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(54) Title: SYSTEM AND METHOD FOR STRUCTURED LIGHT ILLUMINATION WITH FRAME SUBWINDOWS

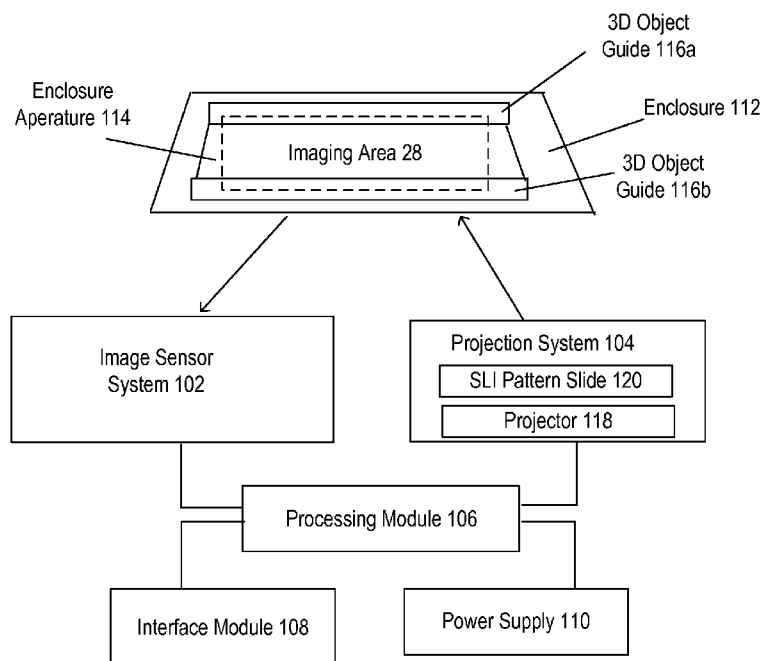


FIG. 6

(57) Abstract: A structured light imaging (SLI) system includes a projection system, image sensor system and processing module. The projection system is operable to project a single SLI pattern into an imaging area. The image sensor system is operable to capture images of a 3D object moving through the imaging area. The image sensor system outputs a subset of camera pixels corresponding to a subwindow of a camera frame to generate subwindow images. The processing module is operable to create a 3D surface map of the 3D object based on the subwindow images.



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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB,EPAB,JPAB); Google Patents, Google Scholar, Free Patents Online Search terms: structured light, projection, sensor, camera, processor, surface, map, frame, period, rate, image capture, motion, velocity, vector, pixel, sub-, image, window, set, phase, interval, PMP, correlation, LED, array, pulse		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2007/050776 A2 (Hassebrook et al.) 03 May 2007 (03.05.2007), Figs 2a, 2b, 7a, 11a, 11b, 12, 13; paras [008], [0033]-[0038], [0052], [0057], [0070]-[0072], [0084]	7, 8, 11
Y		4, 6, 9, 10, 12-16
Y	US 2007/0299338 A1 (Stevick et al.) 27 December 2007 (27.12.2007), Fig 4; paras [0012], [0071]	1-6
Y	US 5,155,775 A (Brown) 13 October 1992 (13.10.1992), Fig 4; col 4, ln 42 to col 5, ln 4	1-6
Y	US 2007/0273957 A1 (Zalevsky et al.) 29 November 2007 (29.11.2007), paras [0019], [0066]	9, 10
Y	US 2006/0098089 A1 (Sofer) 11 May 2006 (11.05.2006), Figs 2, 5; paras [0021], [0022], [0053], [0056], [0063]	5, 6, 12-16
Y	US 7,292,711 B2 (Kiraly et al.) 06 November 2007 (06.11.2007), Figs 1, 2, 7; col 4, ln 45-60; col 9, ln 1-29; col 12, ln 36 to col 13, ln 18	4, 16
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