**Gesture Recognition – Deep learning**

**Problem Statement:**

We need to develop a cool feature in the smart-TV that can recognize five different gestures performed by the user which will help users control the TV without using a remote. The following table consists of the experiments done to build a model to predict the gestures from the given data set.

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| --- | --- | --- | --- |
| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Throws Generator error** | **Crop the images correctly, try to overfit on less amount of data** |
| **2** | **Conv3D** | **Model not trainable as a lot of parameters** | **Reduce the size of the image/Reduce the number of layers** |
| **3** | **Conv3D** | **Accuracy: 0.21** | **Increase the amount of trainable data/ reduce the filter size** |
| **4** | **Conv3D** | **Accuracy: 0.38** | **Increase of Batch aSize and Epoch** |
| **5** | **Conv3D** | **Accuracy: 0.52** | **Reduce Cropping** |
|  |  |  |  |
| **Final Model** | **Conv3D** | **Accuracy: 0.52 Loss: 1.690** | **Got Minimum Loss** |