

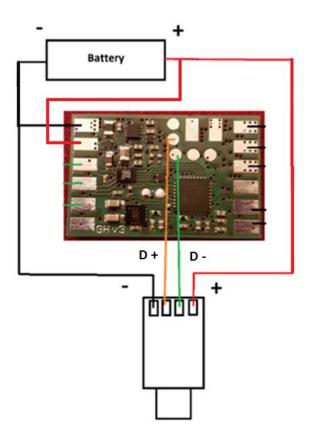
## **Seedling Manual**

The Seedling can be used to charge single-celled Li-ion batteries and to access the SD card in your Golden Harvest v3 via USB. It has the following features:

- smaller than 19 mm x 11 mm / 0.748 " x 0.433 "
- has a microUSB connector
- implements a smart charging algorithm
- supports a maximum charging current of 1.4A
- automatically detects how much current your wall adapter can provide
- charging indicator LED:
  - o constantly on while charging
  - o blinks when one of the following errors is detected
    - no battery
    - bad battery
    - charging suspended due to expiration of safety timer
- provides a series of safety mechanisms:
  - o overheating protection:
    - when reaching 125° C, it automatically shuts down
    - when the temperature is high, the charging current is reduced
  - ESD protection of the USB data lines
  - o bad battery detection: if you try to charge a damaged battery, it will refuse charging
  - o automatic charging termination when the battery is full
- allows to access the SD card in your Golden Harvest v3 via USB:
  - o the SD card is recognized as mass storage device
  - o you can change settings on the SD card
  - you can change sound fonts on the SD card

We recommend to use Panasonic NCR18650B or Keeppower 18650 batteries. These have been tested with the Seedling. We cannot guarantee support for other batteries.

## Wiring



If you want to use the Seedling in combination with other soundboards, you have to swap D+ and D-. However, we cannot guarantee that other soundboards support it. You can also use it as standalone charger without a soundboard. It's important to mention that the Seedling does not interrupt the connection between battery and soundboard which means that inserting a USB cable in the microUSB slot does not act like a kill key. If you want to be able to disconnect your soundboard from the battery, for example to force a reset, you can use a kill switch or a removable battery.