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SCREW LESS D COVER AND ALIGNMENT

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Screw less D cover and alignment

Abstract

As premium products target at high end customer and become more popular, the cosmetic gap between D-Cover and C-Cover is drawing more attention. This patent is to Utilize the magnet array to well-control the gap in 4 sides. The magnets could also play as the lock mechanism between LCD and system.

Problem solved

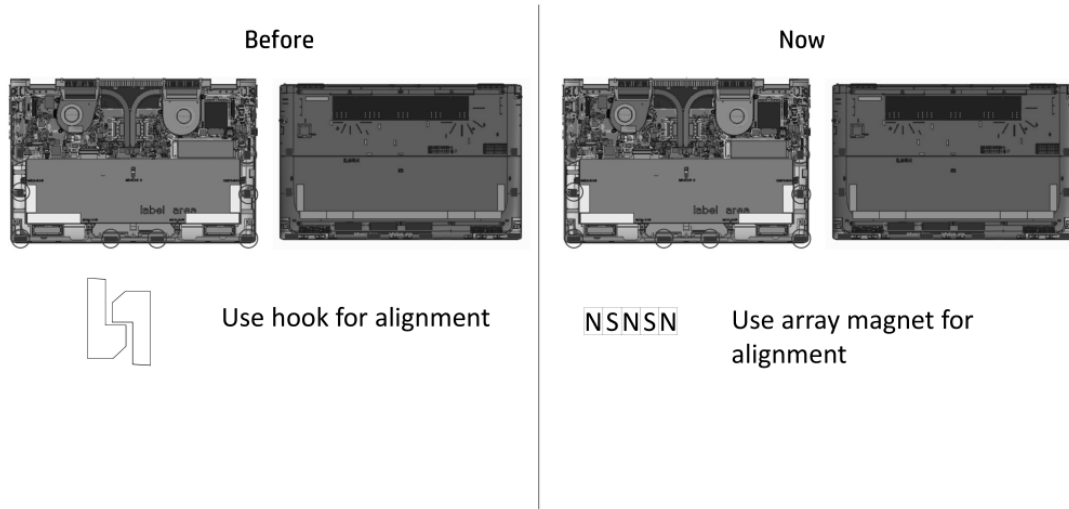
The magnets could design solves following scenarios:

1. The gap 4 sides between C Cover and D-Cover could be well-controlled
2. No screw design at back give ID a clean image
3. Easily to assemble / disassemble D-Cover from C-Cover without compromising hook features
4. Easily to assemble / disassemble D-Cover from C-Cover without hooks damaging ID chassis

Prior solutions

In our previous platform, the D-Cover and C-Cover is used hook to attach together. This is so called traditional way to link chassis. The hook alignment would generate many side-effects, such as hook damaged, cosmetic misalignment and step ID imperfection.

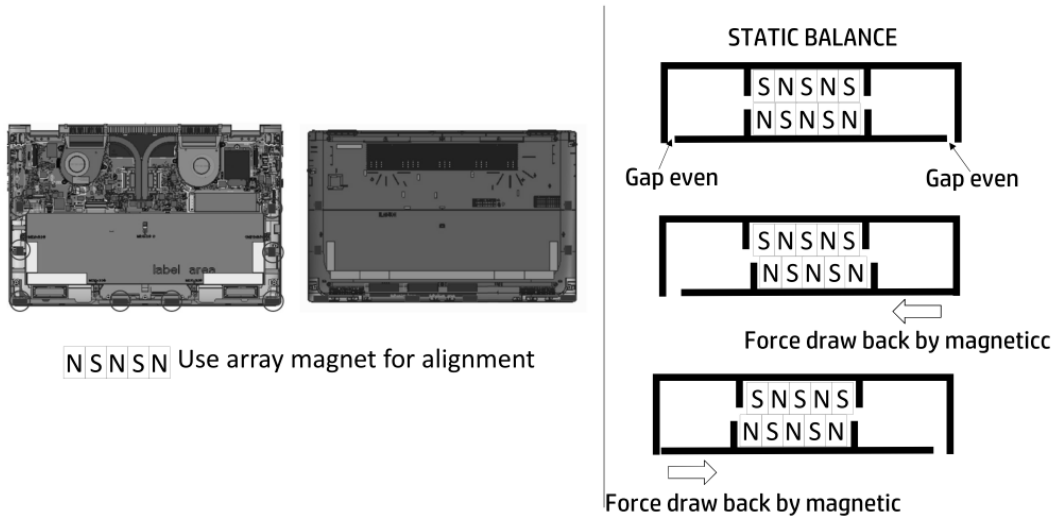
Prior Solutions



Description

The improved solution would be we using the magnet to attach C-Cover and D-Cover. With the array magnet to be assembled, the gap misalignment would be auto corrected by the magnet force that pulls. This could be easily assembled or disassembled without having the side effect of hook method. Following is illustration.

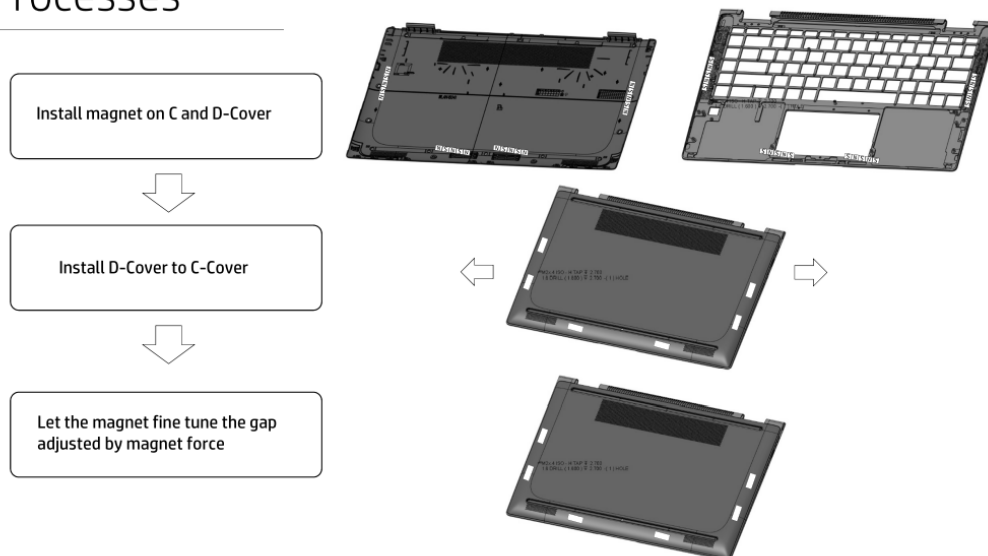
Example of Design Feature and Drawing



Process

A simple flow chart is explained below. To install magnets first then take the D-cover onto C-Cover, the assembly result would be easily done by the effect of magnet.

Processes



Advantages

1. The gap 4 sides between C Cover and D-Cover could be well control
2. No screw design at back give ID a clean image
3. Easily to assemble / disassemble D-Cover from C-Cover without compromising hook features
4. Easily to assemble / disassemble D-Cover from C-Cover without hooks damaging ID chassis

Disclosed by Chi-Chih Huang, Weiming Tseng, Jovi Chu, Wei-Renn Chen and David So, HP Inc.