



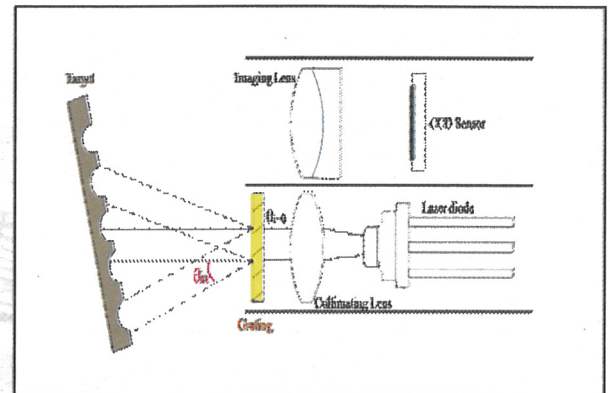
## Title of Invention

(Below is limited to 1-page only; be careful not to disclose vital technology content. Please delete these words when the document is finished)

**PI :** Prof. Yuan Luo  
 Institute of Medical Device and Imaging,  
 National Taiwan University

### Experience:

學校名稱	學位	起訖年月
College of Optical Sciences, University of Arizona	Ph. D	2004/08~2008/09
College of Optical Sciences, University of Arizona	M.S.	2004/08~2007/06



Affiliation	Title	Period
Current Position		
Institute of Medical Device and Imaging	Associate Professor	2015/08~present
曾任：		
Molecular Imaging Center	Division Chief	2012/01~2017/07
Opto-electronic Biomedical Research Center	Assistant Professor	2011/08~2015/07
Mechanical Engineering, MIT, USA	Postdoctoral Associate	2008/12~2011/07

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**Market Needs:**

The endoscope and car rear view camera is highly utilized in industrial inspection or consumer uses. It is import for an endoscopic product and car rear view camera to provide depth information of a target on the engine piston, turbine blade and objects behind the vehicle.

**Our Technology:**

A conventional endoscope and car rear view camera is capable of combining a camera with a diffractive optical element (DOE) and a laser light source. Since the measured distance is known by our DOE, the depth information of a specific target is obtained after acquired image is processed by our imaging processing algorithm based on acquired 2D object image.

**Strength:**

A cost-effective solution to the existent endoscope and car rear view camera with a few optical components adding into the endoscope and car rear view camera is capable of conducting the depth calculation of a target.

**Competing Products:**

GE Mentor Visual iQ™ VideoProbe™. Olympus LTF-190-10-3D ENDOEYE FLEX 3D

**Intellectual Properties:**

Based on our algorithm using a 2D pattern from diffractive optical element, depth information will be evaluated.

**Contact (do not need to fill out):**

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