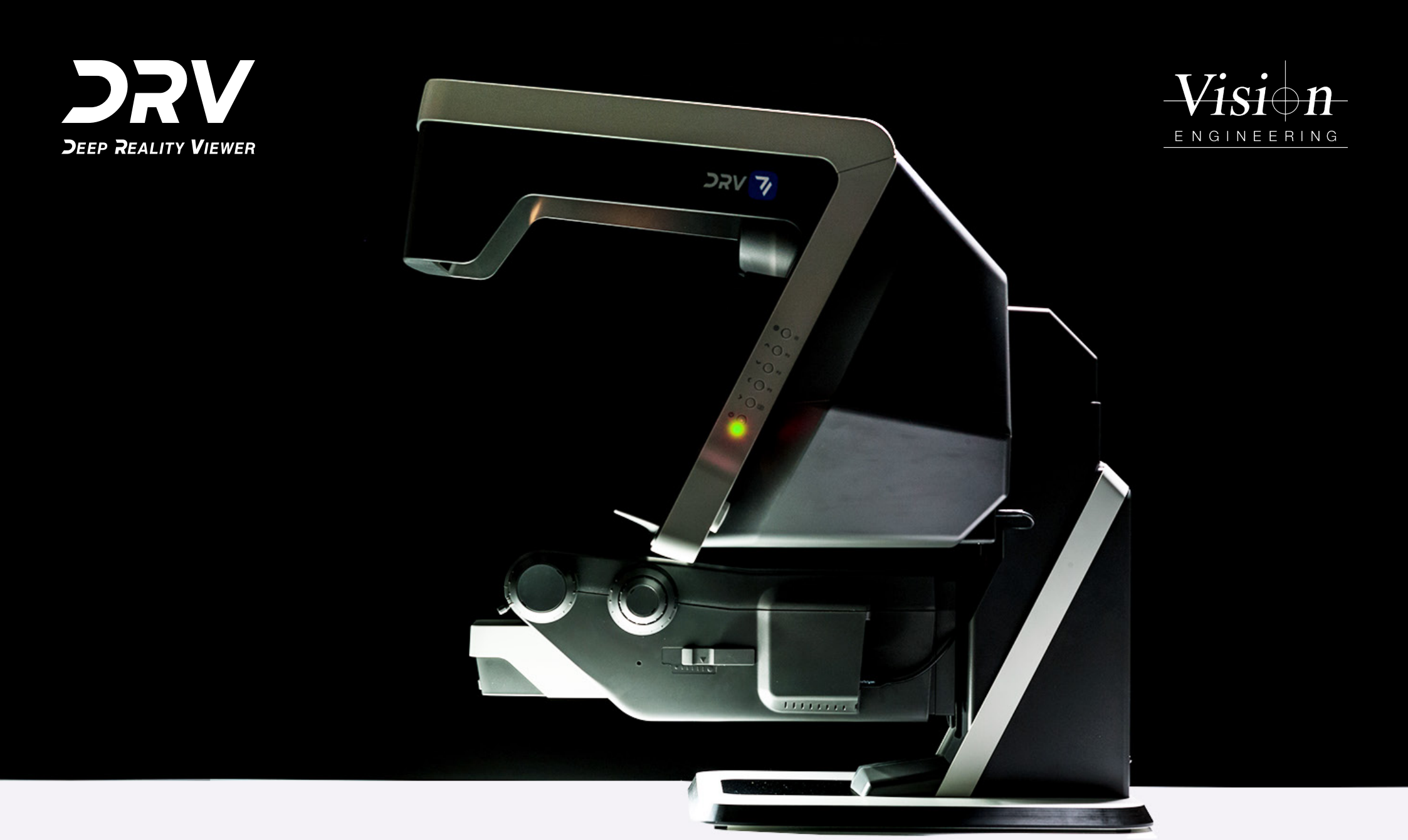
DRV

DEEP REALITY VIEWER

Vision ENGINEERING

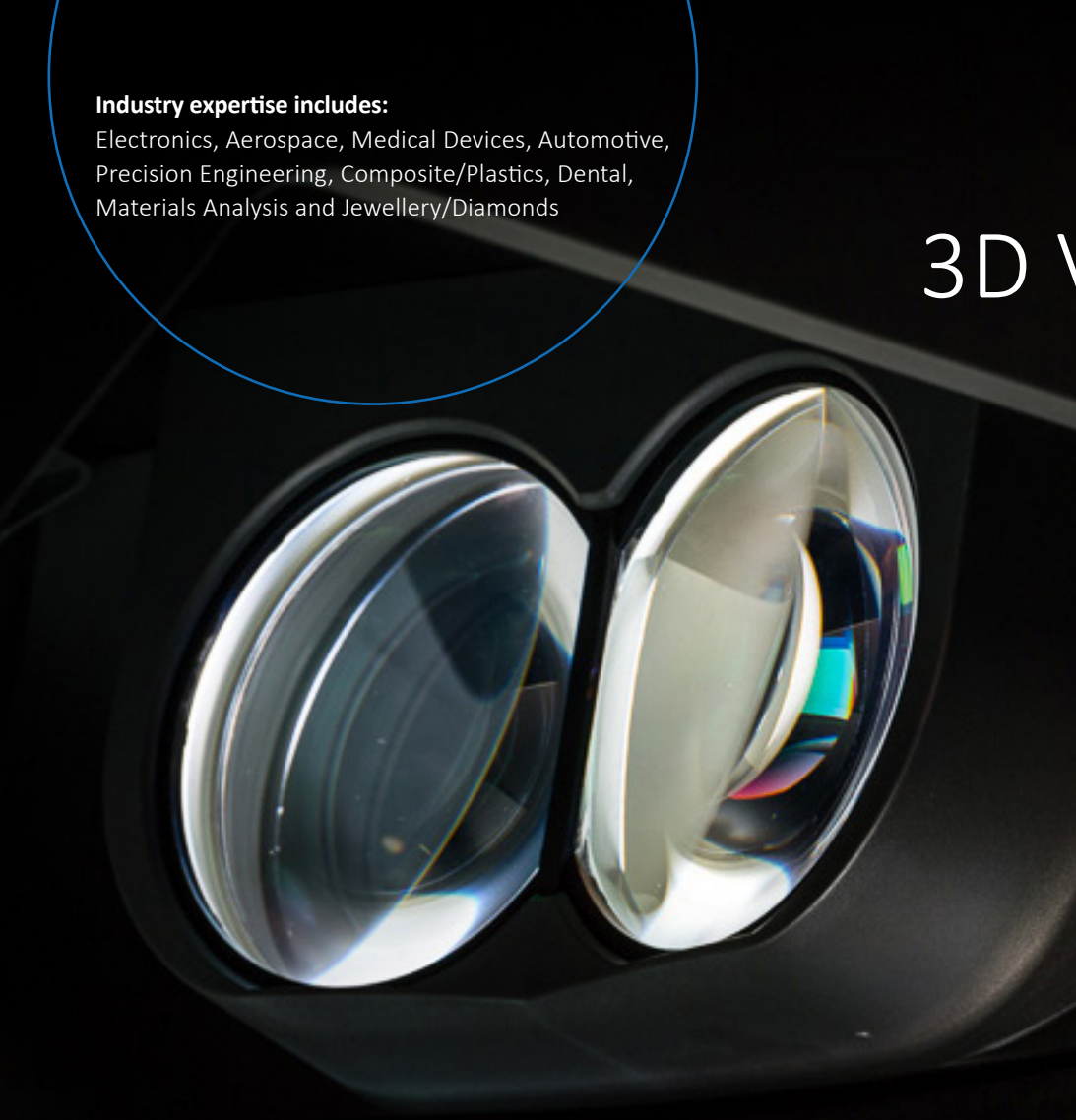


DRV-Z1

...Enter the third dimension - digital 3D magnification like never before!

Industry expertise includes:
Electronics, Aerospace, Medical Devices, Automotive, Precision Engineering, Composite/Plastics, Dental, Materials Analysis and Jewellery/Diamonds

3D VIEW - CAPTURE - SHARE



Specifically designed for inspection and manufacturing applications, DRV-Z1 is a digital stereo 3D viewer with zoom that brings together the benefits of optical stereo microscopy and digital technology into a single unique system.

For users, DRV-Z1's stereo digital image provides a natural 3D view, with full high definition (FHD) resolution and excellent subject clarity, enabling better quality inspection. For the first time in a digital system, real depth perception is created, supporting the use of tools in subject manipulation tasks such as soldering and reworking. Uniquely, the 3D FHD image is seen without the need for special glasses or headsets.

DRV-Z1's 'designed-in' ergonomic benefits, including freedom of head movement, natural subject view, comfortable working position, easy hand-to-eye co-ordination and ability to wear prescription glasses, if required, all contribute to improved efficiency, accuracy and productivity.

For organisations with a distributed office structure, or for customers whose supply chain network is geographically spread out, DRV-Z1's patented technology drives productivity improvement and new opportunities in collaboration through a unique combination of a natural, high clarity 3D image presentation, 3D image capture, and 3D image sharing to remote colleagues via real time digital connectivity.

The headset-free natural 'look in' design has the feel of a conventional monitor and caters for users' need to feel comfortable within their environment. Feelings of isolation and awkward on/off working is replaced with free moving interactions with colleagues and materials.

Award winning design:

Winner of the productronica innovation award 2019

inspect award 2020 winner

mesures PALMARES TECHNOLOGIQUE

Key features
- Digital stereo 3D with vivid depth perception
- 4 million pixel image
- Precision hand-to-eye co-ordination
- Improved comfort and productivity
- New real time collaboration opportunity

DEPTH PERCEPTION AND PRODUCTIVITY

DRV-Z1 digital stereo 3D image provides a comfortable and natural view, with excellent subject clarity.

Long working distance and wide zoom magnification suits a broad range of industrial applications.

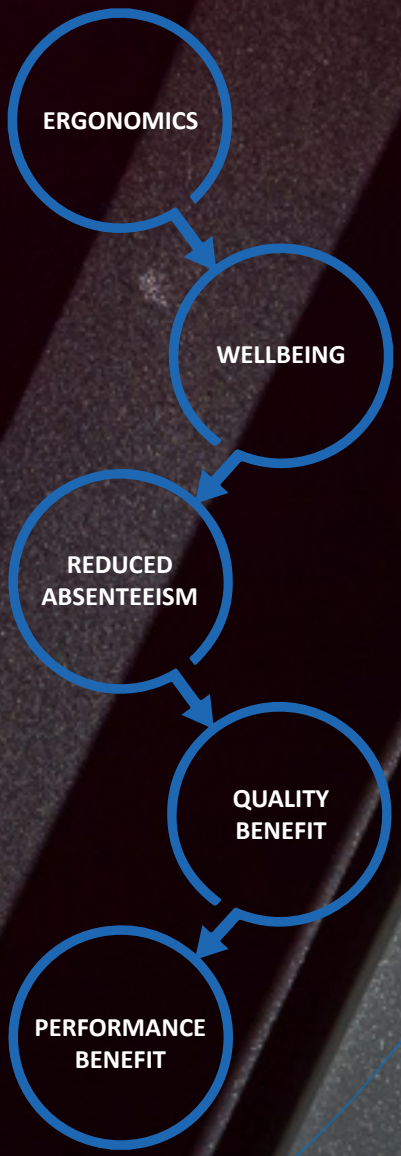
Excellent depth perception supports precise hand-to-eye co-ordination and the use of tools, improving productivity and work flows.

DRV-Z1's ergonomic design enables good posture and reduced fatigue, as the user sits upright, and makes genuine 3D detail accessible for all users.

DRV-Z1 requires minimal setup, and is remarkably easy to use with familiar controls designed specifically for efficiency and comfort in the working environment. This means very little training is required, and full user benefits are achieved quickly.

Deeper Understanding
In our three dimensional world, our eyes can easily be fooled when viewing two dimensional objects. When casually observed the Penrose triangle appears to be a three dimensional object. Only on closer inspection is it seen to be impossible.

By viewing and sharing images of 3D subjects in all three dimensions can the subject be confidently understood.



WHY ERGONOMICS IS IMPORTANT

Put simply, ergonomics is the science of designing environments and products to match the individuals who use them – thereby improving comfort and productivity in the work setting.

At Vision Engineering, our design philosophy centres on user ergonomics. It includes providing adjustability to accommodate posture for users of all sizes. In addition our products facilitate hand-to-eye co-ordination, improving operational efficiency and reducing error rates, and ultimately designing out the factors that can cause fatigue and longer-term occupational health issues.

We consider the individual's physiological interaction with the equipment required for microscopic analysis and manipulation in three key areas:

Freedom of head movement

Vision Engineering's patented digital technology doesn't restrict head movement, and so reduces short and long-term neck and back strain. DRV-Z1 takes this concept to a new level, increasing the freedom of head movement.

A natural view of the subject

DRV-Z1 delivers a widescreen digital stereo 3D image, enabling users to sit back from the viewer, providing a more natural view. DRV-Z1 delivers superb image quality, irrespective of whether the user wears prescription glasses or not.

Easy hand-eye-co-ordination

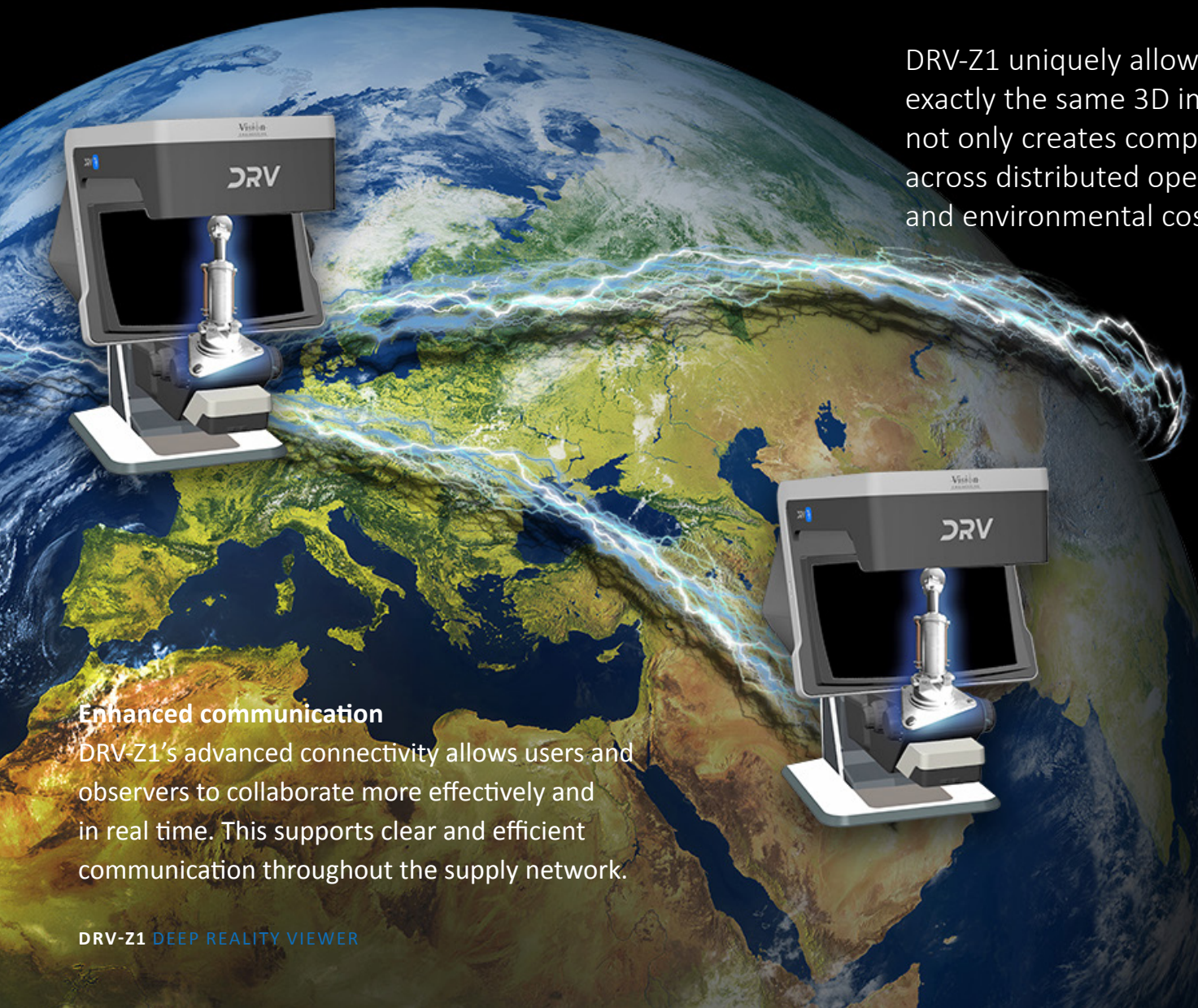
With Vision Engineering's patented 3D viewing technology, operators enjoy a peripheral vision that enhances natural hand-to-eye co-ordination, critical for precision inspection tasks, re-work, repair, dissection and other manipulation tasks.

Operator well-being

Safeguarding operator well-being leads to increased performance and reduces absenteeism due to illness and work related injury.

WORKING TOGETHER, BETTER FOR ALL

DRV-Z1 uniquely allows remote viewing, capture and sharing of exactly the same 3D images across networks in real-time. This not only creates completely new opportunities for collaboration across distributed operations, but reduces the time, financial and environmental cost of travel and shipping.



Enhanced communication

DRV-Z1's advanced connectivity allows users and observers to collaborate more effectively and in real time. This supports clear and efficient communication throughout the supply network.

Components, parts and products can be viewed in real-time between company departments, customers, manufacturers, designers and suppliers across organisational or even international networks.

DRV-Z1 enables faster and more accurate reporting, collaboration, consulting and supply approvals, contributing to faster, more informed decision making.

This new level of collaboration removes geographical barriers, enables innovative ways of working, and improves the efficiency and effectiveness of essential operational processes such as rapid prototyping and quality control.

Connectivity options include wired, closed organisation networks, or internet/WiFi.

DRV-Z1 also accepts multiple inputs to support wide-ranging applications, including microscopes, cameras, CAD and MRI/CT scans, as well as immersive animations and architectural walk-throughs.

TECHNICAL INFORMATION

DRV-Z1 is available with a range of bases and illumination options to suit your requirements, as follows:

DISPLAY HEAD	
Resolution	1920 x 1080 per channel
Image Size on concave mirror	400 x 225mm in 16:9 aspect ratio
Digital Zoom	2x
Working distance (maximum)	182mm

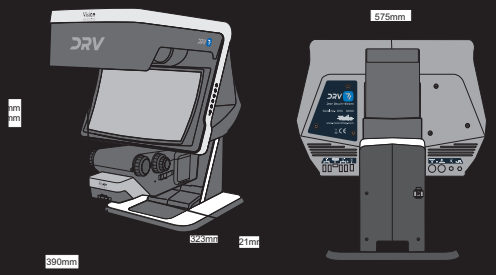
INPUTS	
Power Supply	100 - 240V AC 50 / 60Hz
Headphone Jack	3.5mm

OUTPUTS	
Image Capture	USB2
Video Capture	HDMI cables to an external video capture card
Connection to external mono monitor	HDMI
Connection to second or multiple DRV-Z1s	HDMI daisy chain / Wi-fi connection

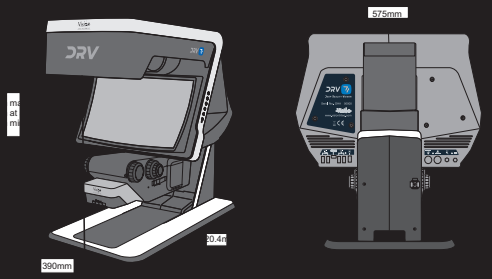
STAND	
Counterbalanced stand with 150mm vertical travel	
Fully adjustable sub-stage illumination	Optional

ZOOM MODULE
Module with 10:1 optical zoom and fully adjustable surface illumination

DRV-Z1 short base



DRV-Z1 Long base*



*sub-stage illumination is available as an option on the long base

WEIGHT	
Maximum System Weight	**45kgs**

DRV-Z1 optical data

Objective Lens	Zoom Range	Working Distance	Field of View at MAX. zoom	Field of View at MIN. zoom
0.33x	6.1x - 61x	182mm	6.5mm / 3.7mm	65mm / 37mm
0.4x	7.4x - 74x	138mm	5.4mm / 3.0mm	54mm / 30mm
0.5x	9.3x - 93x	93mm	4.3mm / 2.4mm	43mm / 24mm

Vision ENGINEERING

VISION ENGINEERING
OUR DIFFERENCE

Vision Engineering Ltd. has been designing and manufacturing high quality ergonomic microscopes, digital instruments, inspection and non-contact measuring systems for over 60 years.

Innovation

With a philosophy of design innovation, Vision Engineering holds world patents for a number of optical / digital techniques, significantly improving viewing ergonomics and enabling customer quality and productivity improvements.

Quality

Vision Engineering prides itself on quality products, electronics, mechanics and optics and is certified for the quality management system ISO 9001:2015. Quality is as important to us as it is to our customers. Our systems have proved themselves many times over and are chosen by the world's leading companies.

Global

Vision Engineering has manufacturing and design facilities in the UK and USA, plus sales and support offices throughout Europe, the Americas, the Far East, and Asia. We support our customers with close technical and service support anywhere in the world.

Please contact your Vision Engineering branch, local authorised distributor, or visit our website: **visioneng.com**

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FM 557119
Vision Engineering Ltd.
has been certified for the quality management system ISO 9001:2015.

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