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CAMERA PRIVACY SLIDER SHUTTER DESIGN

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Camera privacy slider shutter design

New design concept for Camera privacy slider shutter which will improve customer experience in use; User will be feeling smoother on movement of the shutter.

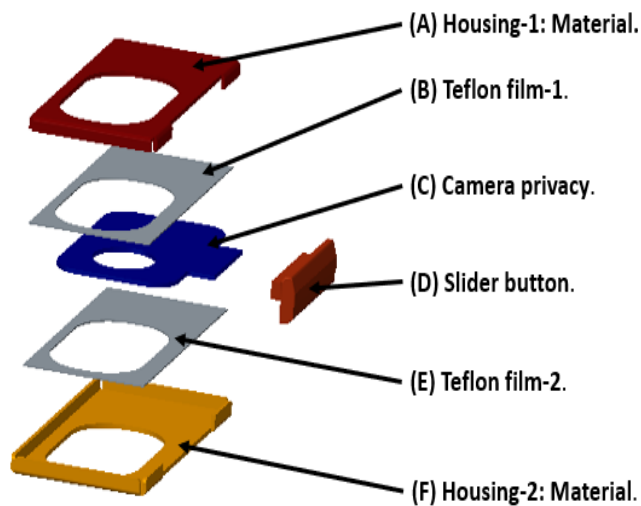
By using this Camera privacy slider shutter module design, you will;

- 1) Good customer experience in use.
- 2) Slide force stable, no user force decrease / increase issue after using long times.
- 3) Leverage the same camera privacy slider shutter module on similar size product, there is good cost benefit.

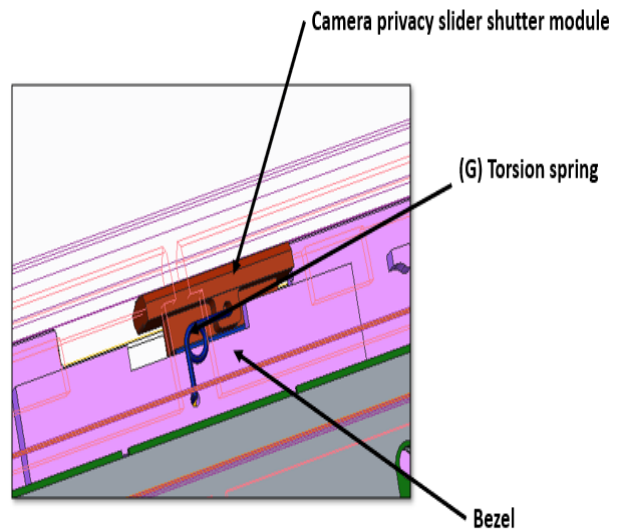
New Camera privacy slider shutter module solution:

- Concept:

- Camera privacy slider shutter module



- Camera privacy slider shutter module + torsion spring



(A) Housing-1: Material → 0.3mm SUS.

(B) Teflon film-1: to make sure (C) camera privacy film sliding smooth.

(C) Camera privacy film: to cover or uncover camera lens.

(D) Slider button: for user open / close camera lens.

(E) Teflon film-2: to make sure (C) camera privacy film sliding smooth.

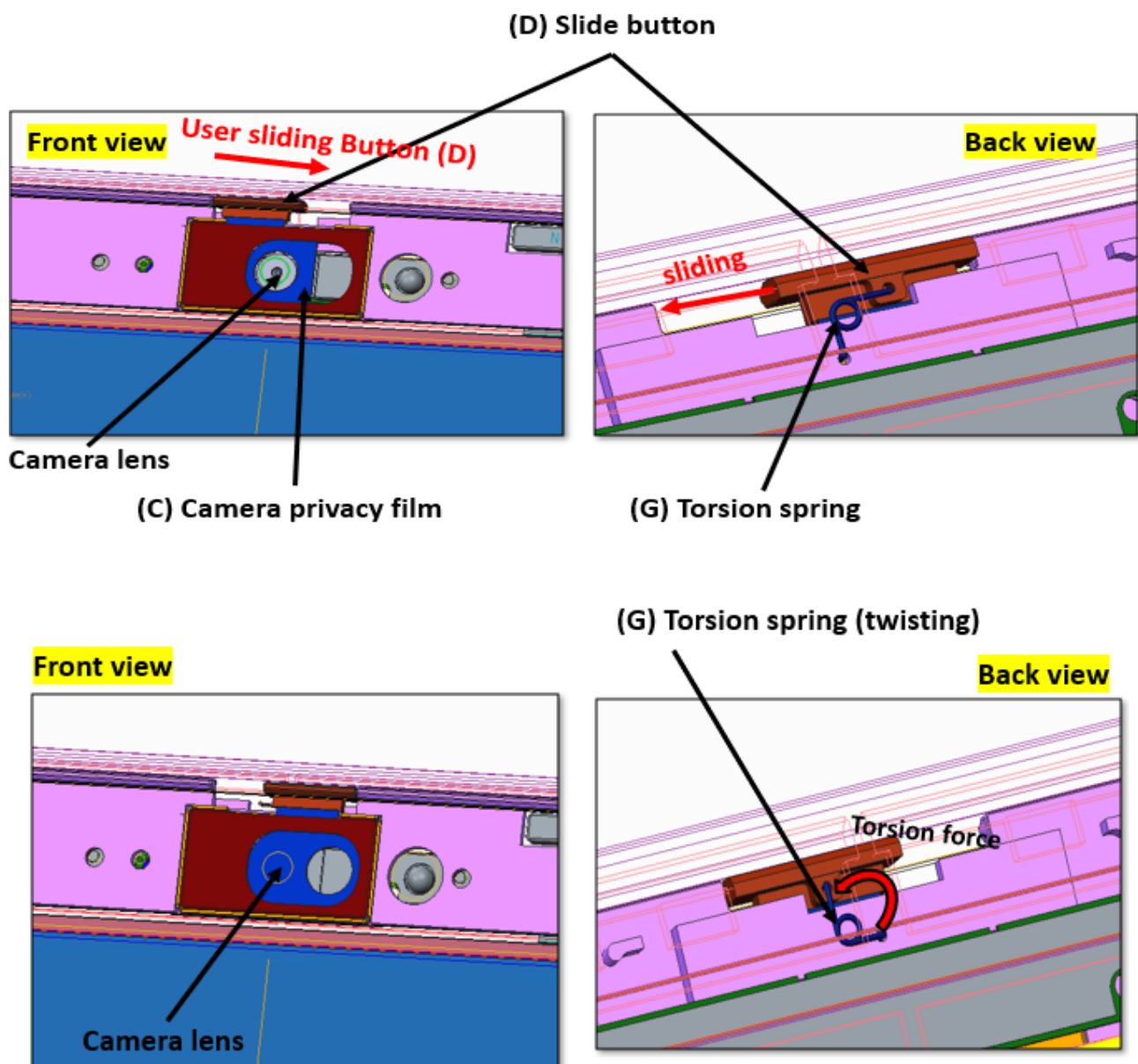
(F) Housing-2: Material → 0.3mm SUS.

(G) Torsion spring: to bring shutter stay at lock position or provide one force for shutter in sliding process.

● Operating principles:

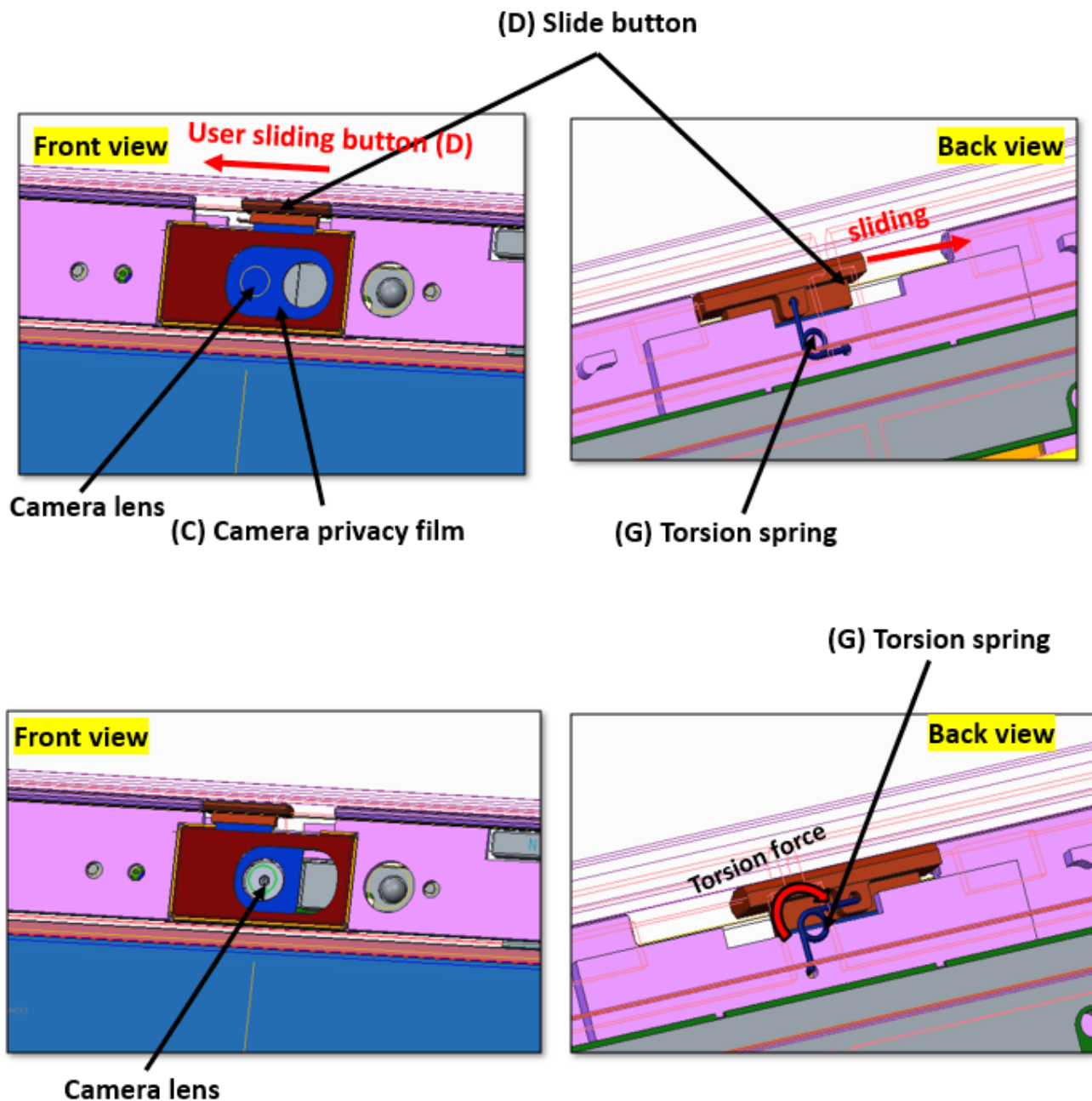
1) Cover camera process:

- Camera lens stays at open position.
- User sliding Button (D).
- Button (D) is pulling Camera privacy film (C) and twisting Torsion spring (G).
- Button (D) is moving to middle of slide stroke.
- Torsion spring (G) has been twisted.
- User releases button (D) when button has passed out the midpoint of slide stroke.
- Torsion spring (G) exerts a torque in the opposite direction.
- Torsion spring (G) pulling Button (D) and Camera privacy film (C) to move to lock position.
- Camera lens has been covered.



2) Uncover camera process:

- Camera lens stays at close position.
- User sliding Button (D).
- Button (D) is pulling Camera privacy film (C) and twisting Torsion spring (G).
- Button (D) is moving to middle of slide stroke.
- Torsion spring (G) has been twisted.
- User releases button (D) when button has passed out the midpoint of slide stroke.
- Torsion spring (G) exerts a torque in the opposite direction.
- Torsion spring (G) pulling Button (D) and Camera privacy film (C) to move to un-lock position.
- Camera lens has been uncovered.



Disclosed by Ben Chuang, Kun-Hung Kin and Edward Chen, HP Inc.