CLAIMS

1. A system for detecting fluid, the system comprising:

a wicking material to draw fluid from a first location to a second location remote from the first location and the first location is at or near an imaging or viewing system component, wherein the wicking material extends from the first location to the second location and wherein the first location is disposed proximate to a fluid retention boundary so as to be exposed to fluid escaping the fluid retention boundary;

a remote fluid indicator located at the second location, wherein the remote fluid indicator contacts a portion of the wicking material at the second location, wherein a detectable color alteration to the remote fluid indicator is produced when fluid contacts the remote fluid indicator; and

an optical sensor to detect the detectable color alteration, wherein the optical sensor does not physically contact the remote fluid indicator and is different from the imaging or viewing system component.

2. The system of claim 1, wherein the detectable color alteration comprises a color change.

3. The system of claims 1 or 2, wherein the remote fluid indicator comprises a tape indicator.

4. The system of any of claims 1-3, wherein the optical sensor comprises a colorimetric reflective optical sensor.

5. The system of any of claims 1-4, wherein the wicking material comprises a woven material.

6. The system of any of claims 1-5, wherein the wicking material comprises a nylon mesh fiber material.

7. The system of any of claims 1-6, wherein the wicking material is attached to a surface at the first location by a hydrophilic adhesive.

8. The system of claim 7, wherein the wicking material and the hydrophilic adhesive have a maximum combined thickness of about 120 μm at the first location.

9. The system of any of claims 1-8, wherein the wicking material at the first location is proximate to a fluid-sensitive element.

10. The system of any of claims 1-9, further comprising a communication component coupled to the optical sensor to produce a signal when the optical sensor detects the detectable color alteration.

11. A method of detecting fluid comprising:

contacting a fluid with a wicking material at a first location at which the fluid has escaped a fluid retention boundary, wherein the wicking material extends from the first location to a second location remote from the first location, and the first location is at or near an imaging or viewing system component;

drawing the fluid from the first location to the second location via the wicking material;

contacting the fluid with a remote fluid indicator in contact with the wicking material at the second location, wherein the contact between the fluid and the remote fluid indicator produces a detectable color alteration to the remote fluid indicator; and

detecting the detectable color alteration via an optical sensor operatively associated with the remote fluid indicator, wherein the optical sensor does not physically contact the remote fluid indicator and is different from the imaging or viewing system component.

12. The method of claim 11, wherein the fluid contacting the wicking material has a volume of about 1 to about 500 μL.

13. The method of claims 11 or 12, wherein the remote fluid indicator comprises a tape indicator.

14. The method of any of claims 11-13, wherein the detectable color alteration comprises a color change and the optical sensor comprises a colorimetric reflective optical sensor.

15. The method of any of claims 11-14, wherein the wicking material comprises a woven material.

16. The method of any of claims 11-15, wherein the wicking material is attached to a surface at the first location by a hydrophilic adhesive, wherein the wicking material and the hydrophilic adhesive have a maximum combined thickness of about 120 μm at the first location.

17. A fluid analysis system comprising:

a fluidic device, wherein a portion of the fluidic device is disposed at a first location;

a wicking material extending from the first location to a second location remote from the first location, and the first location is at or near an imaging or viewing system component;

a remote fluid indicator at the second location, wherein the remote fluid indicator contacts a portion of the wicking material at the second location, wherein a detectable color alteration to the remote fluid indicator is produced when fluid contacts the remote fluid indicator; and

an optical sensor to detect the detectable color alteration, where the optical sensor does not physically contact the remote fluid indicator and is different from the imaging or viewing system component.

18. The system of claim 17, further comprising a fluid cartridge with a fluid channel, wherein the fluidic device is disposed within the fluid cartridge and connected to the fluid channel at the first location, and wherein the wicking material and the second location are disposed within the fluid cartridge.

19. The system of claims 17 or 18, further comprising an optical objective to optically analyze fluid within the fluidic device, wherein the optical objective is positioned about 100 to about 1000 μm from a viewing surface of the fluidic device.

20. The system of any of claims 17-19, wherein the remote fluid indicator comprises a tape indicator.

21. The system of any of claims 17-20, wherein the detectable color alteration comprises a color change and the optical sensor comprises a colorimetric reflective optical sensor.

22. The system of any of claims 17-21, wherein the wicking material comprises a woven material.

23. The system of any of claims 17-22, further comprising a second wicking material surrounding the fluidic device, wherein the remote fluid indicator contacts a portion of the second wicking material at the second location.