Speech disorders are becoming increasingly common and often carry negative connotations. An estimated 17.9 million U.S. adults reported having had a problem with their voice in the past 12 months. Speech-related issues vary in origin and scope, ranging from hoarse voice to partial loss of speech due to brain damage. Speech therapy trains people who have difficulty communicating to develop stronger speaking capabilities by training the muscles used in speech. The availability of information regarding which muscles are and are not working would drastically improve the accuracy of diagnosis. The Pharyngeal Motion Detector will aid in the identification of muscle movements during speech, allowing speech therapists to design practices or exercises that result in the strengthening of weak muscle groups, and or assign existing exercises to clients