

HCI-Project I Outline

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This Project is naturally splitted into three parts: basic work (Preparation), training deep learning model (Training) and integrating model to Android app (Integration). This outline will briefly introduce the work to be done in these three aspects:

- Preparation (collective work)
 - Define Gestures
 - determine the gestures to recognize (by group discussion)
 - Data Collection
 - record relevant motion data by all members (to ensure diversity)
- Training
 - Data Clear
 - get rid of vacillation
 - Model Training
 - fine-tune hyperparameters and effectively train the model
 - Model Optimizing
 - reduce the model size, in order to upload it to app
 - Model Exporting
 - freeze and export the model
- Integration
 - API Creating and Calling in Android Demo app
 - create APIs to interact with the uploaded model
 - Android Library Development
 - develop all this suit into a library

After discussion, detailed division of all the work mentioned above will be tagged onto outline.