This research is an attempt to develop a drumming interface that awakens a shared sense of identity, even in non-musicians, through their participation in a musical performance session. In this thesis, “Shared Identity” refers to the way in which players are aware of each other, and feel a sense of belonging with other players.

When people watch a performer's musical session, sometimes a desire to play music is inspired even in those without musical experience. This desire comes from aspirations for self-expression and to share a sense of identity with others through playing instruments. Usually, a shared sense of identity through playing music requires much musical experience and technical skill. This research aims to create a playing environment wherein non-musicians can also thoroughly experience a shared identity through a musical session.

In addition to the auditory exchange via sound that occurs between musicians during a session, gestures, facial expressions, and air vibrations lead to exchange of visual and haptic information. Haptic experiences are considered to fundamentally and viscerally impact human sensitivities greater than auditory ones. However, when playing music with conventional instruments, vibration feedback is felt solely by the actual performer (excepting vibrations carried through air, flooring, etc.).

Based on related research, interactions between the senses have been revealed. Namely, hearing and touch link together to enhance stimulations, and tactile as well as auditory senses are important factors in rhythm perception. Additionally, in the previous study “Experiment of Kansei Interaction from the Viewpoint of Rhythm,” vibrations were shown effective in communicating the presence of others and rhythm information, thus indicating that vibration transmission is beneficial to rhythm perception. I’ll advocate hypothesis that “It valid for sharing identification that people transmitting sound and vibration each other during session.” it based on those related research and consideration. Based on the aforementioned research and considerations, in this thesis I propose the hypothesis: In a musical performance, aural (instruments’ sounds) and haptic (instrumental vibration) feelings experienced mutually by musicians are effective in creating a shared sense of identity between session players.

This thesis will evaluate whether players gain a shared identity through vibrations in a music performance session, which uses the drum interface Vibracion Cajon that I produced, based on the abovementioned hypothesis. As an axis for this evaluation, previous theses will be referenced, and establish the following: perception of one’s own music playing, consciousness regarding other players, enjoyment as a result of musical performance conscious of other musicians. Using the preceding evaluation axis as a basis, I verify the validity of the proposed hypothesis, and also suggest a new style of musical “session” using this drumming interface. Additionally, I consider player communication made possible by playing methods that share vibrations, as in the drumming interface proposed in this research.