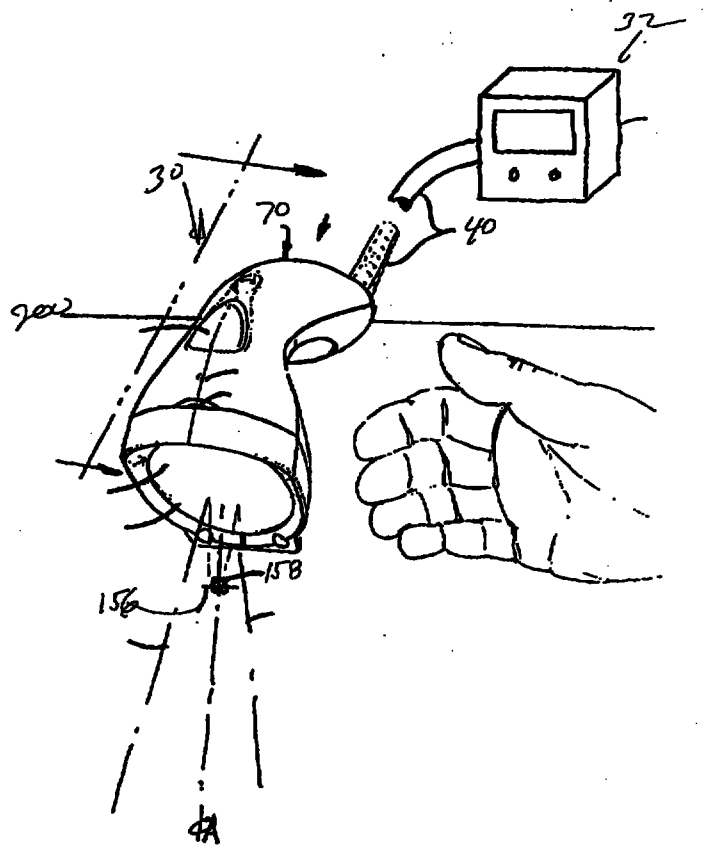


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(21) International Application Number: PCT/US99/18848 (22) International Filing Date: 10 September 1999 (10.09.99) (30) Priority Data: 09/151,766 11 September 1998 (11.09.98) US (71) Applicant: ROBOTIC VISION SYSTEMS INC. [-/US]; 5 Shawmut Road, Canton, MA 02021 (US). (72) Inventors: FANTONE, Stephen, D.; 340 Summer Street, Lynnfield, MA 01940 (US). IMRIE, David, A.; Townhouse No. 61, 111 Locust Street, Woburn, MA 01801 (US). PLUMMER, William, T.; 129 Arena Terrace, Concord, MA 01742 (US). VAN TASSELL, Jon, E.; 170 Bowdoin Street, Winthrop, MA 02152 (US). MCKINLEY, Philip, E.; 85 West Street, Westford, MA 01886 (US). MCKINLEY, Harry, R.; 58 Rattle Hill Road, Southampton, MA 01073 (US). FIGARELLA, Luis, A.; 27 Todd Road, Nashua, NH 03060 (US). STERN, Howard; 89 Derby Avenue, Greenlawn, NY 11740 (US). DOWLING, John, H.; 49 Windemere Way, Nashua, NH 03063 (US). MEISTER, Steve; 507 Brentwood Drive, Atlanta, GA 30305 (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 <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: SYMBOLOGY IMAGING AND READING APPARATUS AND METHOD		
(57) Abstract		
<p>Diffuse "dark field" illumination (90) and "bright field" illumination (162, 164) are each provided for a hand-held encoded symbology imager/reader; to be projected therefrom upon symbology disposed on a target (component part, goods, package, etc.). The imager/reader (30) is encased in a housing ergonomically configured to be gripped in more than one manner and to thus facilitate holding the imager/reader steady. The symbology to be imaged (40, 42, 44) is targeted by a line that not only spots the symbology, but by extending a length commensurate with that of the symbology, indicates that the symbology is in the field of view of the imager/reader. A CCD (252), disposed to receive light reflected from the symbology, has its readout controlled so that only selected portions of the CCD need to be analyzed for illumination and focusing purposes. To optimize imaging and decoding time, and to optimize use of power, readout from some portions of the CCD is accomplished in relatively rapid time by speeding up the readout of the CCD in some of its active area; while reverting back to a slower readout for data to be analyzed for illumination and focusing control and decoding purposes. In addition, special application of entropy principles facilitate determining the optimum focus and illumination conditions for the imager/reader.</p> <div data-bbox="798 1209 1516 2060">  </div>		