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(54) **Title:** FIBER POSITIONING UNIT FOR TELESCOPES

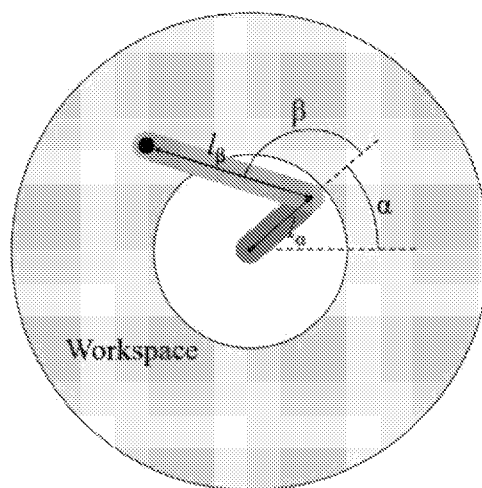


Figure 1

(57) **Abstract:** Fiber positioning unit of SCARA type comprising an alpha (1,2,3) and a beta mechanism (4,5); the alpha mechanism successively comprising a motor (1), a driving shaft (2) and a rotatable shaft (3), the rotation of the rotatable shaft (3) being carried out by the alpha motor (1) via the driving shaft (2); the beta mechanism comprising a motor (4) and a fiber holding element (5) that may be rotated by the beta motor (4); both mechanisms being mechanically connected in a way to allow a rotation of the beta mechanism (4,5) by the rotatable shaft (3); the alpha mechanism (1,2,3) being furthermore adapted to be partially located within a focal plate (6), characterized by the fact that the alpha motor (1) is adapted to be located on one side of the focal plate (6) while the rotatable shaft (3) and the beta mechanism (4,5) are adapted to be located on the other side of the focal plate (6).



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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
G02B G01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MONTGOMERY DAVID ET AL: "Development of the fibre positioning unit of MOONS", PROCEEDINGS OF SPIE; [PROCEEDINGS OF SPIE ISSN 0277-786X VOLUME 10524], SPIE, US, vol. 9908, 4 August 2016 (2016-08-04), pages 990895-990895, XP060077485, DOI: 10.1117/12.2234183 ISBN: 978-1-5106-1533-5	1, 2, 4-9
Y	page 6; figures 4, 1 page 7 figure 6 page 4, paragraph 2 2.8 Gearmotors; page 8; figure 14	3
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Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Jones, Julian
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>Charles Fisher ET AL: "Cobra: A Two-Degree of Freedom Fiber Optic Positioning Mechanism TABLE OF CONTENTS", Aerospace conference, 2009 IEEE, 5 January 2009 (2009-01-05), XP055351575, DOI: 10.1109/AERO.2009.4839435 Retrieved from the Internet: URL:http://ieeexplore.ieee.org/ielx5/4813823/4839294/04839435.pdf?tp=&arnumber=4839435&isnumber=4839294 [retrieved on 2017-03-03] section Cobra motors Version 2.; page 5, column 2</p> <p style="text-align: center;">-----</p>	3