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Objective: To develop an affordable, easy to use EEG device that will get high school students interested in STEM fields.

Background: High Schools typically don't have the funding to spend on STEM projects. Developing low-cost alternatives to fun science devices increases access and interest in STEM fields.

Value Proposition: Getting high school students learning about their brain patterns is a fun way to get students involved in STEM.

Requirements:

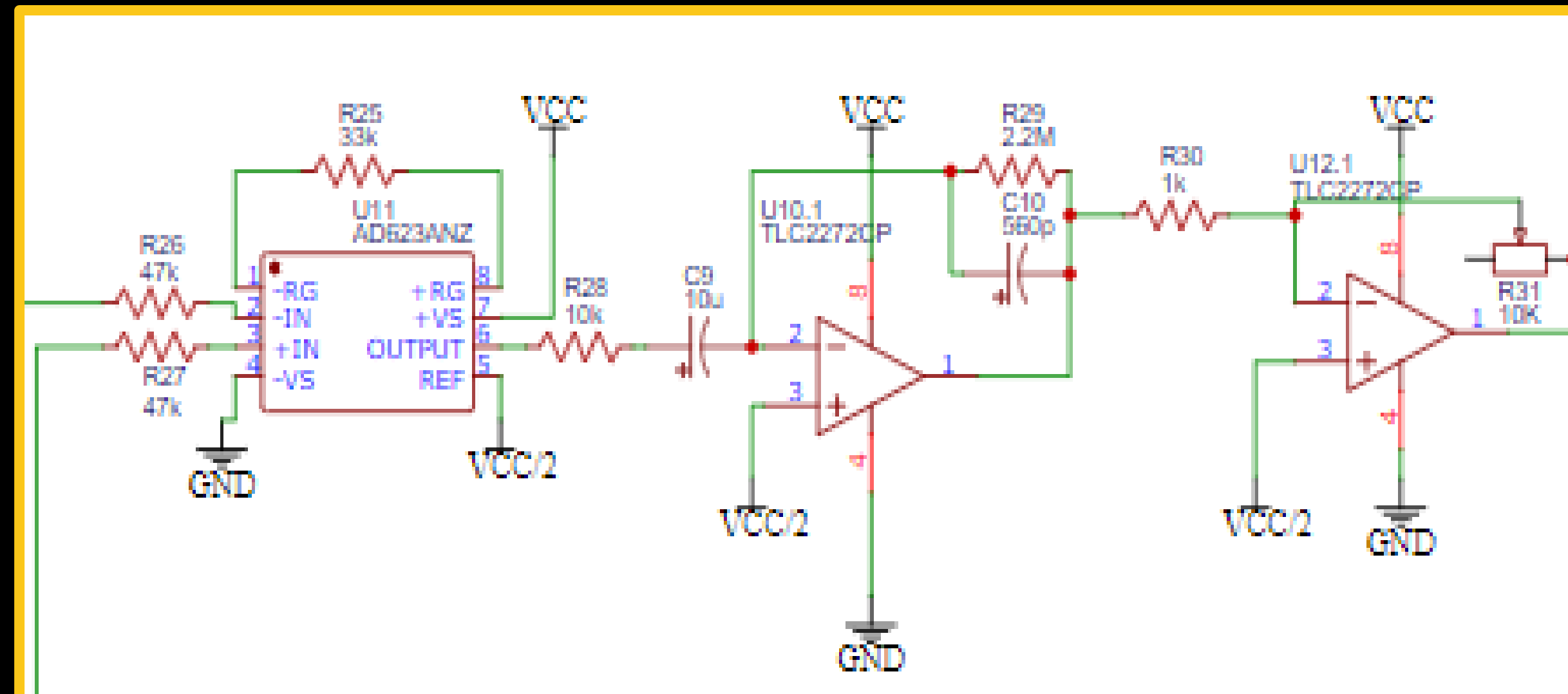
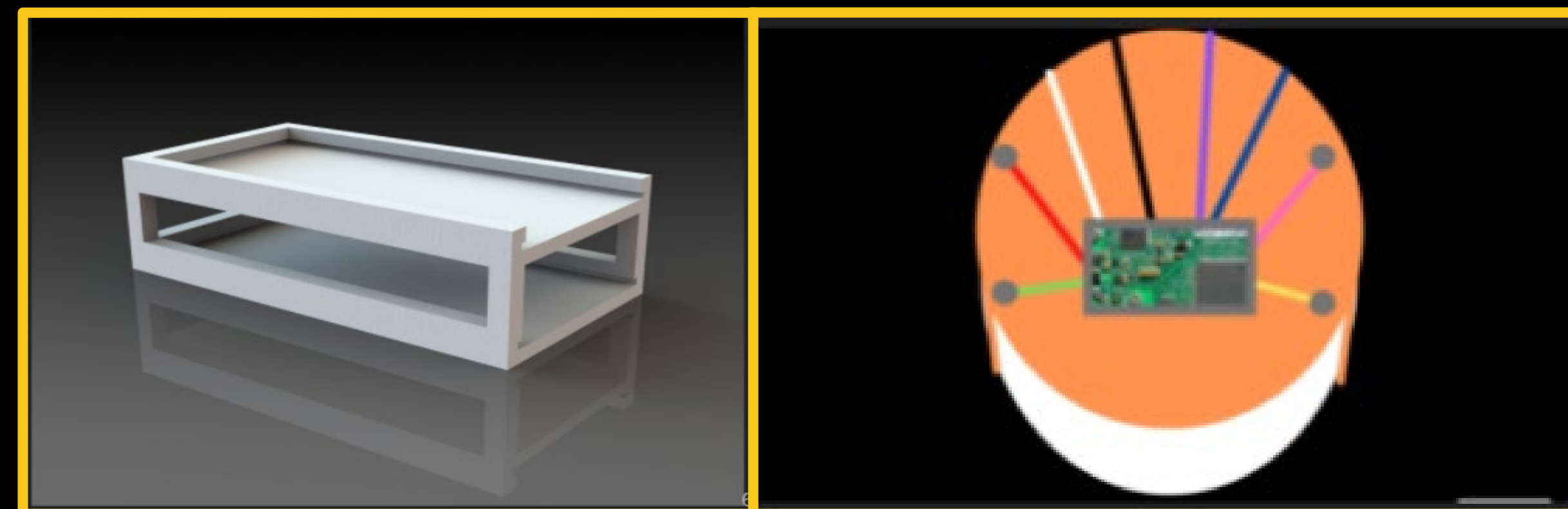
Ideal Cost: ~ \$100 to mass produce

- Headset: \$42
- PCB parts: \$95.75
- Latch: \$1
- Total Cost: \$138.75
- Easy for high school students to build
- Provides easy-to-visualize brain signals

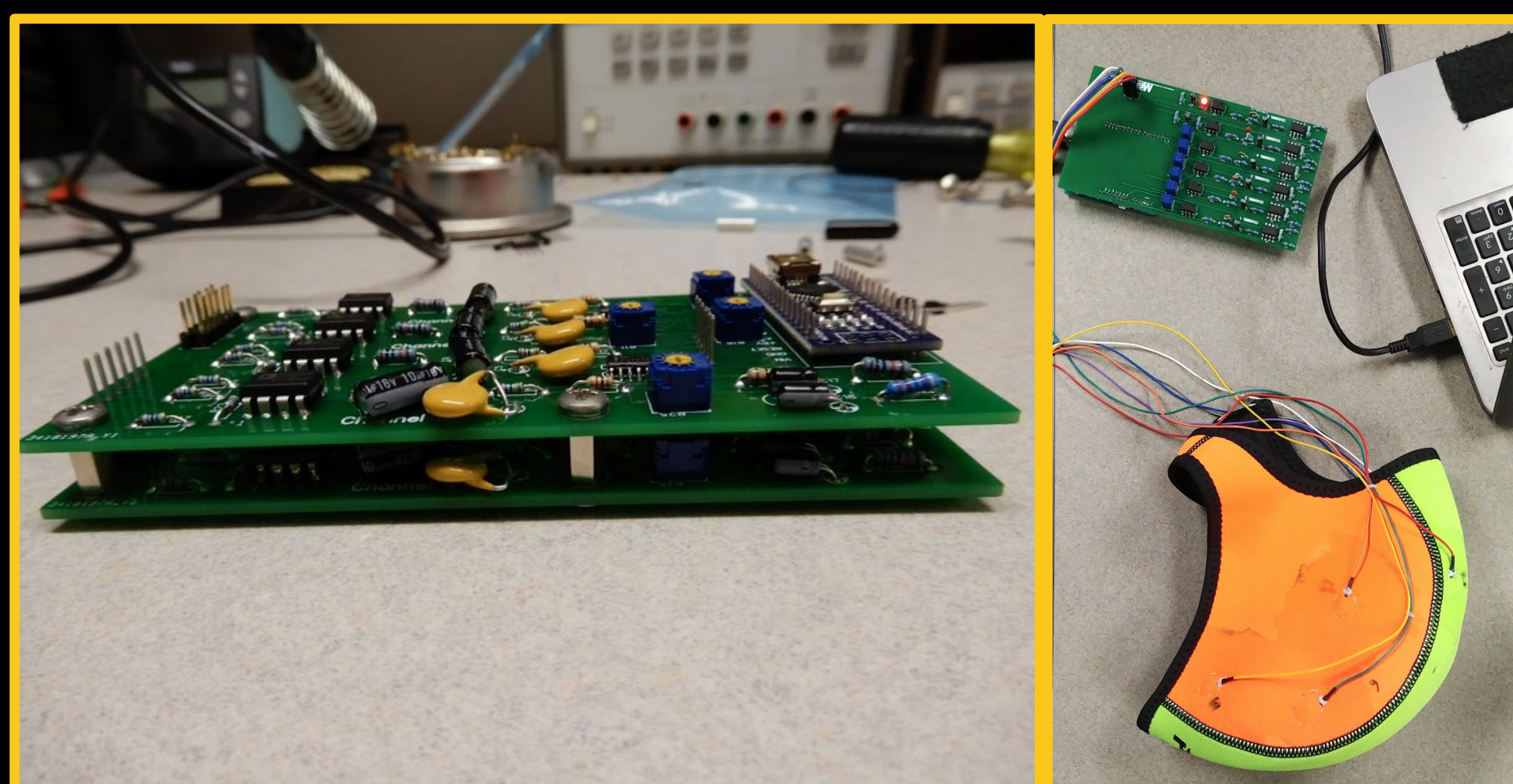
Summary + Recommendations

Our device is easy to construct and records signals well. Future improvements will include: Bluetooth, mounted circuit, and developed data visualization

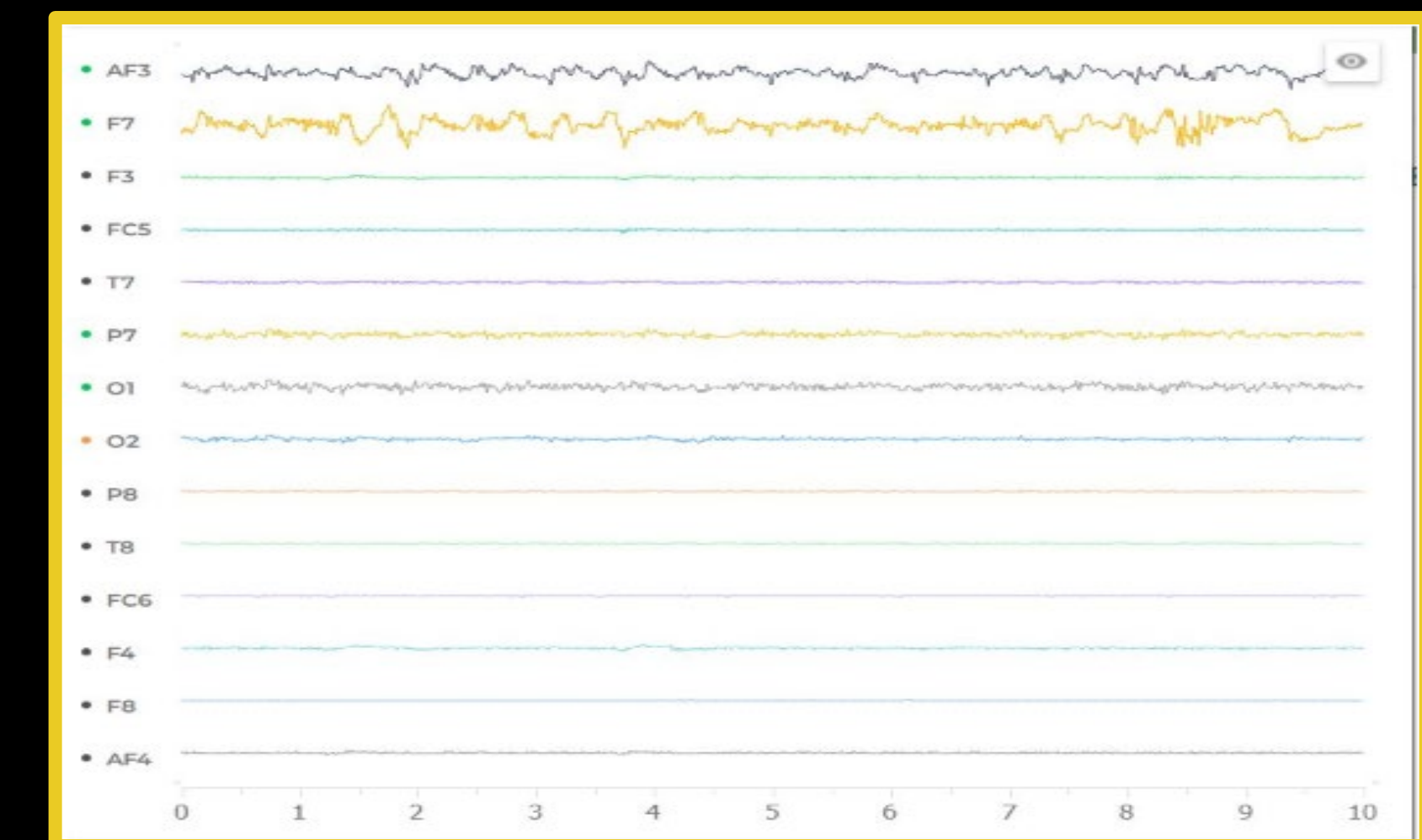
Concept Design:



Final Design:



Validation Testing:



Emotive EEG: blink test



Low Cost EEG: blink test



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