What is claimed is :

1. An apparatus comprising:

a housing;

a tip configured to move with respect to the housing based on contact force applied to the tip; and

a pressure sensor configured to detect force applied on the tip based on movement of the tip, wherein the sensor includes:

a first element integrated or fixed to the tip, wherein the first element is formed from a rigid material that is conductive;

a second element that is stationary with respect to the housing and positioned to face the first element, wherein the second element is conductive and has elastic properties,

wherein one of the first element or the second element is coated with a non-conductive layer between 10nm and 20 μm thick, and wherein the first element is configured to move toward the second element based on force applied on the tip to deform the second element based on the force; and

a circuit configured to detect capacitance between the first element and the second element.

2. The apparatus according to claim 1, wherein the first element is dome shaped or coned shaped.

3. The apparatus according to claim 1, wherein the second element is an elastomer.

4. The apparatus according to claim 1, wherein the second element has a flat shape.

5. The apparatus according to claim 1, wherein the non-conductive layer includes a texture configured to reduce adhesion between the first element and the second element.

6. The apparatus according to claim 1, wherein the first element is formed from metal and the non-conductive layer is anodized layer formed on the metal.

7. The apparatus according to claim 1, wherein the non-conductive layer is a silicon layer applied on the second element.

8. The apparatus according to claim 1, further comprising an elastic element mechanically coupled to the housing and the tip, wherein the elastic element is configured to provide a pre-load force on the tip

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9. A stylus comprising :

a housing;

a writing tip configured to move with respect to the housing based on contact force applied the writing tip ;

and

a pressure sensor configured to detect force applied on the writing tip based on movement of the writing up, wherein the sensor includes :

a first element configured to move together with the writing tip, wherein the first element is formed from a rigid material that is conductive;

a second element that is stationary with respect to the housing and positioned to face the first element, wherein the second element is a conductive elastomer,

wherein one of the first element or the second element is coated with a non-conductive layer between 10 nm and 20 μm thick, and wherein the first element is configured to move toward the second element based on force applied on the tip deform the second element based on the force; and

a circuit configured to detect capacitance between the first element and the second element.

10. The stylus according to claim 9, wherein the first element is dome shaped or cone shaped.

11 The stylus according to claim 9, wherein the writing tip is an elongated element including a first end configured to extend out of the housing and a second end maintained in the housing, wherein the second end includes the first element.

12. The stylus according to claim 11 wherein the writing tip is machined from metal.

13. The stylus according to claim 11 wherein the writing tip is molded with conductive plastic.

14. The stylus according to claim 9, further comprising a tip holder, wherein the writing tip is an elongated element including a first end configured to extend out of the housing and a second end maintained in the housing and wherein the tip holder is connected to the second end of the writing tip and includes the first element.

15. The stylus according to claim 9, wherein the second element has a flat shape.

16. The stylus according to claim 9, wherein the non-conductive layer is patterned with a defined texture.

17. The stylus according to claim 9, further comprising spring mechanically coupled to the housing and the writing tip, wherein the spring is configured to provide a pre-load force on the writing tip.

18. A system, comprising :

a computing device comprising a touch screen; and

a stylus comprising :

a housing;

a writing tip configured to move with regards to the housing based on contact force applied the writing tip; and

a pressure sensor configured to detect force applied on the writing tip based on movement of the writing tip, wherein the sensor includes :

a first element configured to move together with the writing tip, wherein the first element is formed from a rigid material that is conductive;

a second element that is stationary with respect to the housing and positioned to face the first element, wherein the second element is a conductive elastomer;

wherein one of the first element or the second element is coated with a non-conductive layer between 10 nm and 20 μm thick, and wherein the first element is configured to move toward the second element based on force applied on the tip to deform the second element based on the force;

and

a circuit configured to detect capacitance between the first element and the second element.

19. The system according to claim 18, wherein the non-conductive layer is a silicon layer applied on the second element.

20. The system according to claim 18, wherein the first element is dome shaped or cone shaped.