 Year Remote Support	MP-TS-INTE	$11,706.28

MACROPOD PETROGRAPHIC

www.macroscopicsolutions.com

The Macropod Petrographic is a rigid photomacrography system that allows slides/thin sections to be imaged and analyzed in plain light and cross polarized light using advanced focus stacking techniques. The system comes with additional components to image hand samples ranging 1mm to 4cm in size.

"The equipment produces photomicrographs sharper and showing more detail than I could ever obtain, even with a research-grade polarized light microscope." - Jim Nicholls

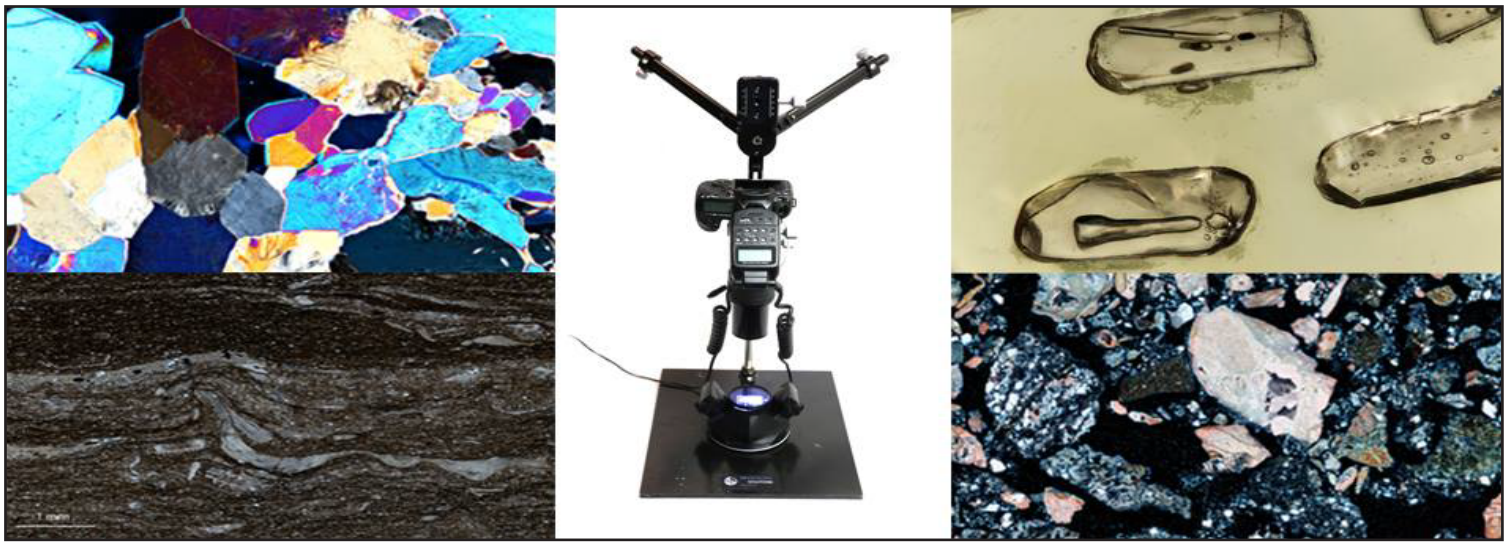


In The Box

Canon EOS 6D Mark II or 5DSR DSLR Camera Body, Macro Photo MP-E 65mm f/2.8 1-5x Manual Focus Lens for EOS, Canon MT-26EX-RT Macro Twin Lite Flash, Macroscopic Solutions MP-E 65mm Diffuser, Macroscopic Solutions Flash Mounts, Heavy Duty Anodized Aluminum Tripod, Risers, Mounts and Brackets, Vertical Stage, Petrographic Analyzer, Stackshot Controller and Rails, Connector Cable, Macropod Hardware, Professional Zerene Stacker Software License, 30 Days of Support, 1 Year Warranty for Electronic, 5 Year Warranty for Hardware, Optional Laptop or Desktop and Extended Support Packages.

MACROPOD PETROGRAPHIC

www.macroscopicsolutions.com



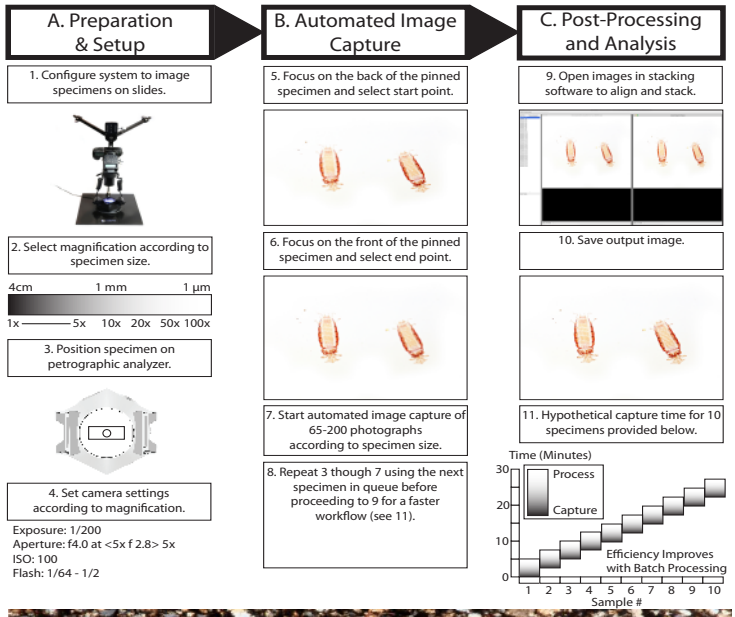
Capabilities

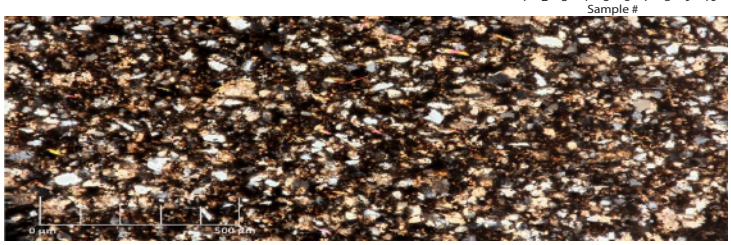
The Macropod Petrographic is the optimal solution for producing focus stacked imagery of slides and thin sections. The system includes rotating stages and polarizing filters for advanced petrographic analysis. Lighting is achieved through a combination of reflection and transmission, which offers better performance when imaging metals, inclusions and fine grained materials.

Ergonomics

The Macropod Petrographic is designed to be a heavy duty platform offering greater flexibility and slide manipulation. The camera live view is transferred to a computer screen which elimi- nates eye and back strain commonly experienced when looking through microscope binoculars. The motorization/automation of the system naturally lends itself to ergonomics and work flow.

Left Page: Hornblende Plagiocalse. Above: Macropod Petrographic and images of Zircons and Thin Sections. Right: Montney Shale at 50x





SYSTEM		
Macropod Petrographic: 26 Megapixels	MP-PETRO-6D	$14,917.00
Macropod Petrographic: 51 Megapixels	MP-PETRO-5DSR	$17,216.00
Petrographic Analyzer	PA-PETRO	$599.00
ADD COMPUTER		
Apple iMac PRO 27" Desktop	MP-COMP-AP-MAC-AC	$6,200.74
Microsoft Surface Studio 28" Desktop w/ Surface Dial	MP-COMP-MS-SS-SD	$5,055.07
Apple 15.4" MacBook Pro w/ Touch Bar	MP-COMP-AP-LT-AC	$3999.00
Microsoft 13.5" Surface Laptop	MP-COMP-MS-SS-LT	$2699.00
ADD TRAINING & SUPPORT		
Extended: On Site Training Session & 1 Year Remote Support	MP-TS-EXTE	$11,706.28
Premium: (2) On Site Training Sessions & 3 Years Remote Support	MP-TS-PREM	$6,689.30
International: On Site Training Session & 1 Year Remote Support	MP-TS-INTE	$11,706.28

MACROPOD ACCESSORIES

www.macroscopicsolutions.com


MP-COMP-AP-MAC-AC


MP-COMP-MS-SS-SD


MP-COMP-AP-LT-AC


MP-COMP-MS-SS-LT

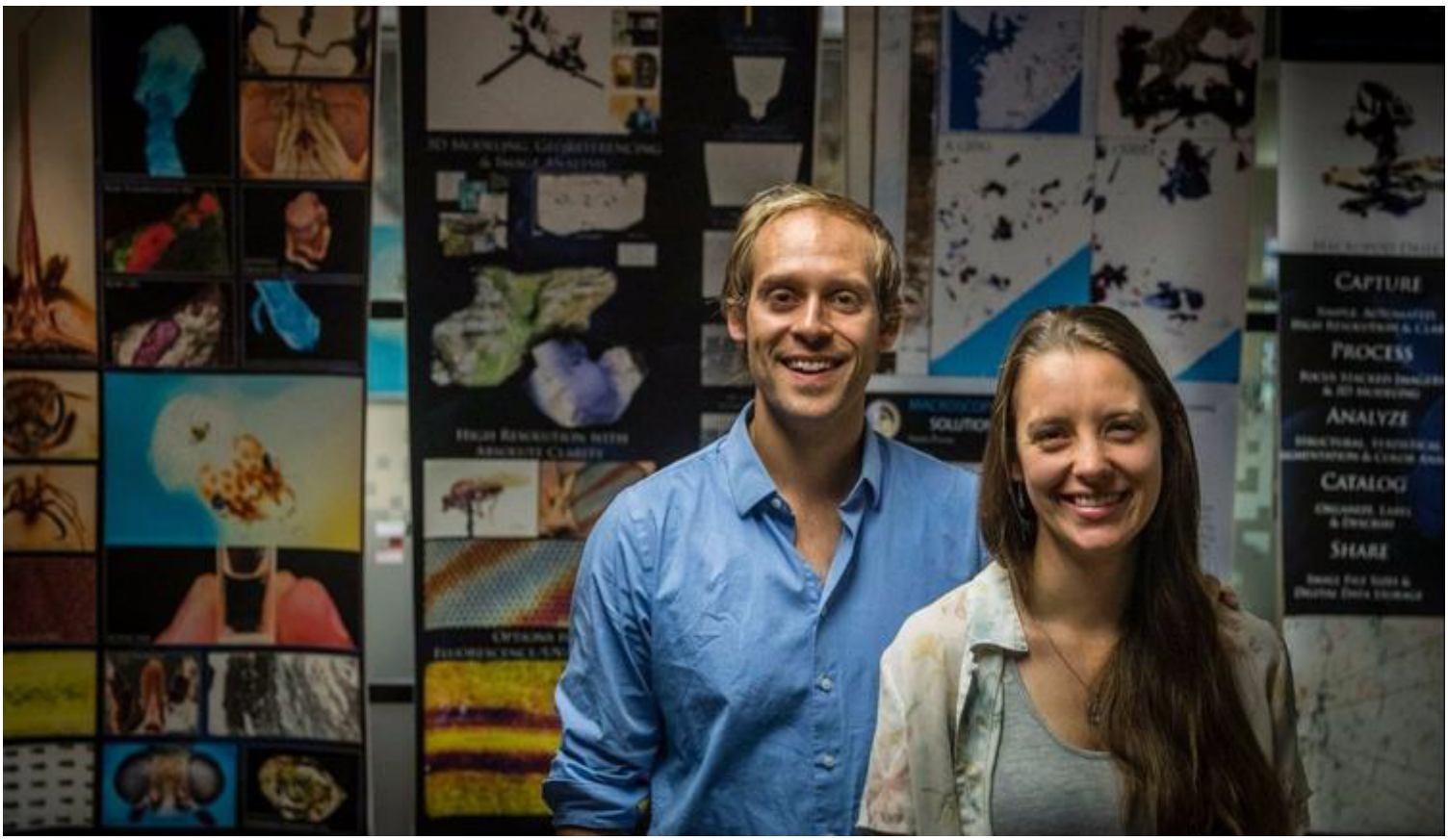

PA-DIF-MIT
PA-DIF-MP-E-65


PA-RP


PA-SSMS-20


PA-DIF-MT-24-EX

CAMERA BODIES		
Canon EOS 5D Mark III DSLR Camera (Body	CAE5D3	$3,999.00
Canon EOS 5DS R DSLR Camera (Body Only)	CAE5DSR	$4,199.00
Canon EOS 6D Mark II DSLR Camera (Body Only)	CAE6D2	$2,199.00
CAMERA LENSES		
Canon Macro MP-E 65mm 1-5x, with Collar and Foot Plate Adapter	CA6528MP	$1079.00
Canon Macro EF 100mm f2.8, with Collar and Foot Plate Adapter	CA10028MEFQ	$780.00
Canon 24-105mm Telephoto	CA241054LIS	$1,249.00
Canon EF 70-200mm f2.8 IS II Telephoto	CA7020028LIQ	$2,300.00
CAMERA FLASHES & POWER		
Canon MT-26EX-RT Macro Twin Lite	CAMT26EX	$1,249.00
Canon CP-E4N Compact Battery Pack for MT-26EX-RT	CACPE4N	$219.00
Panasonic Eneloop Pro High Capacity Power Pack w/ Charger, 12 AA and 2 AAA NiMH	K-KJ17KHC82A	$119.00
FLASH DIFFUSERS		
(2) Set Diffusers for Mitutoyo M Plan Objectives	PA-DIF-MIT	$49.00
Diffuser for MP-E 65mm 1-5x Long Working Distance	PA-DIF-MP-E-65-WD	$49.00
Diffuser for MP-E 65mm 1-5x Short Working Distance	PA-DIF-MP-E-65	$49.00
(2) Turtledove Diffusers for Canon MT-24-EX	PA-DIF-MT-24-EX	$79.00
(2) Turtledove Diffusers for Canon MT-26EX-RT	PA-DIF-MT-26EX-RT	$79.00
(2) Turtledove Diffusers for Yongnuo YN-24-EX	PA-DIF-YN-24EX-TTL	$79.00
ACCESSORIES		
Excitation Filters for Fluorescence Photography	PA-FL2	$599.00
Petrographic Anaylzer for Petrographic Analysis	PA-PETRO	$599.00
Rack and Pinion Slider Stage	PA-RP	$983.00
Macropod Hardware Kit	PA-MPK	$1,499.00
Mitutoyo to 77mm Objective Adapter and (2) Mitutoyo Diffusers	PA-77MADIF	$79.00
StackShot 3X, Rotary Table, Arca Plate, Camera Cable and Zerene Stacker License, Starter Kit	PA-SP-SS3X	$1910.00
RRS Tripod	RRS-TP-243	$450.00
RRS (2) Set Adapters	RRSB2-PROL/L	$258.00
RRS (2) Set Foot Plates	MP-DC-3-5DSR	$163.00
EMS Boda	MP-PACK-40L	$449.00
Vertical Support Stand 20 Lbs	PA-SSMS-20	$499.00
Vertical Support Stand 7 Lbs	PS-SSMS-7	$399.00
SOFTWARE		
Agisoft Photoscan Standard	AGI PHO	$179.00
Agisoft Photoscan Standard Educational	AGI PHO EDU	$59.00
Agisoft Photoscan Professional	AGI PHO PRO	$3,599.00
Agisoft Photoscan Professional Educational	AGI PHO PRO EDU	$549.00
SERVICES		
Camera Sensor Cleaning	MS-MC-CB	$149.00
Camera Lens Cleaning	MS-MC-L	$89.00
Objectives Cleaning	MS-MC-O	$119.00
General Service or Repair	MS-RP	ESTIMATE ONLY
Individual Specimen Imaging (Cost per Specimen)	MS-IS-ISS	$89.00
Enterprise/Bulk Collection Imaging	MS-IS-COLL	ESTIMATE ONLY
Large Format Imaging Commercial	MS-IS-LF	$3,000.00
Drill Core Imaging (Cost is per Meter)	MS-IS-DC	$150.00
COMPUTERS		
Apple iMac PRO 27" Desktop	MP-COMP-AP-MAC-AC	$6,200.74
Microsoft Surface Studio 28" Desktop w/ Surface Dial	MP-COMP-MS-SS-SD	$5,055.07
Apple 15.4" MacBook Pro w/ Touch Bar	MP-COMP-AP-LT-AC	$3999.00
Microsoft 13.5" Surface Laptop	MP-COMP-MS-SS-LT	$2699.00



Geologist Mark Smith and biologist Annette Evans co-own Macroscopic Solutions in Tolland, a company based on their innovative microscope system, called a Macropod, which takes incredibly detailed photographs of scientific specimens. (Lauren Schneiderman / Hartford Courant)

For over 5 years, we've been honored to serve the academic, industrial and research communities by offering turn-key and customized solutions for individuals with complex imaging requirements. Innovative methods, unique optical configurations and proven techniques allow our range of products to offer a superior imaging performance that is capable of being integrated into the latest research applications. It has been a pure joy of ours learning the needs and requirements of our customers and we're happy to continue serving them and their colleagues for the foreseeable future. Thank you for choosing Macroscopic Solutions, we look forward to working with you.

and so many more....

REVIEWS

www.macroscopicsolutions.com

Physcomitrium pyriforme

Actual Size

"My work focuses on small plants, i.e., bryophytes, and the ability provided by macroscopic solutions to capture microscopic details and display them on large scale banners is simply amazing. Excellent medium to draw attention to the architecture of these miniature plants. Whole set-up is user friendly and highly recommended to anyone seeking to capture details of small organisms that our eyes alone can not distinguish!"
- Dr. Bernard Goffinet - UConn

"It seems everything has been thought of and worked through in the Macropod. I was instantly able to take amazing photos that have only gotten better through tutorials and personal help from one of the owners. Amazing support. I couldn't be happier."
-Eric Cleveland - New Roads School

"I highly recommend Macroscopic Solutions. They worked with me to develop a perfect solution for my macrophotography needs. The set-up is portable, easy to set up, and easy to use. More importantly to me, however, has been the outstanding service provided. They have been responsive to every query and have helped me develop a method and throughput that works perfect for me."
-Dr. Geoffrey Morse - University of San Diego

"I'm a microscopy technician at a university where we have the Macropod Pro and Micro Kit. The set up of the instrument is easy once you learn how to use it. Macroscopic Solutions has great customer service and always answers my questions in a helpful and pleasant manner. They have provided me with great tips on how to perfect my images. The photo quality is superb and is definitely research quality. I highly recommend Macroscopic Solutions and the Macropod for anyone who wants full color, high resolution, high magnification photos."
- Marlene Rosen - Hofstra University

"Acquired in the fall of 2015, the Macropod Imaging System gives the collection a new way to present its holdings to the public. The system acts like a microscope, but it has a camera instead of a magnification lens. The lens points down at the specimen. Photographs of three-dimensional specimens are taken using auto-stacking, a technique in which pictures are snapped at intervals as the lens inches closer to the specimen. Once completed, the computer stacks and combines them to create a detailed photograph with a greater depth of field. One undergraduate who works in the CUIC will be graduating in May 2016 with five publications. He used the Macropod Imaging System to illustrate specimens in all of his papers. The imaging system is also used to take photographs of slide collections. This allows researchers around the world to view the CUIC and collaborate with the university."
-Dr. Jason Dombroskie - Cornell University

"The Macropod system has been an absolute game-changer for us, and it has totally changed the way we are approaching macrophotography of minute parasitic wasps, some smaller than 1 mm. in length. Mark Smith has been extremely patient and helpful as we set up the system and learned to use it. The system is very well thought out, and if you follow his instructions, you are almost guaranteed to get great images right from the start. From my perspective, anyone setting up an imaging system for insect specimens should have a look at one of the Macropod systems before making an investment. They are not cheap, but the results are worth every penny."
- Dr. Jim Woolley - Texas A&M University

"The Macropod is incredibly impressive. I just revised my quote from 2 stereomicroscopes with digital cameras to a single high powered, automated number for manipulating specimens before imaging and higher magnification. Paleontological research requires good images, particularly for smaller animals such as fish, which may have interesting structures ranging from the cm scale (bone, fins, overall form) to the micron scale (teeth, scale ornament). One major thing that's really been missing from our toolkit is the ability to create HD image stacks for whole specimens and structures in museum collections. Stacking was mostly limited to lab-based microscope objectives unless one has extensive DSLR experience (which I do not). My research projects can require dozens of specimens, so loans are not always feasible. The previous solution while at collections was to take overview photos with a DSLR on a copy stand and then close-ups with a macro lens and hope for the best. I have over 30,000 images from various museums, and many are unusable as details were lost due to errors in lighting or focus. The Macropod will streamline the process dramatically, as one stacked image can reveal even more than the naked eye and details that previous required close-up images. Macropod images of specimens from previous projects show features that were previously only apparent after extensive microscope work. Plus, the procedure is entirely automated! The macropod will save us precious time on collections visits and in the lab while greatly increasing our imaging abilities."
-Dr. Lauren Sallan - University of Pennsylvania


Actual Size

MACROSCOPIC SOLUTIONS

Inspiring Discovery

WWW.MACROSCOPICSOLUTIONS.COM

Macroscopic Solutions | 1 Technology Dr | Tolland CT 06084 | (410)870-5566

• Actual Size

I recently learned to use the Macropod system to take photos of aquatic invertebrates from freshwater rock pools. I can't believe how quick and easy it is to take amazing, high resolution, photos with the Macropod system. My whole lab agreed that we have never seen such great photos of Daphnia. Photos taken under a microscope just don't compare to the high quality photos you get from the Macropod. If you've used a digital SLR camera before, then setting up and using the Macropod is so easy. And, if you have trouble, the tutorial videos and customer support are fantastic. If you want great photos to promote your science or use photos to explore scientific questions, you need to check out the Macropod. Its amazing!
- Christopher Nadeau - Uconn

Imaged with the Macropod PRO 3D and Micro Kit (Pgs. 6 & 8)