We claim:

1. A capacitive touch sensor (100), comprising:

an electrode (110) disposed between a plate (120) and a spring (130) wherein the spring (130) presses the electrode (110) against the plate (120) in a direction that is substantially parallel to a longitudinal length (L) of the spring (130) and the electrode (110) has a flat sensing surface (112) parallel with the plate (120), wherein:

the electrode (110) interfaces with a panel (150) that prevents movement of the electrode (110) relative to the plate (120).

2. The capacitive touch sensor (100) of claim 1, wherein the electrode (110) further comprises an extending portion (114) that extends away from the sensing surface (112).

3. The capacitive touch sensor (100) of claim 2, wherein the extending portion (114) interfaces with the panel (150) that prevents the movement of the electrode (110) relative to the plate (120).

4. The capacitive touch sensor (100) of claim 2, wherein the extending portion (114) interfaces with the spring (130) to prevent a movement of the electrode (110) relative to the spring (130).

5. The capacitive touch sensor (100) of claim 1, wherein the spring (130) comprises a first distal portion (134) that presses the electrode (110) towards the plate (120) and a second distal portion (132) that is coupled to a circuit board (140).

6. The capacitive touch sensor (100) of claim 5, wherein the first distal portion (134) is comprised of an inverse cone region that presses against the electrode (110).

7. The capacitive touch sensor (100) of claim 5, wherein the spring (130) comprises a conductor that electrically couples the electrode (110) with the circuit board (140).

8. The capacitive touch sensor (100) of claim 5, wherein the spring (130) holds the electrode (110) spaced apart from the circuit board (140).

9. The capacitive touch sensor (100) of claim 1, wherein the spring (130) is a coil spring with the longitudinal length (L).

10. A method of forming a capacitive touch sensor (100), comprising:

forming a plate (120);

forming a spring (130) having a longitudinal length (L); and

forming and disposing an electrode (110) between the plate (120) and the spring (130) wherein the spring (130) presses the electrode (110) against the plate (120) in a direction that is substantially parallel to a longitudinal length (L) of the spring (130) and the electrode (110) has a flat sensing surface (112) parallel with the plate (120), wherein:

the electrode (110) interfaces with a panel (150) that prevents movement of the electrode (110) relative to the plate (120).

11. The capacitive touch sensor (100) of claim 10, wherein the electrode (110) further comprises an extending portion (114) that extends away from the sensing surface (112).

12. The capacitive touch sensor (100) of claim 11, wherein the extending portion (114) interfaces with the panel (150) that prevents the movement of the electrode (110) relative to the plate (120).

13. The capacitive touch sensor (100) of claim 11, wherein the extending portion (114) interfaces with the spring (130) to prevent a movement of the electrode (110) relative to the spring (130).

14. The capacitive touch sensor (100) of claim 10, wherein the spring (130) comprises a first distal portion (134) that presses the electrode (110) towards the plate (120) and a second distal portion (132) that is coupled to a circuit board (140).

15. The capacitive touch sensor (100) of claim 14, wherein the first distal portion (134) is comprised of an inverse cone region that presses against the electrode (110).

16. The capacitive touch sensor (100) of claim 14, wherein the spring (130) comprises a conductor that electrically couples the electrode (110) with a circuit board (140).

17. The capacitive touch sensor (100) of claim 14, wherein the spring (130) holds the electrode (110) spaced apart from the circuit board (140).

18. The capacitive touch sensor (100) of claim 10, wherein the spring (130) is a coil spring with the longitudinal length (L).

19. An interface (10) having a capacitive touch sensor (100), comprising:
an operation module (12) coupled to an electrode (110) coupled to a panel (150);
a display cover (14) coupled to a plate (120);
a transmitter (16), wherein:
the display cover (14) is coupled to the transmitter (16) and the operation module (12) is disposed between the display cover (14) and the transmitter (16); and
the electrode (110) is pressed against the plate (120) and interfaced with the panel (150) that prevents movement of the electrode (110) relative to the plate (120).

20. The interface (10) of claim 19 further comprising a spring (130) wherein the electrode (110) is pressed against the plate (120) by the spring (130).

21. The interface (10) of claim 20 wherein the spring (130) extends from a circuit board (140) disposed between the operation module (12) and the transmitter (16).

22. The interface (10) of claim 20 wherein the electrode (110) is pressed against the plate (120) by the spring (130) in a direction that is substantially parallel to a longitudinal length (L) of the spring (130).