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## A SHEET OF SOFT MATERIAL IS UTILIZED AS LIVING HINGE, WITHOUT ADDITIONAL MECHANISM WHERE REQUIRES ROTATION FUNCTION

HP INC

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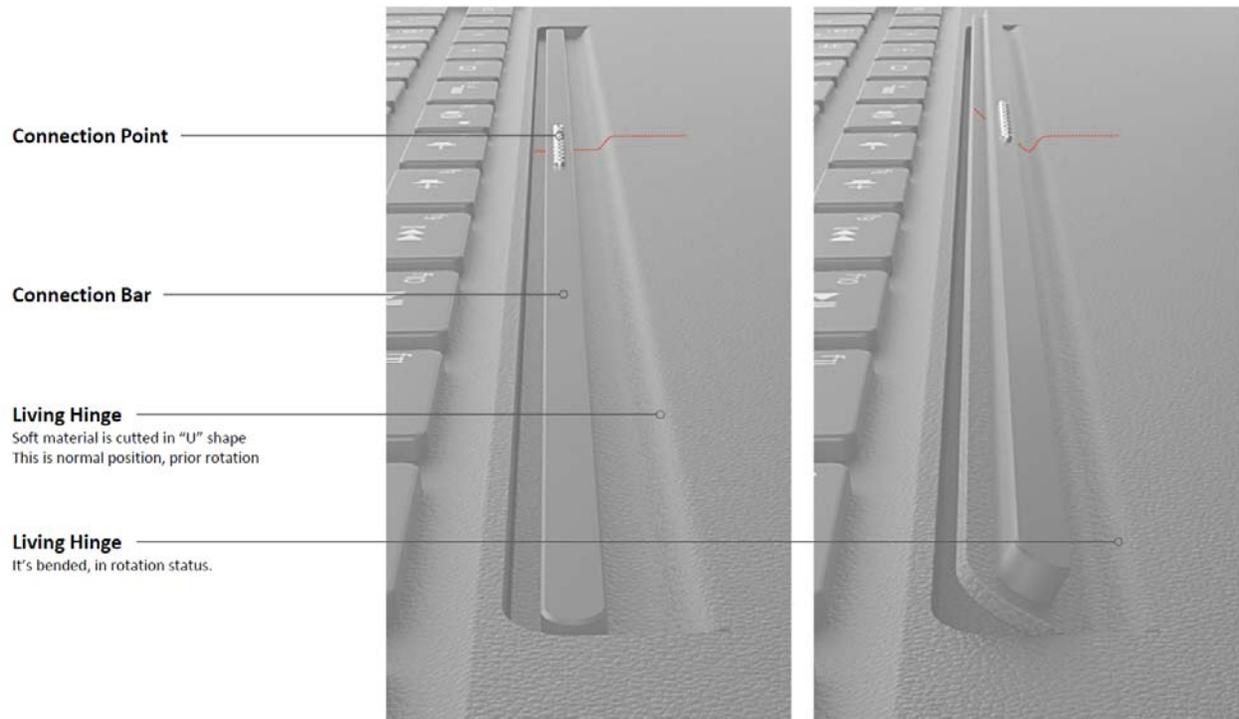
**Title: A sheet of soft material is utilized as living hinge, without additional mechanism where requires rotation function.**

This disclosure relates to detachable notebook, it has softcover to provide the input (keyboard and touch pad) function and protection function. In order to communicate signal between slate to softcover, it needs a connection point located in both devices. The connection point in softcover is required to rotate according to slate's tilting angle. Therefore, the connection point can be connected all the time no matter how it rotates. Usually, a simple hinge mechanism is designed to offer the rotation ability. In this disclose, it eliminates the conventional mechanical hinge structure, but still able to provide the rotation ability, by utilizing the exterior enclosure soft material. It's simply cut in "U" shape in certain place, the remaining connecting edge become the rotation function provider. Which is called "Living Hinge" in this case.

In most recent detachable notebooks, the soft cover has included keyboard and touchpad for input purpose. Therefore, the soft cover needs connection point to communicate the input signal to slate. To correspond the slate view angle adjustment, the connection point should also rotate accordingly. That makes both slate and connection point rotate together, and always connected to each other without signal miscommunication. In this disclosure, it utilizes the soft cover material as rotation hinge instead of conventional mechanism. That eliminates the additional weight added from mechanism, as well as simplify the structure for better manufacturing ability and better user experience.

A program that is disclosed with such idea developed during its development phase. When we noticed the soft cover material can be utilized as a living hinge, given the material flexibility characteristic. By utilize this material for the function, it's executed in following methods.

- (1) The softcover itself is formed by a sheet of soft material.
- (2) The soft sheet is cut in "U" shape surrounding the connection point, only remain one side connecting with rest of sheet.
- (3) The remaining side is bendable, where offers the rotation function by the nature of material characteristic.



*Disclosed by Meng-Tse Tsai, Philip Moon and Ilchan Lee, HP Inc.*