



INNOVATIONLAB
SERVICES



RESEARCH, DEVELOPMENT AND INTEGRATION SERVICES

The Innovation Lab provides a wide range of services to its clients and has already delivered many optics project from concept to mass production. Our design techniques leverage the latest technology such as anamorphic lens, free from diffractive element and meta-lens from super miniature lens for smartphone to very large optical system for cinema and space exploration.


OPTICAL SERVICES

Study and Simulation	Optical Design	Prototyping and Manufacturing Support	Testing and Metrology
<ul style="list-style-type: none"> • Study and project definition • Optical system simulation • Custom case study • Optical design • Optical system performance analysis • Cost estimation 	<ul style="list-style-type: none"> • Parameters evaluation and recommendation • Optical solution space exploration • Preliminary optical design • Final optical design for production • Tolerance and sensitivity analysis • Performance analysis • Stray light and ghost analysis 	<ul style="list-style-type: none"> • Collaboration with manufacturers for production • Lens prototyping • Lens mechanical assembly • Lens certification • Prototyping • Support for manufacturing and mass production 	<ul style="list-style-type: none"> • Measurement protocol creation • Lens testing • Camera modules testing • Complete device testing • Performances and comparison report

RESEARCH, DEVELOPMENT AND INTEGRATION SERVICES

The Innovation Lab provides a wide range of services to its clients. The team is using the latest techniques in imaging, computer vision and AI to constantly innovate.

SOFTWARE SERVICES

Platforms	Imaging Pipeline Consulting	Imaging Algorithm Customisation	Production and Testing Tools
	<ul style="list-style-type: none"> • Imaging pipeline definition and design • Imaging HD/SW benchmarks • Coordination of different 3rd parties to implement image processing pipeline • IQ and analysis of image processing pipeline • Immervision Imaging IPs integration and support • Immervision Imaging IPs tuning and customization • Immervision Imaging IPs porting on embedded platform 	<ul style="list-style-type: none"> • Distortion Correction • Adaptive Dewarping • Adaptive Image Fusion • Adaptive Stitching • Adaptive Distortion Conversion • Data-In-Picture • Lens Shading Correction • Color Correction • Fusion Masking • Electronics Image Stabilization 	<ul style="list-style-type: none"> • Wide angle lenses testing software • Camera calibration software • Creation of custom bench for camera metrology • Custom metrology algorithms

HI-TECH OPTICAL EQUIPMENT IN A SPECIALIZED SETTING

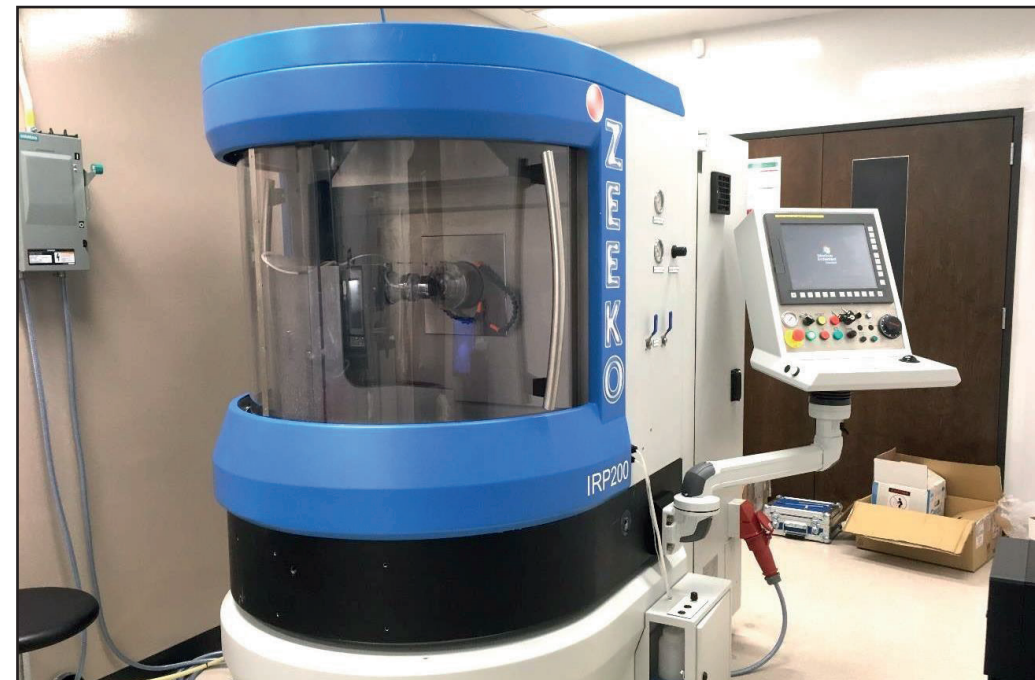
To help reduce your capital investment, the Innovation Lab has access to a wide range of cutting-edge optical technology equipment as well as specially customized settings to conduct tests and experiments.

Description	Manufacturer	Model
Optical test bench	Optikos	LensCheck VIS
Optical test bench	Trioptics	OptiSpheric OptiSurf OptiCentric
Point source microscope	Optical Perspectives Group	
Interferometer	Zygo	Mark GPI-XPS
Interferometer	Zygo	Verifire HD
Interferometer	ESDI	Intellium H2000
Stylus contact profilometer	Veeco	Dektak 150
Inspection microscope	Olympus	STM6
SEM/FBI microscope	FEI	Quanta 3D FEG
Scanning probe microscope	Veeco	Dimensions V
Thin coating system	Leybold	SYRUS-PRO-710
Thin coating system	Intlvac	Nanochrome
Prism coupler	Meticon	2010/M
Spectrometer	Agilent Technologies	Cary 5000 Vis-Nir
Spectrometer	Stellarnet	GW-VIS
Spectrometer	Ocean Optics	Flame-S-XR1-ES
Ultra precision machining system	Precitech	Nanoform 250
Surface profiler	Taylor Hobson	Talysurf PGI Freeform
Ultra precision polishing system	Zeeko	IRP200

HI-TECH OPTICAL EQUIPMENT IN A SPECIALIZED SETTING



Inspection microscope – Olympus STM6



Zeeko IRP200 Ultra -Precision Polishing Machine



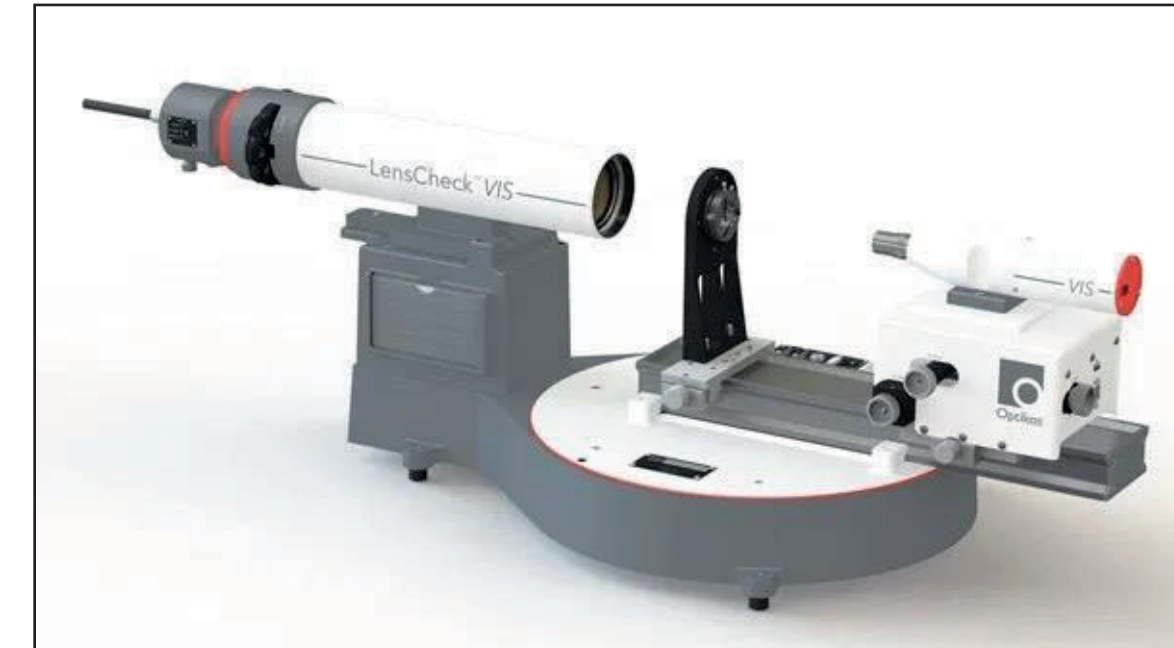
Point source microscope – Optical Perspectives Group



Optical test bench - Trioptics



Interferometer Zygo Verifire HD



Optical test bench – Optikos LensCheck VIS

DEEP SEEING

[dep-seiNG]

Deep Seeing enables smart devices with augmented vision. By capturing high quality visual and contextual data in new ways, it unlocks the potential of Artificial Intelligence. Like superhuman eyes for your smart device.



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IMMERVISION 

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