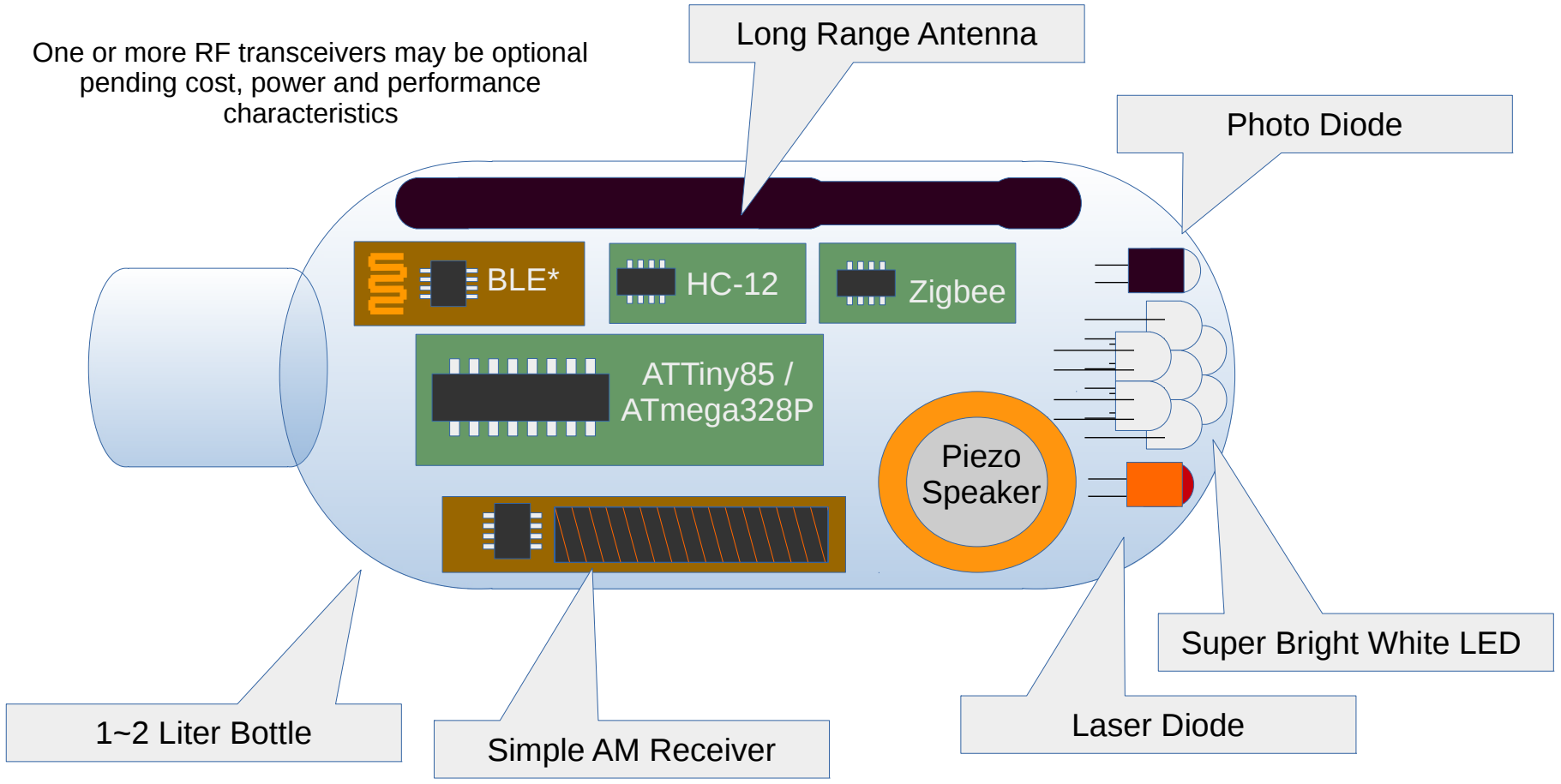
Message-In-A-Bottle Design
Base Model

Draft Version 1a

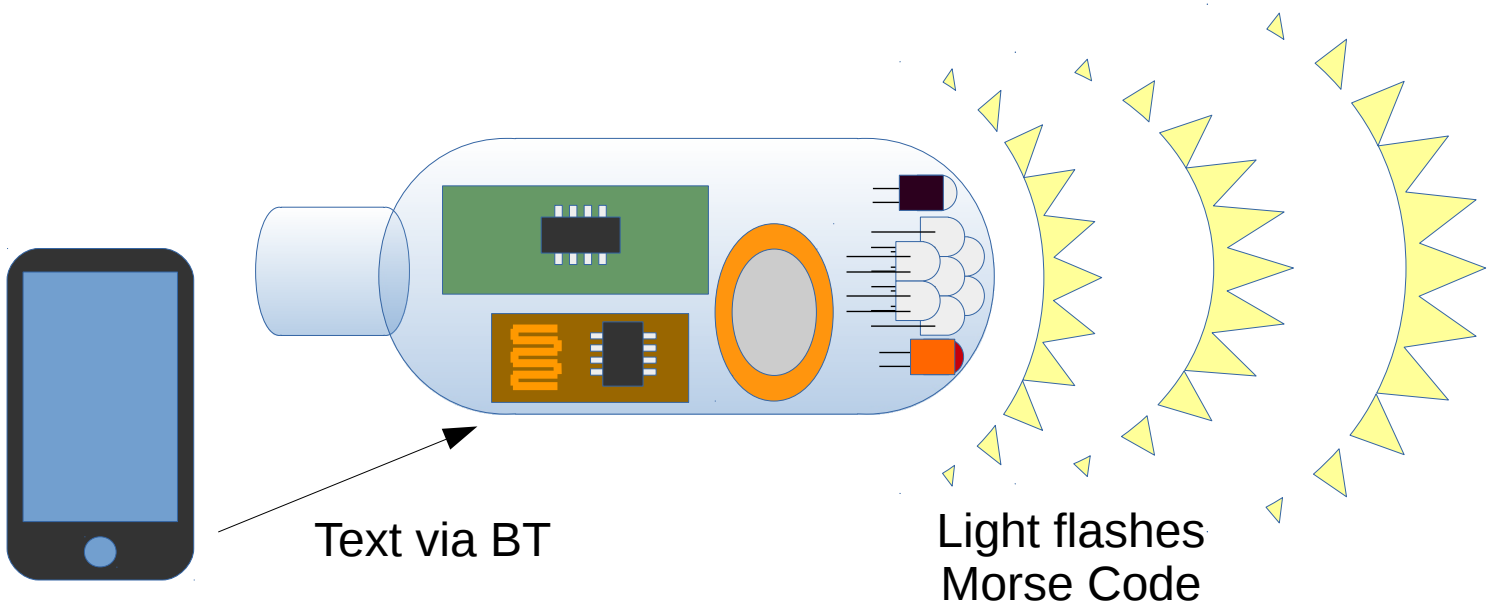
Components not to scale nor actual layout
Also not shown are battery and solar panels

One or more RF transceivers may be optional pending cost, power and performance characteristics



Message-In-A-Bottle Design For NFS Off-the-Grid Challenge

Design By Cesar Urquidez / Ivanix Mobile LLC


Text via BT
Light flashes
Morse Code

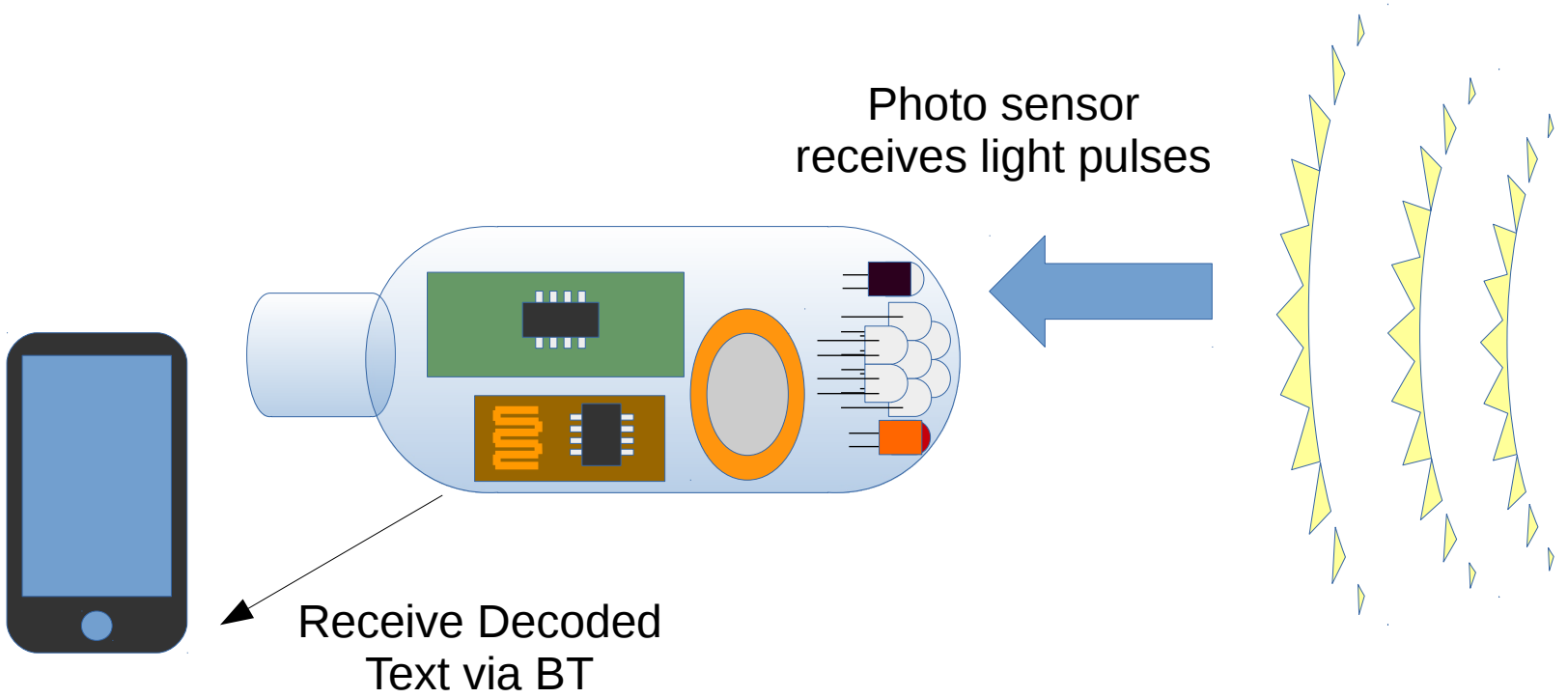
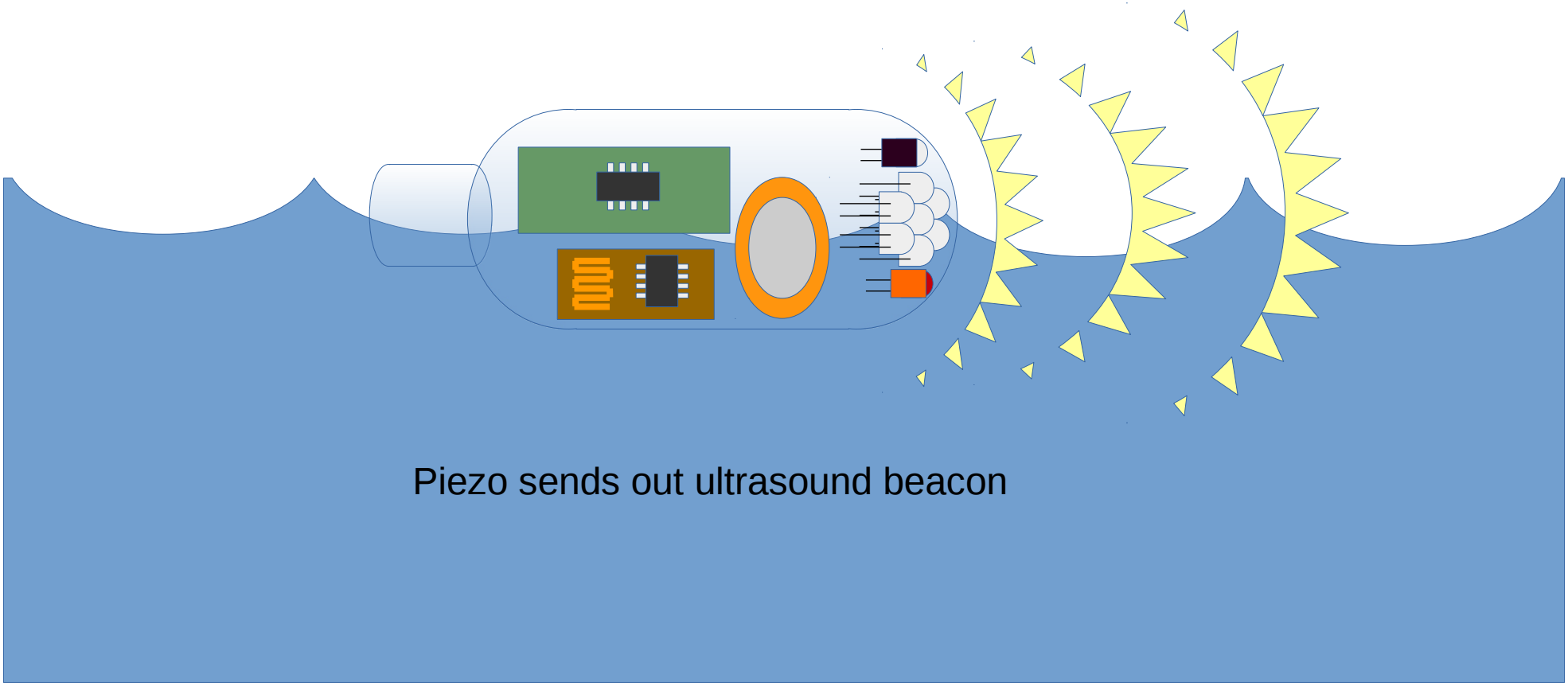


Photo sensor
receives light pulses
Receive Decoded
Text via BT

Light / Laser flash as a beacon



Piezo sends out ultrasound beacon

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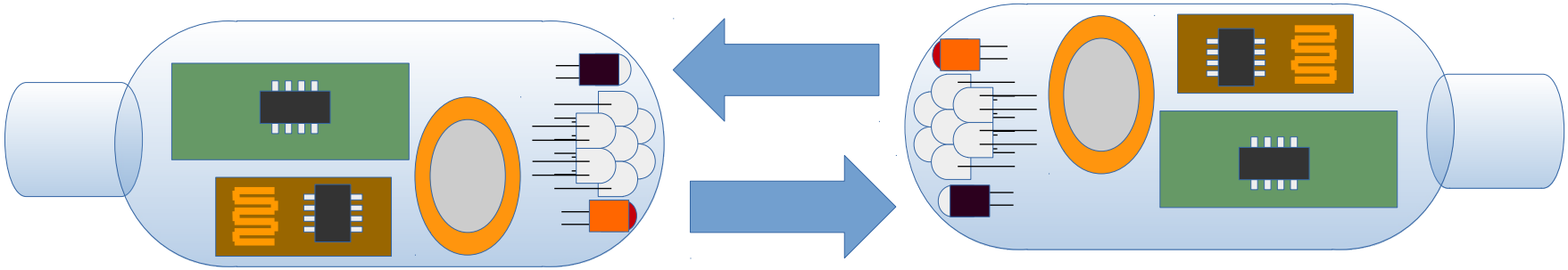
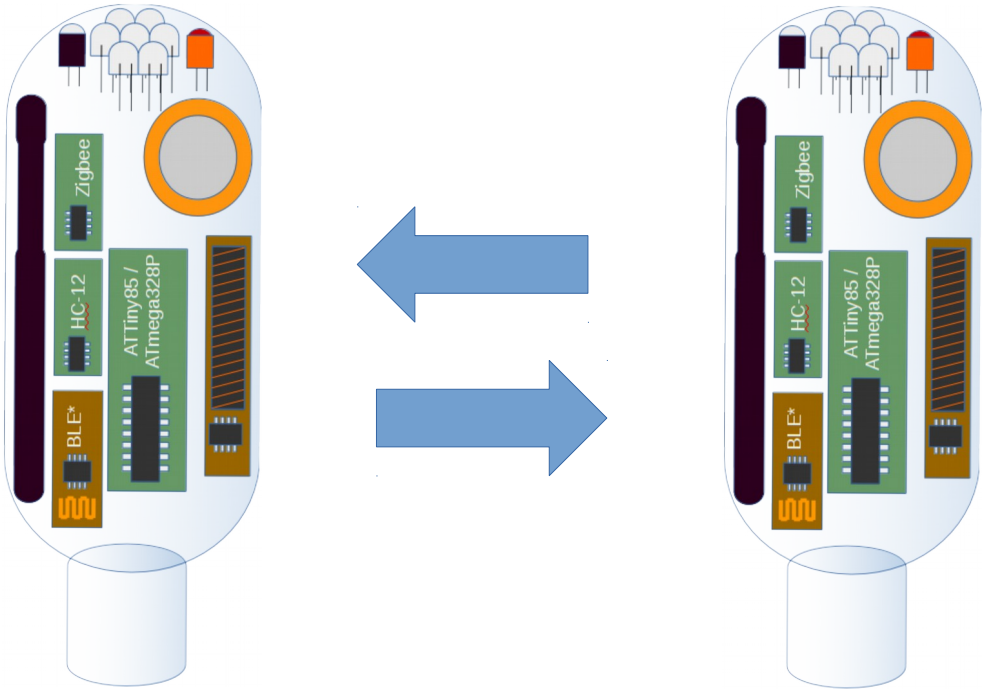
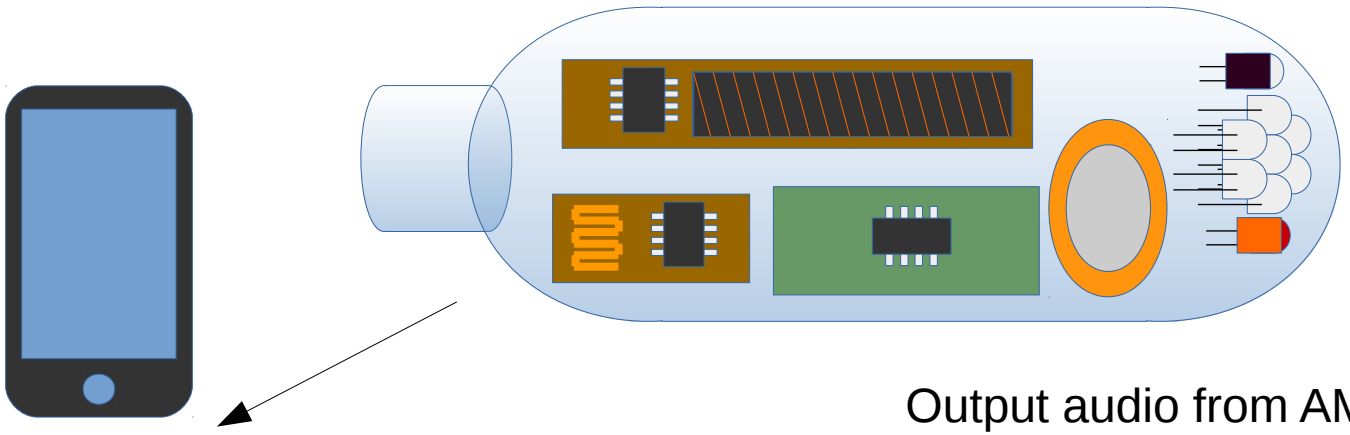



Zigbee
HC-12
ATTiny85 / ATmega328P
BLE*
Zigbee
HC-12
ATTiny85 / ATmega328P
BLE*

Adjust AM frequency by dial on cap or remotely by app (tbd)

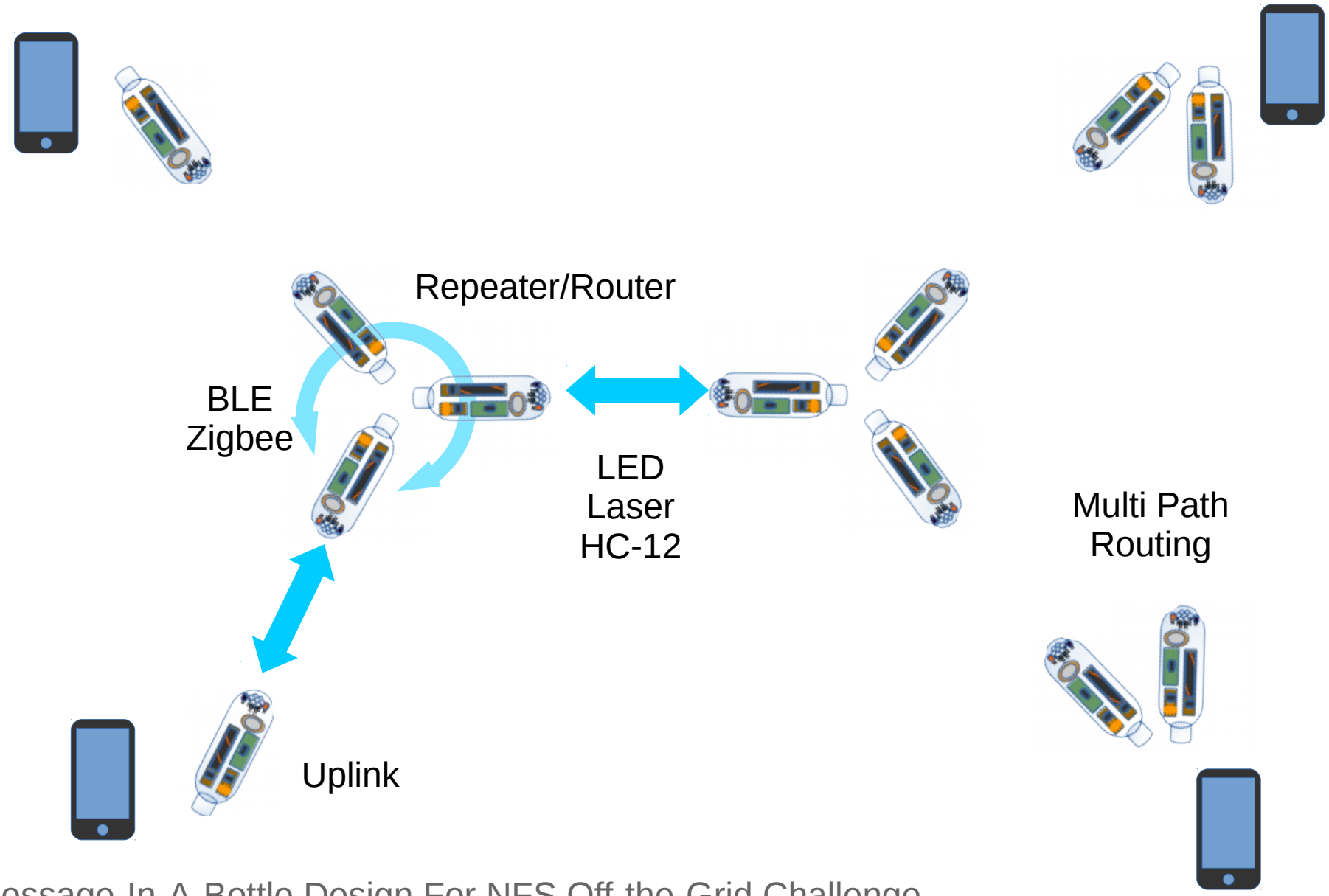


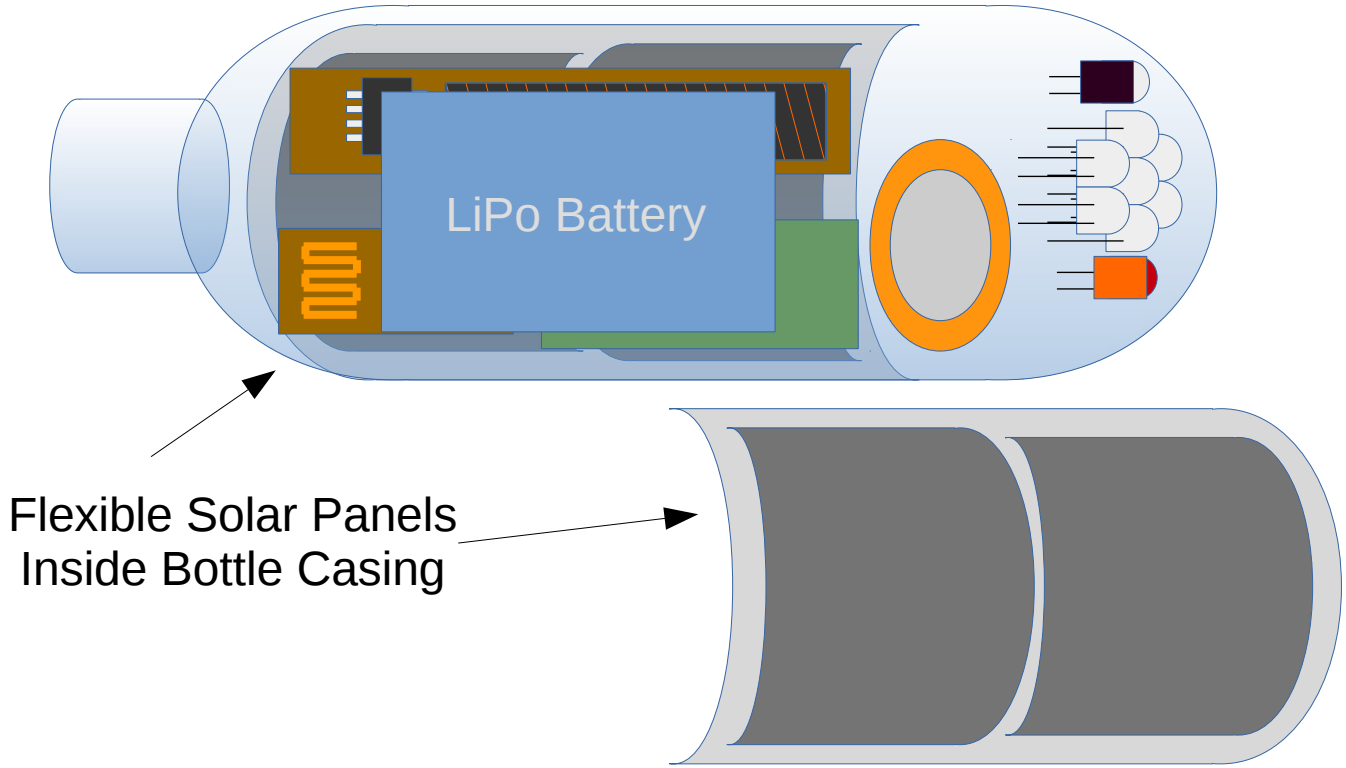
Receive text decode from AM signal

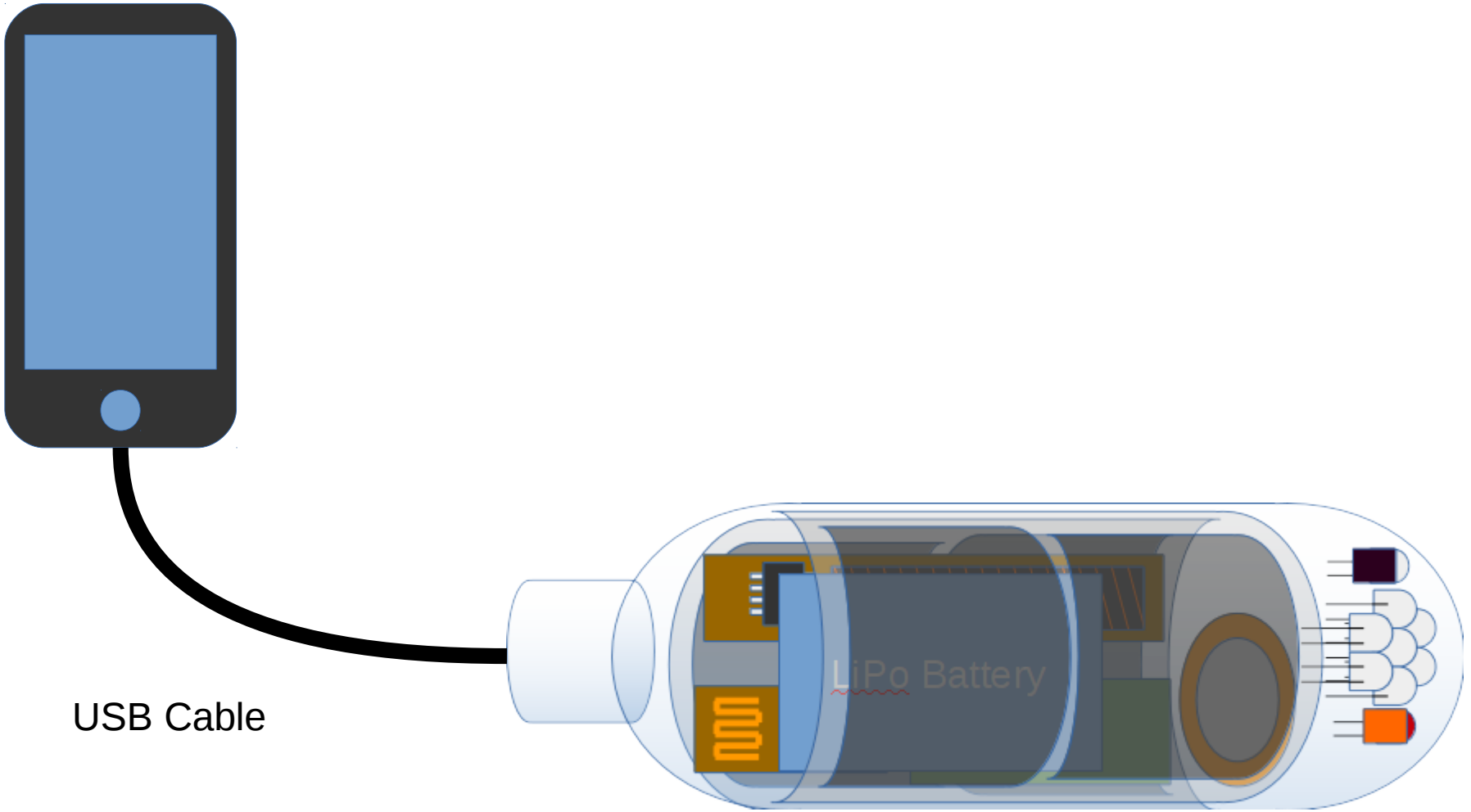
Output audio from AM voice transmissions by piezo speaker

Simple Peer To Peer Topology Example

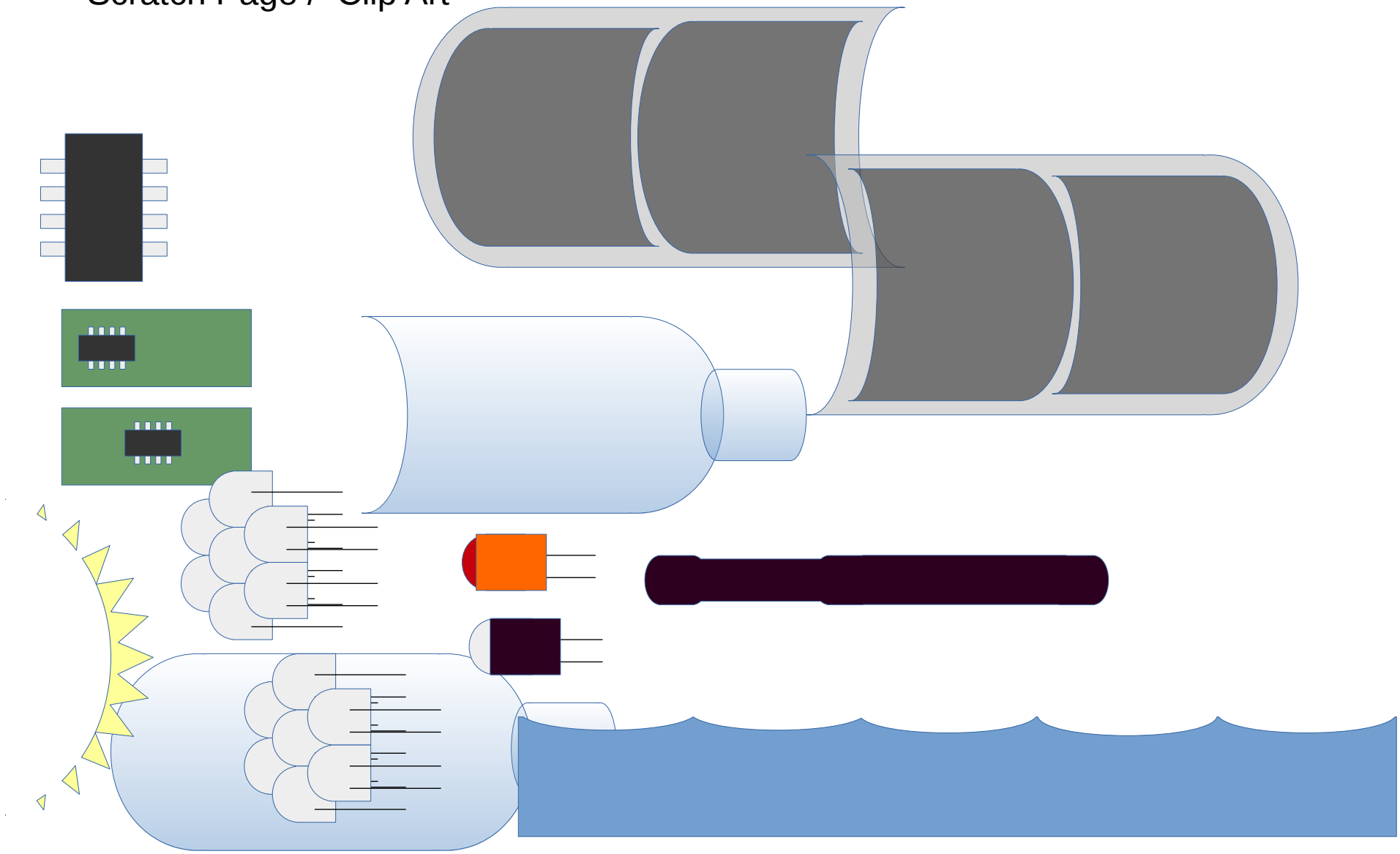
Draft Version 1a




LiPo Battery
Flexible Solar Panels
Inside Bottle Casing


LiPo Battery
USB Cable

Scratch Page / Clip Art



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