Air Drums

We aim to create a program which would use the concept of image processing to interpret actions by the user (“drumming”) to produce sounds.

The user would have a pair of drumsticks with coloured ends which would be detected by the computer and the coordinates of the end would be derived. If these coordinates match the coordinates of that of surface of a drum sound corresponding to that drum would be heard.

Tentative schedule:

Week 1&2 – Get computer to recognise tips of the sticks.

Week 3 –Get coordinates of the ends of the sticks while they are moving

Week 4 –Sounds corresponding to different coordinates (different drums)

Week 5 –Get speed at which stick’s end moves, thereby ensure different intensities of sound for different speeds.

Components:

Web camera may be required if greater field of view is needed.

We expect to learn concepts of Image processing and hope to proceed to depth sensing gesture control.

Team: Bazinga

Members:

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