Hoboware Pendant Logger MX2201 Battery Cap

One-Pager by Anna Thario

Designed by Anna Thario

Access files for 3D Printing on GitHub here or Onshape here.

Background

Hoboware Pendant Logger MX2201 contains a stock battery holder (BLP2032SM-G) that is prone to breakage, effectively making devices retrieved from the field not eligible for redeployment.

The goal of the designed battery cap is to help wedge the battery into place and/or prevent the battery from slipping out of the holder – particularly for loggers placed into streams or rivers experiencing seasonal changes in flow.

Methods

The battery cap was created using a free online Computer Aided Drafting (CAD) software, Onshape. Then, the file was exported as a .stl, and prepared for 3D using PrusaSlicer slicing software, and printed using a Prusa i3 MK3S+ (although any 3D printer with a minimum resolution of 0.4 mm will suffice).

Usage

See photos below for visual guidance.

Once printed, the battery cap should be inserted into the backing of the Pendant Logger. Insert the battery cap towards the edge of the backing that will cover the broken part of the battery holder. The battery cap is the same in diameter as the desiccant tray and will require slight bending to insert.

Once inserted, the battery cap should sit comfortably within the backing, with 0.5 mm of thickness extended past the desiccant tray.

Device Specifications

Material: Polylactic Acid (PLA)

Dimensions: 3.5 mm height*, inner diameter 7.5 mm, outer diameter 10 mm

***3.5 mm tested to be the minimum height required for efficacy, although certain loggers may benefit from increased height**

5.18

R10

R7.5

3.5