



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : <b>B08B 3/02</b></p>	<p><b>A3</b></p>	<p>(11) International Publication Number: <b>WO 98/08612</b></p> <p>(43) International Publication Date: 5 March 1998 (05.03.98)</p>					
<p>(21) International Application Number: PCT/US97/14643</p> <p>(22) International Filing Date: 29 August 1997 (29.08.97)</p> <p>(30) Priority Data:</p> <table border="0"> <tr> <td>60/024,914</td> <td>30 August 1996 (30.08.96)</td> <td>US</td> </tr> <tr> <td>60/032,706</td> <td>12 December 1996 (12.12.96)</td> <td>US</td> </tr> </table> <p>(71) Applicant: SKY ROBOTICS, INC. [US/US]; 1759 Selby Avenue, St. Paul, MN 55104 (US).</p> <p>(72) Inventor: LANGE, Michael, R.; 250 Carlson Parkway #106, Minnetonka, MN 55305 (US).</p> <p>(74) Agents: SULLIVAN, Gerald, H. et al.; Dorsey &amp; Whitney LLP, Pillsbury Center South, Suite 1700, 220 South 6th Street, Minneapolis, MN 55402 (US).</p>	60/024,914	30 August 1996 (30.08.96)	US	60/032,706	12 December 1996 (12.12.96)	US	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>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.</i></p> <p>(88) Date of publication of the international search report: 30 April 1998 (30.04.98)</p>
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<p>(54) Title: APPARATUS AND METHOD FOR APPLYING FLUIDS TO VERTICAL SURFACES</p>							
<p>(57) Abstract</p>							
<p>The present invention relates to an apparatus (10) for performing nonmanual tasks on and adjacent vertical or nearly vertical surfaces. The apparatus (10) is designed so that a portion of the apparatus can traverse the vertical or nearly vertical surfaces of structures (11) which may include obstacles such as window frames or gaps created by window seams, without coming into physical contact with those surfaces. The apparatus (10) includes a bottom control unit (16), a vehicle (12) for traversing the vertical or nearly vertical surfaces, and a top control unit (14). The vehicle (12) is maintained in a near constant spaced relationship to the vertical surfaces by flexible members (35) that connect the vehicle (12) to the top control unit (14) and bottom control unit (16).</p>							

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INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US97/14643

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(6) :BO8B 3/02 US CL :134/172 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 134/172, 180 181, 174, 176, 173, 174, 198, 18, 34, 42; 1550.1, 302; 114/222 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) NONE		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3,056,153 A (LAUGHTER, SR.) 02 OCTOBER 1962, see columns 1-4.	1-17
A	US 3,454,976 A (KIJINSKI) 15 JULY 1969.	1-17
Y	US 3,646,630 A (RUSSELL) 07 MARCH 1972, see columns 1-10.	1-17
Y	US 3,863,393 A (GOFF) 04 FEBRUARY 1975, see columns 1-10.	1-17
Y	US 3,984,944 A (MAASBERG ET AL.) 12 OCTOBER 1976, see columns 1-6.	1-17
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Date of the actual completion of the international search 02 DECEMBER 1997		Date of mailing of the international search report 05 MAR 1998
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer <i>J. Hurley</i> FRANKIE L. STINSON Telephone No. (703) 308-0861

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PCT/US97/14643

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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