Response letter

We thank the Reviewer for the comments, which have helped improve our manuscript. Our responses are in blue.

The author of this manuscript provides a novel systematic framework for deep-sea search and recovery of the lost underwater target. The new recovery system includes TV-Grab, optical camera and acoustical imaging sonar, docking system. These combi-nation can improve the flexibility and reliability of this recovery system, and this system is very useful and effective for small lost underwater target.

Response: We thank the Reviewer for his overall positive assessment of our work.

There is one point for attention. For your docking/grabbing system, what is the maximum weight for lifting a lost target? This is a very important factor for whole systematic design, but this manuscript did not discuss it. Pleas add some comments.

Response: We thank the Reviewer for this comment. The maximum weight for lifting a lost target mostly depends on the armored photoelectric composite cable. In the revised paper, we explicitly state that: "*Most TV-grabs can sample up to 1000 kg or more at a time (Clark et al., 2016).*" (Page 8, L9–10). Furthermore, as mentioned in Page 2, L29–30, "*Most salvage objects do not weigh very much in water (<1000 kg).*" Hence, in the revised paper, we explicitly state that: "*The maximum weight of the new deep-sea recovery system for lifting a lost target is 1000 kg in water*." (Page 8, L16–17).

"*Clark, M. R., Consalvey, M., Rowden, A. A.: Biological sampling in the deep sea, Wiley-Blackwell, New Jersey, 207-227pp., 2016.*" has been added to References.

By the way, language for the whole manuscript is needed to improve.

Response: We thank the Reviewer for this comment. The revised paper has been edited by Editage [www.editage.cn] to improve the level of English.