Name		iToF sensor	dToF sensor	Flash LIDAR	TSS LIDAR	Scanning LIDAR	FMCW LIDAR
System type	Measurement principle	iToF	dToF	dToF	dToF	dToF	FMCW
	Scanning architecture	Single emitter + detector array	Single emitter + detector array	Single emitter + detector array	Emitter array + detector array	Scanning mirror(s)	Scanning mirror(s)
	Optical aperture / power	Compact: short range, low power	Compact: short range, low power	Longer range: bulk optics & discretes	Longer range: bulk optics & discretes	Longer range: bulk optics & discretes	Longer range: bulk optics & discretes
Typical performance*	Range	<5m	<10m	<100m	<100m	~200m	~300m
	Resolution	Image sensor	<100 points	<100 points	<100 points	Scanning mirror dependent	Scanning mirror dependent
	Robustness	Crosstalk & multipath, ambient interference	Ambient interference	Ambient interference	Ambient interference	Ambient interference	Ambient immune
Example applications		3D depth camera	Auto-focus Touchless controls	Industrial robotics & automation	Industrial robotics & automation	Autonomous vehicles	Specialized high value applications
ams-OSRAM products		VCSELs	dToF modules VCSELs & VCSEL modules	VCSELs Edge Emitting Lasers	VCSELs Edge Emitting Lasers	VCSELs Edge Emitting Lasers	(Custom emitters)

Note: System types and parameters given for purposes of high-level comparison only.

Many range measurement systems exist in practice.

*Key:

Low	Medium	High