"Decoding Brain Waves with MATLAB®"
Activity – Decode Brain Waves by Hand

Introduction: In this activity, students will try to decode brain waves by hand. In the graph below, there are four minutes of brain wave data from one subject. Using two different colors, students should label time periods where they believe the subject's eyes were open or closed, based on their understanding of how to read the brain wave data. Then, students will build a computer program that can label the data automatically, test how it performs, and compare how their hand-labeling did relative to the computer predictions.

Activity: Grab two color makers. Choose one to label the brain wave data below as a period where you think the subject's eyes were open and the other to label the brain wave data as a period when you think the subject's eyes were closed. Fill in the blank legend to help you keep track.

Test Data to Label