Camera Comparison (08-07-2025):-

S. NO	Camera Model	Cost	Inbuilt Sensors	Advantages	Disadvantages	Max Depth	BlueOS Integration	Image Quality	Video Quality	Other Features	Stability & Streaming	Customizable lens	Audio	Power Consumption	Bandwidth	Interface	Mono/Stereo	
1	exploreHD 3.0 (400 m)	~$300 ≈ ₹25 000	Sony Exmor 1/2.9″ CMOS; rolling shutter	Compact & lightweight (84 g air); UVC plug-and-play; multi-camera streaming	Lower depth; rolling shutter; no titanium	400 m (IP69K)	Native plug-and-play; auto detection	HD 1080p; fish-eye lens; decent color fidelity	1080p@30 fps (H.264/MJPEG/YUY2)	IP69K, light weight; multi-camera via DWE OS	H.264 onboard; multi-stream up to 7 with low latency	Optional alternative lenses on request	No mic; video only	MJPEG ~0.9 W; H.264 ~1.2 W	USB 2.0 UVC high-speed; H.264 compression	USB 2.0 UVC	Mono	
2	exploreHD Heavy (1–2 km)	~$650 ≈ ₹54 000	Backside-illuminated Sony STARVIS BSI sensor	Much better low-light; sapphire lens; corrosion resistance; more depth	Heavier, higher cost	1,000–2,000 m (sapphire port)	Works with DWE OS & Multi-Stream via USB	Better dynamic range, low-light; sapphire clarity	Same formats, better clarity	Sapphire front, marine-grade alloy, better vision	Same + Multi-Stream support	Aquagon™ option available	No mic; video only	Likely ~1–2 W; more with sensor	Same	USB 2.0 UVC	Mono	
3	exploreHD Pro (6 km)	~$3 000 ≈ ₹250 000	Same BSI sensor, low-light optimized	Titanium DLC body; deep-sea rated; excellent image fidelity; full OS integration	Higher cost, power needs; niche depth	6,000 m, titanium + DLC	Full support via DWE OS; bitrate/exposure control	High fidelity, low noise; global quality tune-ins	Same + high bitrate controls	Titanium build, AR sapphire dome	Full OS Multi-Stream+IP via UDP	Aquagon support available	No mic; video only	Likely higher but unspecified	Same with bitrate control	USB 2.0 UVC	Mono	
4	exploreHD Challenger	~$4 300 ≈ ₹358 000	Same as Pro	Full-ocean-depth tested with certificate; most rugged, best low-light	Heaviest investment; overkill if <6 km not needed	11,000 m, full-ocean; certified cycle-tested	Same full OS & Multi-Stream support	Same high fidelity, optimized for extremes	Same	Special sapphire dome, certification	Same + Multi-Stream support	Aquagon support available	No mic; video only	Similar to Pro	Same	USB 2.0 UVC	Mono	
5	stellarHD (1000–2000 m)	₹65,000–₹80,000 (est.)	Global Shutter (frame-sync)	Fast, low-distortion; ideal for motion tracking	Mono only, no onboard AI	Up to 2000 m	Yes (USB UVC)	Sharp, blur-free	1080p @ 60 FPS	Frame sync, rugged	Excellent for ML/AI & Yes (UVC stream)	Yes	No mic; video only	~1.5–2.0 W	high-speed; H.264 compression	USB 2.0 UVC	Monocular	**Among Monocular, This can be choosen and can be ranked 3 among these.**
6	stellarHD Pro (6000 m)	₹2,25,000+ (est.)	Global Shutter (high SNR)	Deep-sea ready, excellent clarity	Expensive, heavier	Up to 6000 m	Yes	High clarity, low noise	1080p @ 60 FPS	Titanium housing, extreme durability	Superior temporal stability	Yes	No mic; video only	~2.5–3.0 W	high-speed; H.264 compression	USB 2.0 UVC	Monocular	
7	explore3D Stereo (1–11 km)	₹3,50,000+ (est.)	Dual Global Shutter + Sync	True stereo depth mapping; 3D reconstruction	Complex setup, higher processing needs	1000 m to 11,000 m	Yes	Depth-rich stereo output	1080p x2 @ 60 FPS	Stereo baseline tuning, global sync	Stereo time-locked & Dual-stream capable	Yes	No mic; video only	~4–5 W	Dual USB or GigE	USB/Ethernet	Stereo	**Best Feature Based Camera and ranked 2.**
9	OAK-D Lite	₹18,000 – ₹22,000¹	Stereo global-shutter (mono) + 13MP RGB (rolling)	Lightweight (61g), low-power, plug & play, good API	No IR/projector, less accurate in low light	0.2 m to 9 m	Yes (via USB + DepthAI + ROS supported)	13MP RGB with rolling shutter	4K @ 30fps / 1080p @ 60fps + depth @ 200fps	DepthAI-ready, UVC capable, USB 3.0 interface	Good for general depth sensing and AI on edge & Supported (USB + MJPEG/H.264/H.265)	Yes	Yes (standard mount support)	~2.5W (max 4.5W)	USB 3.0 (5–10 Gbps)	USB Type-C	Stereo (passive)	
10	OAK-D Pro	₹28,000 – ₹32,000¹	Stereo global-shutter + 12MP RGB + IMU + IR flood	IR dot projector for low-light, high-accuracy depth, onboard IMU	Higher power use, heavier (91g), costlier	0.7 m to 12 m	Yes (via USB + DepthAI + ROS + IR mapping)	12MP RGB with better optics and low-light support	4K @ 30fps / 1080p @ 60fps + depth @ 120fps	IR projector, IR flood, onboard IMU, better stereo sync	Excellent for SLAM, robotics, even in dark areas & Same, plus enhanced tracking in low-light	Yes	Yes (also wide FOV and custom variants available)	~3–7.5W (with IR on)	USB 3.0 (5–10 Gbps)	USB Type-C	Stereo + active (IR dot projector)	**Best Budget Camera and would be ranked 1.**