

CSCI 3010U Project Proposal: Mosh Pits

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This project will involve a simulation of a typical mosh pit. People within the mosh pit (moshers) will be represented as particles as opposed to rigid bodies. The simulation will involve both active moshers and passive moshers. Active moshers will actively try to push other active moshers around, and passive moshers will try to not move & stay outside of the current mosh pit. The visualization will involve moshers being different colors based on their state.

There are a large portion of stretch goals, which include additional functionality that may or may not be implemented due to both rate of progress and required time commitments. These stretch goals include the following, in no particular order:

- Additional mosh pit types (circle pits, dance pits, walls of death. EDM vs Metal)
- Moshers switching between active and passive, potentially based on some measure of stamina
- Varied mosher stats (mass, intoxication, aggressiveness, etc...)
- An event of crowd surfing
- An event of a mosher falling over
- Various songs (as BPM (beats per minute) can influence the nature of a mosh pit)

An important distinction to make is the differences in metal mosh pits and EDM (electronic dance music) mosh pits. EDM mosh pits are far more structured than metal mosh pits, as EDM tends to follow more of a build up / drop structure, while metal follows a more chaotic structure. Aside from typical research methods, research for metal mosh pits is primarily based on personal experience, while research for EDM mosh pits is primarily based on consultation with active members of the EDM community.