Title (en)
### A FLYING TOY SUPPORTED BY A BIROTOR WHOSE BLADES ARE PARTIALLY FLEXIBLE

Title (de)
### FLUGSPIELZEUG MIT EINEM BIROTOR MIT TEILWEISE FLEXIBLEN ROTORBLÄTTERN

Title (fr)
### JOUET VOLANT SOUTENU PAR UN BIROTOR DONT LES PALES SONT PARTIELLEMENT FLEXIBLES

Publication
**EP 2032225 A1 20090311 (EN)**

Application
**EP 07764834 A 20070620**

Priority
- EP 2007005605 W 20070620
- IT TO20060459 A 20060623

Abstract (en)
[origin: WO2007147639A1] A flying toy suitable for being raised and then maintained in flight by the wind action, and controlled and maneuvered by means of an anchorage cable in a manner similar to that of a kite, that is provided with a birotor (1-6), and wherein the blades (1-4) of each rotor are partially flexible. The birotor is composed of two superimposed and coaxial rotors (1-6) and a synchronization mechanism (13) which obliges said rotors to effect symmetrical counter-rotations. Each blade (1-4) of each rotor comprises a substantially rigid proximal portion (1 ) whose cross section has the shape and the inclination incidence suggested by the laws of the aerodynamic, and comprises a distal portion (3) having a noticeable capability of undergoing flexional deformations. The flexible distal portion (3) may have a cross section identical or similar to the cross section of the rigid proximal portion (1 ), or a cross section simplified with respect to the rigid proximal portion (1). The flexible distal portion (3) may form an extension of the rigid proximal portion (1 ) or be pivoted to the rigid proximal portion (1 ) around an axis (4) at least approximately parallel to the rotor axis, whereby the distal portion (3) of the blade can orientate itself with respect to the proximal portion (1 ).

IPC 8 full level
**A63H 27/04** (2006.01)

CPC (source: EP US)
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DOCDB simple family (publication)
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