



(1) Publication number:

0 680 829 A3

### (12)

### **EUROPEAN PATENT APPLICATION**

(21) Application number: 95302418.9

2 Date of filing: 12.04.95

(i) Int. Cl.<sup>6</sup>: **B41J 13/00**, B41J 15/00, B41J 11/44, G05B 19/39

(30) Priority: 03.05.94 US 238079

Date of publication of application:08.11.95 Bulletin 95/45

Designated Contracting States:
DE FR GB IT

Date of deferred publication of the search report: 27.12.95 Bulletin 95/52

Applicant: Hewlett-Packard Company 3000 Hanover Street Palo Alto,

## California 94304 (US)

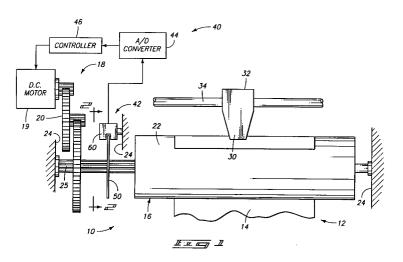
Inventor: Rice, Huston W. 6705 NE 126th Street Vancouver, WA 98680 (US) Inventor: Beretta, Robert K. 612 Cedar Street Vancouver, WA 98661 (US)

 Representative: Colgan, Stephen James et al CARPMAELS & RANSFORD
 43 Bloomsbury Square London WC1A 2RA (GB)

## 64 Optical control system for media handling assemblies in printers

© A media motion controller (46) for a printer (10) uses a low cost, low resolution optical encoder (such as an LED encoder) (60) which outputs an analog signal with a repeatable cycle indicative of media movement through the printer. An A/D converter (44) is connected to the optical encoder (60) to convert the analog signal into multiple discrete digital levels, where an increment of movement of the recording media (14) is defined as the movement during an

interval between a selected discrete digital level in one cycle to the same selected discrete digital level in the next cycle. A controller (46) is coupled to the A/D converter (44) to receive the discrete digital levels and controllably move the media (14) a selected number of movement increments as derived from recurrence of the selected discrete digital level during individual cycles.





# **EUROPEAN SEARCH REPORT**

Application Number EP 95 30 2418

Category	Citation of document with inc		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US-A-4 591 969 (BLOC	OM ET AL.) 27 May 1986 - column 5, line 55;	1,7,10	B41J13/00 B41J15/00 B41J11/44 G05B19/39
X	US-A-4 588 936 (ITOH * claims 1,2 *	I ET AL.) 13 May 1986	10	G03819/39
Υ	US-A-3 843 915 (HELM * column 1-2 *	HOLD) 22 October 1974	1,7,10	
Y	PATENT ABSTRACTS OF vol. 016 no. 504 (P-& JP-A-04 184217 (F 1992, * abstract *	1439) ,19 October 1992	1,7,10	
A	GB-A-2 136 733 (XERO 1984 * page 1, line 100-1	,	1,7,10	
A	EP-A-0 328 683 (FANU * column 3-7 *	 IC LTD.) 23 August 1989	1,7,10	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	EP-A-0 263 888 (FANU * page 3, line 24 -		1,7,10	B41J G05B G01D B43L
A	EP-A-0 535 932 (XERO	OX CORP.) 7 April 1993		H03M
	The present search report has be	en drawn up for all claims		
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	23 October 1995	Van	Oorschot, J
X : part Y : part doc	CATEGORY OF CITED DOCUMEN ticularly relevant if taken alone ticularly relevant if combined with anot ument of the same category anological background	E : earlier patent do after the filing d her D : document cited fi L : document cited fi	cument, but publi ate n the application or other reasons	ished on, or
	-written disclosure rmediate document	& : member of the sa		