

WHAT IS CLAIMED IS:

1. An electronic device, comprising:
 - a housing including a head part that is rotatable;
 - a plurality of microphones disposed in the head part;
 - a sensor for detecting a rotation angle of the head part;
 - a memory storing data classifying feature parameters for each of the plurality of microphones according to a plurality of rotation angles;
 - a motor configured to rotate the head part; and
 - a processor configured to:
 - when detecting sound by the plurality of microphones originating from a sound source, drive the motor to rotate the head part until a designated portion of a surface of the head part is facing the sound source, and
 - when the designated portion of the surface is facing the sound source, adjust feature parameters for each the plurality of microphones based on the classified feature parameters and a current angle of the head part.
2. The electronic device of claim 1, wherein the processor further configured to detect a direction in which to rotate the head part by detecting a difference in time between a first microphone of the plurality of microphones detecting the sound and a second microphone of the plurality of microphones detecting the sound, and
 - drive the motor to rotate the head part until a designated portion of a surface of the head part is facing the sound source based on the detected direction.
3. The electronic device of claim 1, wherein the feature parameters includes gain, a type of a tonal filter, and a type of a frequency filter.
4. The electronic device of claim 3, wherein the processor further configured to adjust the gain to be proportional to a distance between the sound source and each of the plurality of microphones.
5. The electronic device of claim 1, wherein the rotation angle corresponds to an orientation of the head part with respect to a tri-axis including three axes for three dimensions.

6. The electronic device of claim 1, wherein the processor further configured to:
detect a distance between the sound source and each of the plurality of microphones
based on an intensity of the detected sound, and

adjust feature parameters for each the plurality of microphones based on the detected
distance.

7. The electronic device of claim 1, further comprising at least one of a camera, a
display, and a cover glass disposed on a surface of the head part.

8. The electronic device of claim 7, wherein the processor further configured to:
detected a face using the camera; and
drive the motor such that the head part is rotated until the designated portion of the
surface of the head part faces the detected face.

9. The electronic device of claim 7, further comprising:
a communication interface configured to communicate with an external device,
wherein the processor further configured to:
control the display to display an image based on data received by the communication
interface.

10. The electronic device of claim 7, wherein the cover glass includes at least one
of tempered glass and transparent plastic.

11. The electronic device of claim 1, wherein the sensor includes an inertial
measurement unit (IMU) sensor.

12. The electronic device of claim 1, further comprising:
a band including fabric or rubber disposed on the head part.

13. An electronic device, comprising:
a housing including a head part that is rotatable;
a plurality of microphones disposed on the head part ;
a sensor for detecting a rotation angle of the head part;
a memory storing data classifying feature parameters of each of the plurality of microphones according to a plurality of rotation angles;
a first motor configured to rotate the head part in a first direction;
a second motor configured to rotate the head part in a second direction;
a camera; and
a processor, configured to:
if a sound from a sound source is detected by the plurality of microphones, drive the first motor to rotate the head part until one surface of the head part faces the sound source,
if the one surface faces the sound source, detect the sound source using the camera,
if the sound source is detected, drive the second motor until the sound source is disposed within a prespecified region of an image captured by the camera, and
if the sound source is disposed within the prespecified region, adjust feature parameters of each of the plurality of microphones based on classified feature parameters and a current angle of the head part.

14. The electronic device of claim 13, wherein the processor further configured to detect a direction in which to rotate the head part by detecting a difference in time between a first microphone of the plurality of microphones detecting the sound and a second microphone of the plurality of microphones detecting the sound, and
drive the first motor to rotate the head part in a first direction until one surface of the head part faces the sound source.

15. The electronic device of claim 13, wherein the memory further stores an image associated with the sound source, and
wherein the processor further configured to:
recognize the sound source by comparing the stored image and the image captured by the camera.

16. The electronic device of claim 15, wherein the processor further configured to: compare a feature point of the stored image with a feature point of an object included in the image captured by the camera; and

when a match is detected indicating similarity the feature point of the stored image and the feature point of the object greater than a predetermined threshold, recognize the object as the sound source.

17. The electronic device of claim 13, wherein a center of the image captured by the camera is included in the prespecified region.

18. The electronic device of claim 13, wherein the feature parameters includes a gain, a type of a tonal filter, and a type of a frequency filter.

19. The electronic device of claim 13, wherein the rotation angle corresponds to an orientation of the head part with respect to a tri-axis including three axes for three dimensions.

20. The electronic device of claim 13, wherein the first direction is perpendicular to the second direction.