

plurality of fluids having different characteristics as detected by the capacitance sensing technology of the system.

13. A method for performing fluid level determination of at least one fluid, said method comprising the steps of:

- (1) providing a sensor array having at least one sensing surface formed from a substrate and a plurality of conductive elements disposed thereon that create an array of sensor electrodes, touchpad sensor circuitry coupled to the sensor array for receiving signals from the sensor array, and wherein the touchpad sensor circuitry provides data regarding at least one fluid relative to the at least one sensing surface; and
- (2) determining a fluid level of the at least one fluid using the sensor array and the touchpad sensor circuitry.

14. The method as defined in claim **13** wherein the method further comprises the step of providing a flexible substrate material that is capable of conforming to arcuate surfaces.

15. The method as defined in claim **14** wherein the method further comprises the step of conforming the at least one sensing surface to a surface against which the flexible substrate material is disposed.

16. The method as defined in claim **13** wherein the method further comprises the step of providing a container within which the at least one fluid is disposed.

17. The method as defined in claim **16** wherein the method further comprises the step of disposing the sensor array within the container.

18. The method as defined in claim **17** wherein the method further comprises the step of coating the sensor array in a

protective material if the at least one fluid within the container can damage materials used in the sensor array.

19. The method as defined in claim **16** wherein the method further comprises the step of disposing the sensor array outside the container on a container wall.

20. The method as defined in claim **19** wherein the method further comprises the step of disposing the sensor array flush against the container wall to thereby maximize exposure of the at least one sensing surface to the at least one fluid within the container.

21. The method as defined in claim **13** wherein the method further comprises the step of determining characteristics of the at least one fluid that can be derived from capacitance-sensing technology of the system.

22. The method as defined in claim **13** wherein the method further comprises the step of determining a presence or absence of the at least one fluid within proximity sensing range of the system.

23. The method as defined in claim **13** wherein the method further comprises the step of determining composition of the at least one fluid within proximity sensing range of the system.

24. The method as defined in claim **13** wherein the method further comprises the step of determining a fluid level of a plurality of fluids having different characteristics as detected by the capacitance sensing technology of the system.

25. The method as defined in claim **13** wherein the method further comprises the step of analyzing signal strength to determine characteristics of the at least one fluid.

* * * * *