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CLAIMS

1. A method of living body detection, comprising:
 - obtaining (201) a first image for a target object via a camera at a first focal length;
 - obtaining (201) a second image for the target object via the camera at a second focal length;
 - determining (202) a difference image of the first image and the second image; and
 - determining (203) whether the target object is a living body according to the difference image.
2. The method of claim 1, wherein the determining whether the target object is a living body according to the difference image comprises:
 - performing (303) an image enhancement process on the difference image;
 - performing (304) a binarization process on the difference image subjected to the image enhancement process; and
 - determining (305) whether the target object is a living body according to the difference image subjected to the binarization process.
3. The method of claim 1, wherein the determining whether the target object is a living body according to the difference image comprises:
 - acquiring a histogram of the difference image;
 - converting the histogram into a curve diagram; and
 - determining a similarity between the curve diagram and a preset curve diagram, and determining whether the target object is a living body according to the similarity.
4. The method of claim 1, wherein the determining whether the target object is a living body according to the difference image comprises:
 - obtaining one or more features from the difference image; and
 - determining whether the target object is a living body according to the one or more features.
5. The method of claim 4, wherein the determining whether the target object is a living body according to the one or more features comprises:
 - acquiring a positive sample set and a negative sample set, wherein the positive sample set containing a plurality of difference images for a plurality of living bodies and the negative sample set containing a plurality of difference images for a plurality of non-living bodies;
 - extracting a plurality of features from the positive sample set and a plurality of features from the negative sample set ;
 - obtaining a first classifier according to the plurality of features extracted from the positive sample set and obtaining a second classifier according to the plurality of features extracted from the negative sample set; and
 - determining whether the target object is a living body according to the one or more features, the first classifier and the second classifier.
6. The method of any one of claims 1 to 5, wherein the determining the difference image of the first image

and the second image comprises:

- obtaining a binarized first image by performing a binarization process on the first image;
- obtaining a binarized second image by performing a binarization process on the second image; and
- obtaining the difference image by calculating an absolute value of a difference between each pixel of the binarized first image and each corresponding pixel of the binarized second image.

7. The method of any one of claims 1 to 5, wherein the determining the difference image of the first image and the second image comprises:

- extracting, from the first image, a first target image corresponding to the target object;
- extracting, from the second image, a second target image corresponding to the target object;
- adjusting an image resolution of the first target image to be consistent with an image resolution of the second target image; and
- determining a difference image of the first target image adjusted and the second target image.

8. A terminal device, comprising:

- a camera; and
- an application processor, AP; wherein
- the camera is coupled with the AP and configured to obtain a first image for a target object via a camera at a first focal length and obtain a second image for the target object via the camera at a second focal length; and
- the AP is configured to determine a difference image of the first image and the second image and determine whether the target object is a living body according to the difference image.

9. The terminal device of claim 8, wherein the AP configured to determine whether the target object is a living body according to the difference image is configured to:

- obtain an enhanced difference image by performing an image enhancement process on the difference image;
- obtain a binarized image by performing binarization process on the enhanced difference image; and
- determine whether the target object is a living body according to the binarized difference image.

10. The terminal device of claim 8, wherein the AP configured to determine whether the target object is a living body according to the difference image is configured to:

- acquire a histogram of the difference image;
- convert the histogram into a curve diagram; and
- determine a similarity between the curve diagram and a preset curve diagram, and determine whether the target object is a living body according to the similarity.

11. The terminal device of claim 8, wherein the AP configured to determine whether the target object is a living body according to the difference image is configured to:

- obtain one or more features from the difference image; and
- determine whether the target object is a living body according to the one or more features.

12. The terminal device of claim 11, wherein the AP is further configured to:

acquire a positive sample set and a negative sample set, wherein the positive sample set comprises a plurality of difference images for a plurality of living bodies and the negative sample set comprises a plurality of difference images for a plurality of non-living bodies;

extract a plurality of features from the positive sample set and a plurality of features from the negative sample set;

obtain a first classifier according to the plurality of features extracted from the positive sample set and a second classifier according to the plurality of features extracted from the negative sample set; and

determine whether the target object is a living body according to the one or more features, the first classifier and the second classifier.

13. The terminal device of any one of claims 8 to 12, wherein the AP configured to determine the difference image of the first image and the second image is configured to:

obtain a binarized first image by performing a binarization process on the first image;

obtain a binarized second image by performing a binarization process on the second image; and

obtain the difference image by calculating an absolute value of a difference between each pixel of the binarized first image and each corresponding pixel of the binarized second image.

14. The terminal device of any one of claims 8 to 12, wherein the AP configured to determine the difference image of the first image and the second image is configured to:

extract, from the first image, a first target image corresponding to the target object;

extract, from the second image, a second target image corresponding to the target object;

adjust an image resolution of the first target image to be consistent with an image resolution of the second target image; and

determine a difference image of the first target image adjusted and the second target image as the difference image of the first image and the second image.

15. A non-transitory computer readable storage medium, storing program codes that, when executed by a computer, are operable with the computer to perform the method of any one of claims 1 to 7.