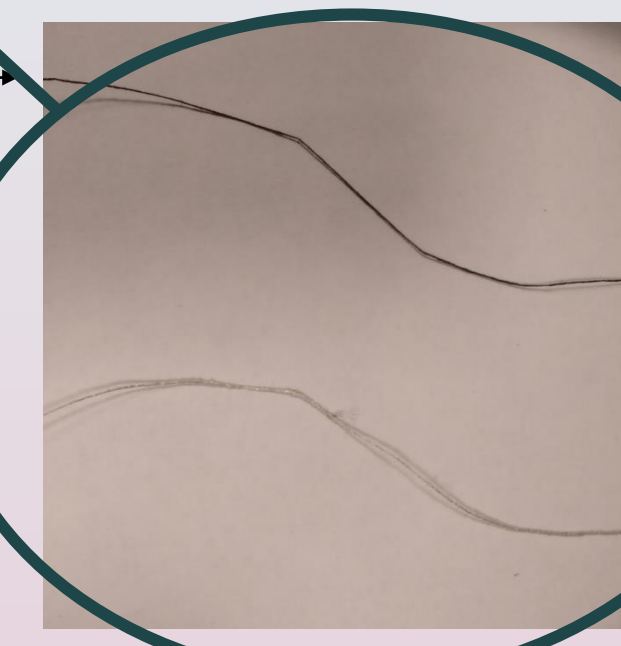
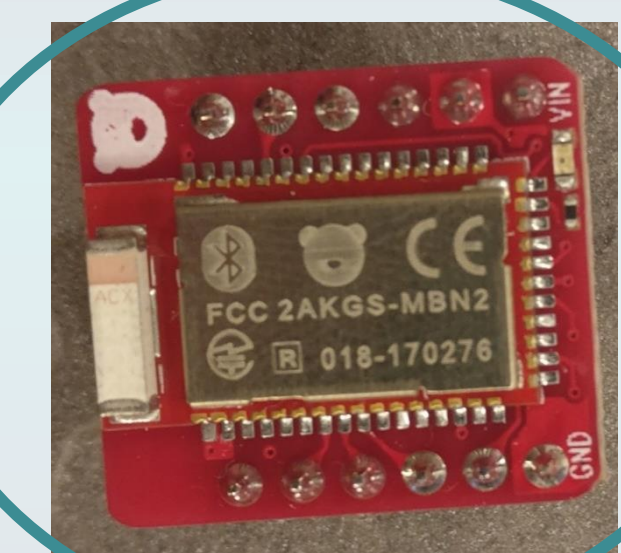
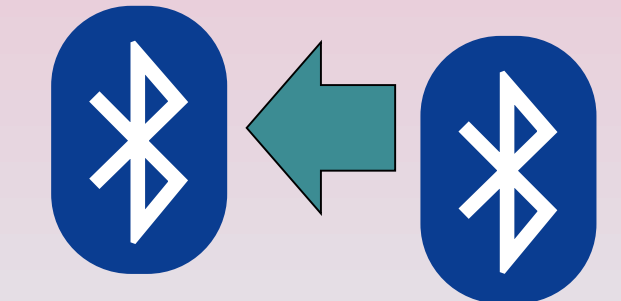
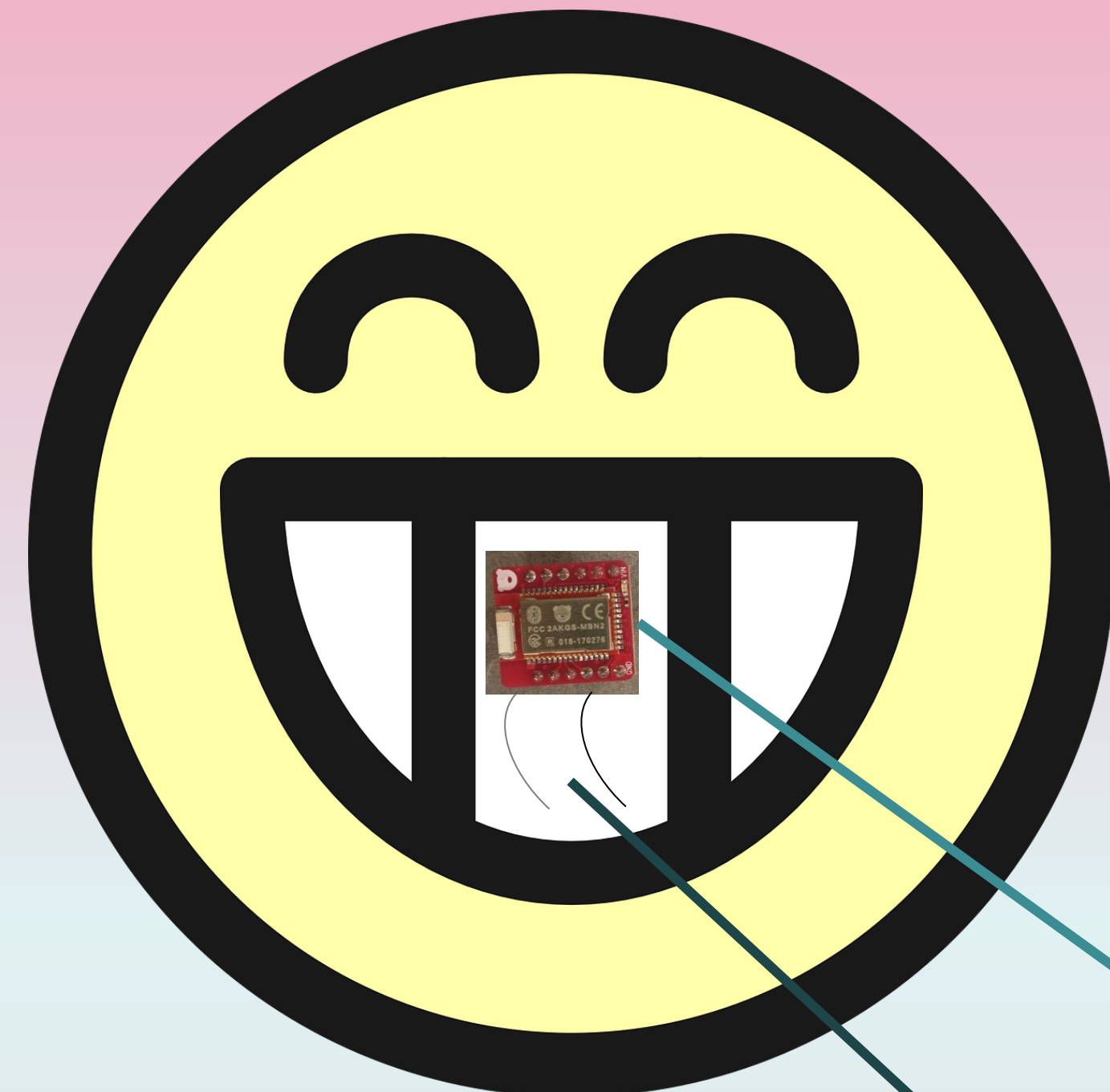
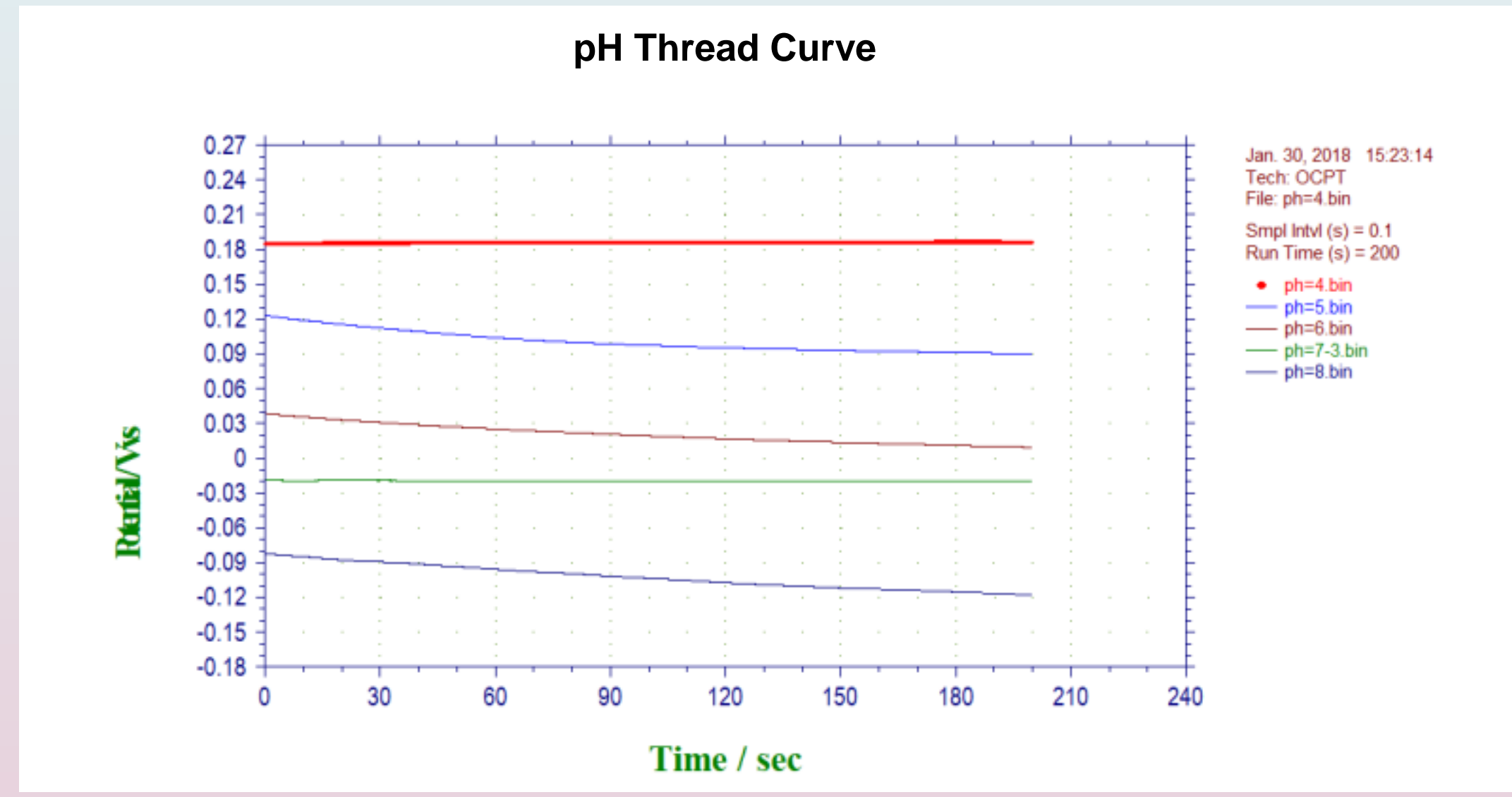
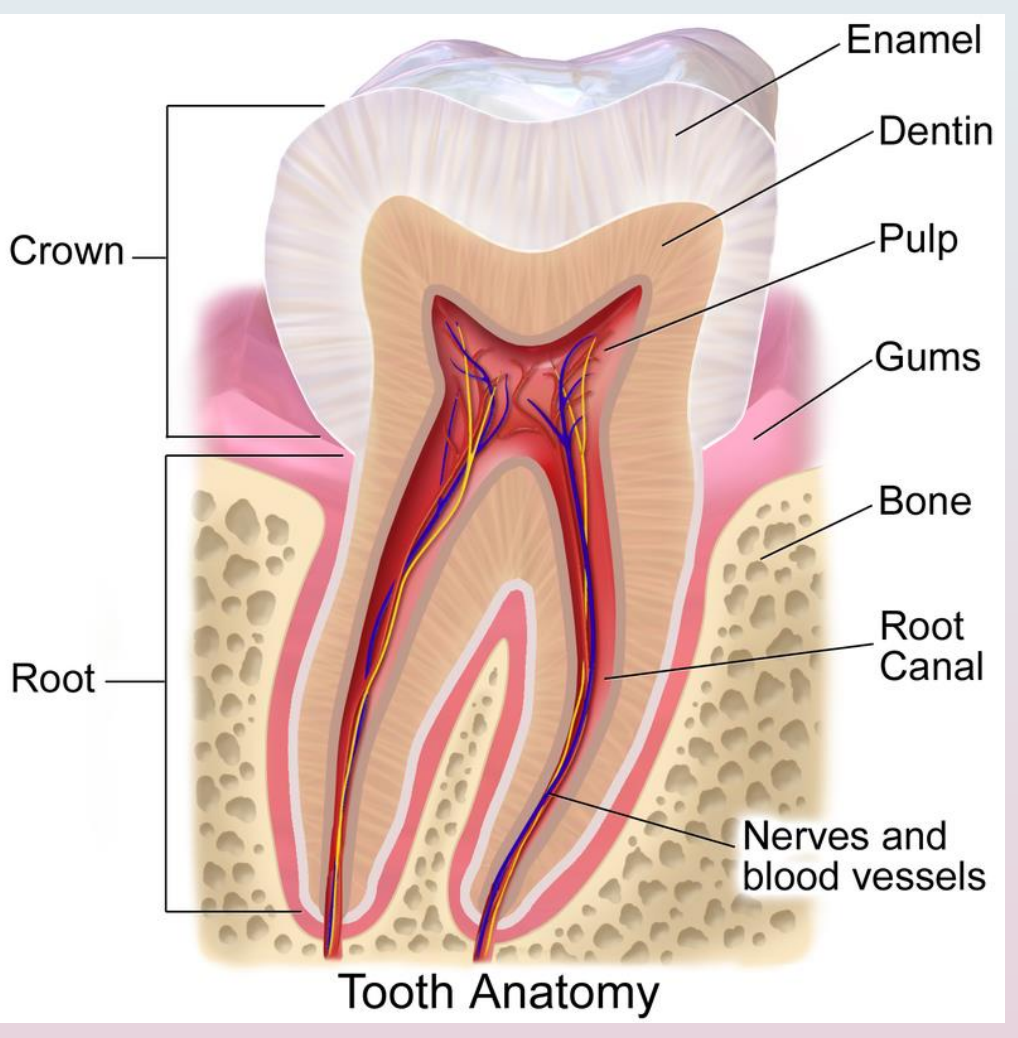
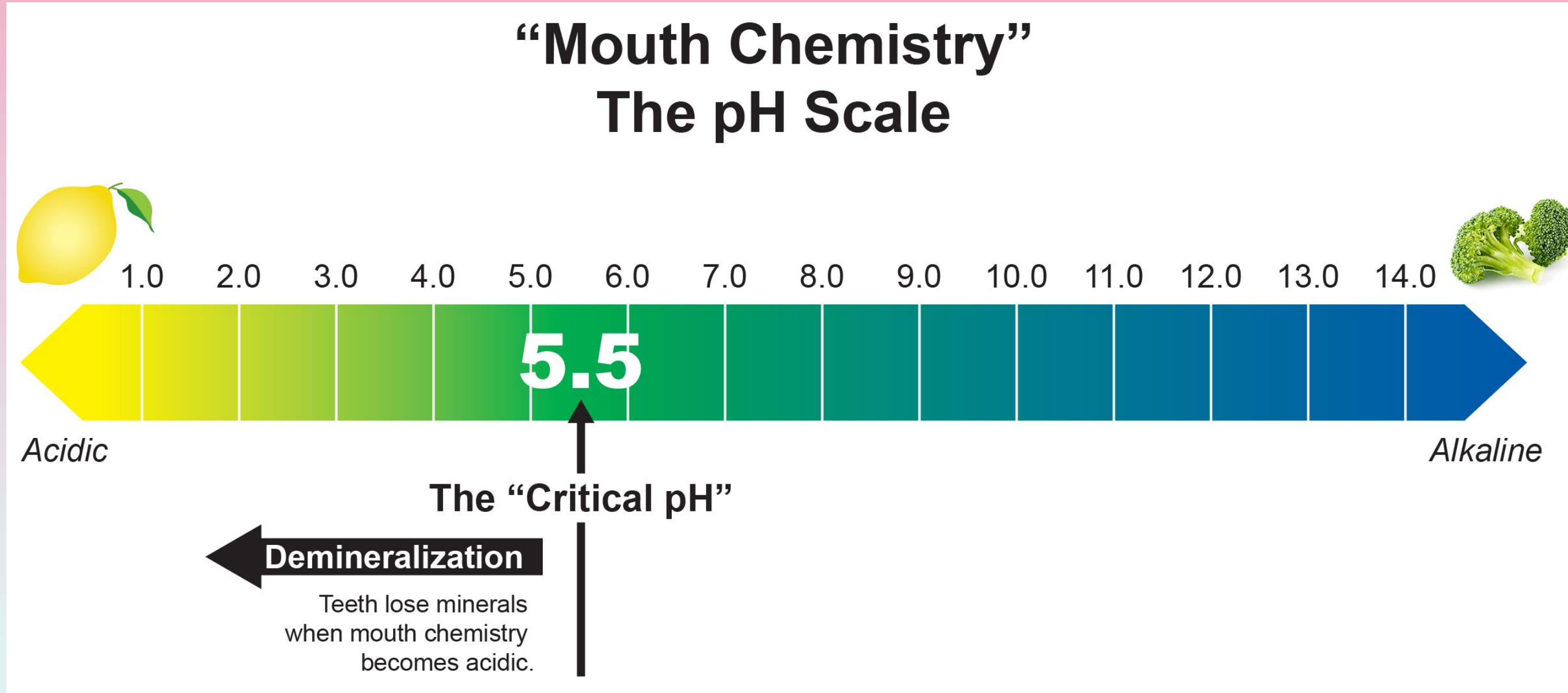


Problem

Purpose

Technology

Challenges



pH sensor

AgAg/Cl
reference
electrode

27% of Americans over 65 have no teeth.

Enamel deteriorates when mouth pH drops below 5.5.

To actively measure and monitor pH levels in the mouth, sending the information to a smartphone.

Bluetooth LE
Low Power Data Transmission

RedBear Nano
Small-scale Microcontroller

pH Sensing Thread
Polyaniline/Carbon Coated

Battery Life
Battery Capacity: 220 mAh
RedBear Current Draw: .02mA
Hours: 220 mAh / .02mA = 11000 hours

Small Scale Enclosure
Waterproof Silicone Epoxy