

Claims:

1. An apparatus for facilitating medical imaging of a subject comprising:
 - a medical imaging device receiver configured to receive an ultrasound medical imaging device,
 - a sound wave manipulation module comprising a soundwave deflection surface arranged to direct transmission of sound waves between the ultrasound medical imaging device and the subject, and
 - at least one auxiliary equipment receiver configured to receive an auxiliary equipment and to provide a pathway for insertion of the auxiliary equipment, wherein the pathway extends from the soundwave deflection surface to a base plane of the apparatus when rested on the subject, and an image of the subject is formed by the ultrasound medical imaging device for guiding insertion of the auxiliary equipment towards a target portion of the subject, and wherein the position of the pathway is calibrated for the ultrasonic medical imaging device being used.
2. The apparatus according to claim 1, wherein the soundwave deflection surface is arranged to alter a direction of transmission of at least part of the sound waves.
3. The apparatus according to claim 2, wherein the soundwave deflection surface is configured to facilitate at least one of the following: - reflection, refraction, diffraction of sound waves.
4. The apparatus according to claim 2, wherein the soundwave deflecting surface is formed from a material having a sound transmission velocity at a ratio ranging from 1.0 to 11.0 relative to water.
5. The apparatus according to any one of claims 2 to 4, wherein the soundwave manipulation module comprises a soundwave transmission portion arranged to facilitate transmission of the sound waves between at least the ultrasound medical imaging device and the soundwave deflection surface.
6. The apparatus according to claim 5, wherein the soundwave transmission portion is formed from a material having a sound transmission velocity at a ratio ranging from 0.8 to 5.0 relative to water.

7. The apparatus according to any one of claims 5 to 6, wherein the soundwave transmission portion comprises a gel-based material.
8. The apparatus according to claim 7, wherein the gel-based material is disposed at a hollow portion of the sound wave manipulation module.
9. The apparatus according to claim 8, wherein the pathway of the auxiliary equipment receiver is provided by a tubular channel extending through the hollow section.
10. The apparatus according to claim 9, wherein the gel-based material is accommodated within a gel pad that protrudes through a calibration window provided at a base plane of the apparatus.
11. The apparatus of claim 10, wherein the tubular channel extends to or through calibration window.
12. The apparatus according to claim 1, wherein the soundwave manipulation module is formed from a homogenous material having a sound transmission velocity at a ratio ranging from 1.0 to 3.0 relative to water.
13. The apparatus according to claim 12, wherein the sound wave manipulation module, the medical imaging device receiver and the auxiliary equipment receiver are integrally formed as a one-piece element.
14. The apparatus according to any one of claims 1 to 13, wherein the at least one auxiliary equipment receiver is configured to facilitate placement of the auxiliary equipment at more than one desired positions with respect to a base plane of the apparatus.
15. The apparatus according to any one of claims 1 to 14, wherein the ultrasound medical imaging device is mounted at a first angle between 0 to 90 degrees with respect to a base plane of the apparatus, and the sound wave deflection surface may be mounted at a second angle between 0 to 90 degrees with respect to a base plane of the apparatus.
16. The apparatus according to any one of the preceding claims, comprising a handle for controlling movement of the apparatus on a body surface of the subject.
17. The apparatus according to any one of the preceding claims, comprising a locking mechanism for maintaining the medical device at a desired position relative to a part of the apparatus.

18. A method for deploying the apparatus of any one of claims 1 to 17 comprising the steps of:-

- attaching an ultrasound medical imaging device to the medical imaging device receiver of the apparatus;
- placing the apparatus on a body surface of a subject;
- moving the apparatus on the body surface for obtaining an image of a target portion of the subject;
- attaching an auxiliary equipment to the at least one auxiliary equipment receiver of the apparatus;
- adjusting position of the auxiliary equipment along the pathway provided by the at least one auxiliary equipment receiver based on the image of the target portion, and inserting the auxiliary equipment towards the target portion.

19. A process of manufacturing an apparatus according to claim 10, comprising inserting the gel pad into the hollow section of the sound transmission module such that a portion of the gel pad protrudes through the calibration window.