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(21) International Application Number: PCT/US99/18847 (22) International Filing Date: 10 September 1999 (10.09.99) (30) Priority Data: 09/151,767 11 September 1998 (11.09.98) US (71) Applicant: ROBOTIC VISION SYSTEMS INC. [-/US]; 5 Shawmut Road, Canton, MA 02021 (US). (72) Inventors: STERN, Howard; 89 Derby Avenue, Greenlawn, NY 11740 (US). DOWLING, John, H.; 49 Windemere Way, Nashua, NH 03063 (US). (74) Agents: ROBINSON, Douglas, W. et al.; Hoffman, Wasson & Gitler, P.C., Suite 522, 2361 Jefferson Davis Highway, Arlington, VA 22202 (US).		(81) Designated States: AE, AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: METHOD OF OPERATING A CHARGE COUPLED DEVICE IN AN ACCELERATED MODE, AND IN CONJUNCTION WITH AN OPTICAL SYMBOLOGY IMAGER

(57) Abstract

A method of operating a charge coupled device in an accelerated mode is provided, and in particular in connection with an optical symbology imager (10), so as to minimize variations in the position of the imager relative to the code. The CCD (93) has two horizontal shift registers, each receiving every other scan line so that the output of each horizontal shift register equals the number of scan lines for normal television signals (262). The method skips through multiple lines of image data (fig. 22), then provides a black reference signal then images a series of lines at a slower speed, these lines being the lines of interest (fig. 23) for focusing and illumination operations in the optical symbology imager. Finally, the remaining lines are passed through quickly. The imager goes back into reset mode after either normal or fast mode operation, and is thereby immediately ready to perform another scan. The fast mode operation enables the imager to obtain the approximately ten lines of image data of concern in only approximately 5.5 milliseconds, a significant time savings. This operation can be performed for some or all of the multiple optical positions.

