Title: DUAL AXIS HINGE FOR HANDHELD DEVICE

Abstract: The invention provides a dual axis hinge for handheld devices. A preferred embodiment is a self-contained hinge that provides controlled rotation about two axes, e.g., perpendicular x- and y-axes. Controlled rotation about an x-axis includes fully open and closed biased positions, and also preferably provides self-open and/or self-close assistance when predetermined rotational points about the x-axis are reached. Controlled rotation about a y-axis provides a bias position, e.g., $0^\circ$. Additionally, in the preferred embodiment both negative and positive rotation about the y-axis are permitted, and hard stops are defined at limits of negative and positive rotation. In a preferred embodiment hinge, a unitary body supports x-axis and y-axis rotational control sub-assemblies. The main body is preferably substantially hollow, with bores that provide a path through which wiring, e.g., flex circuit, may be routed through. Embodiments of the invention also provide hinges with low part counts, e.g. dual axis hinges with 8-10 parts.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC: H04B 1/38 (2006.01)

USPC: 455/575.3, 575.1
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)
U.S.: 455/575.3, 575.1, 575.8

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<tr>
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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>Y</td>
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<td>A</td>
<td>US 6,549,789 B1 (Kfoury) 4 April 2003 (04.04.2003), Column 6, lines 30-45</td>
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<tr>
<td>A</td>
<td>US 5,016,849 (Wu) 21 May 1991 (21.05.1991), Column 1, lines 21-45</td>
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☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

Date of the actual completion of the international search
14 March 2006 (14.03.2006)

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