

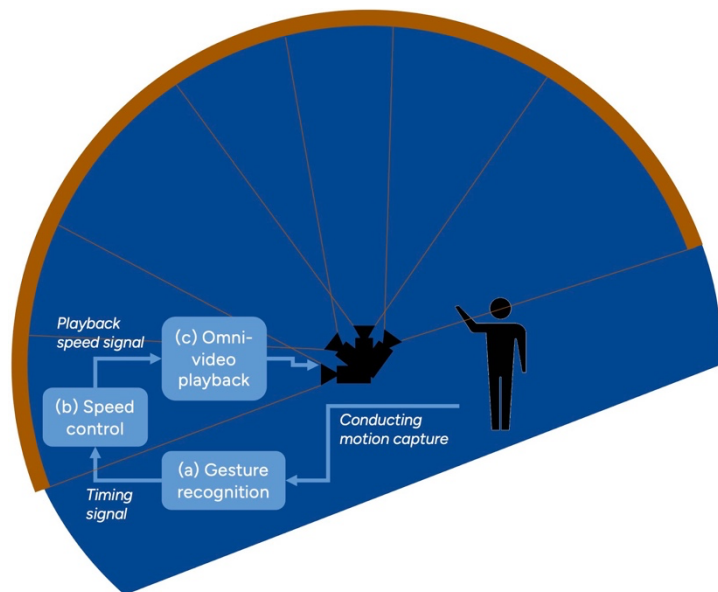
## Developing an immersive virtual orchestra conducting experience

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**Note that this project is directed towards KTH students. We are not able to take in external students from other universities.**

We are looking for an MSc student for an interdisciplinary collaboration with Tekniska Museet and its recently opened visualization dome, Wisdome Stockholm. The project is described below. Please contact Hedvig Kjellström if you are interested, describing your background and previous experience, and why you are applying to this project.

We are in the process of building an interactive installation in the new visualization dome Wisdome Stockholm at Tekniska Museet, where the museum visitor will get to lead a virtual version of the Swedish Radio Symphony Orchestra. The conducting gestures of the museum visitor is recorded via wearable motion capture, and then processed by a gesture recognition module, that in turn controls the playback speed of an omni-camera recording of the orchestra, which is projected on the 180° screen in the dome.



For this purpose, we have recorded the orchestra playing the start of Beethoven's fifth symphony, using an omni-camera and professional 16 channel sound. A PhD student at KTH is developing the gesture recognition module, and the visualization engine projecting the variable speed recording in the dome is developed by the production company IVAR Studios.

The task in the MSc project proposed here is to develop the installation itself, in collaboration with the KTH PhD student, IVAR Studios, and Tekniska Museet. This comprises the flow of how to get instructions beforehand when queueing, how to enter and start, but also gamification elements and choices about feedback etc during the interaction.

In order to carry out this project you need to have experience in Interaction Design and/or Interactive Graphics, but also very good programming skills, e.g. corresponding to studies in the CS or Media programs at KTH. If performed in a successful manner, the results will be publishable in an international peer-reviewed conference or journal.