| Speech | Leap motion controller |

Speech Input | Gesture Input

Speech Toolkit (Google Cloud Speech API) | Leap Gesture Toolkit

features

Multimodal Model

maps to

Concrete System Command

Google Slides API call/s

triggers

Slides UI change

output

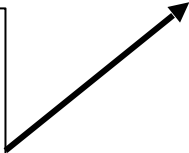# Implementation Plan

May use MP3's speech recognition instead of Google Cloud Speech API

**A classification model mapping
{T, G} → system command**
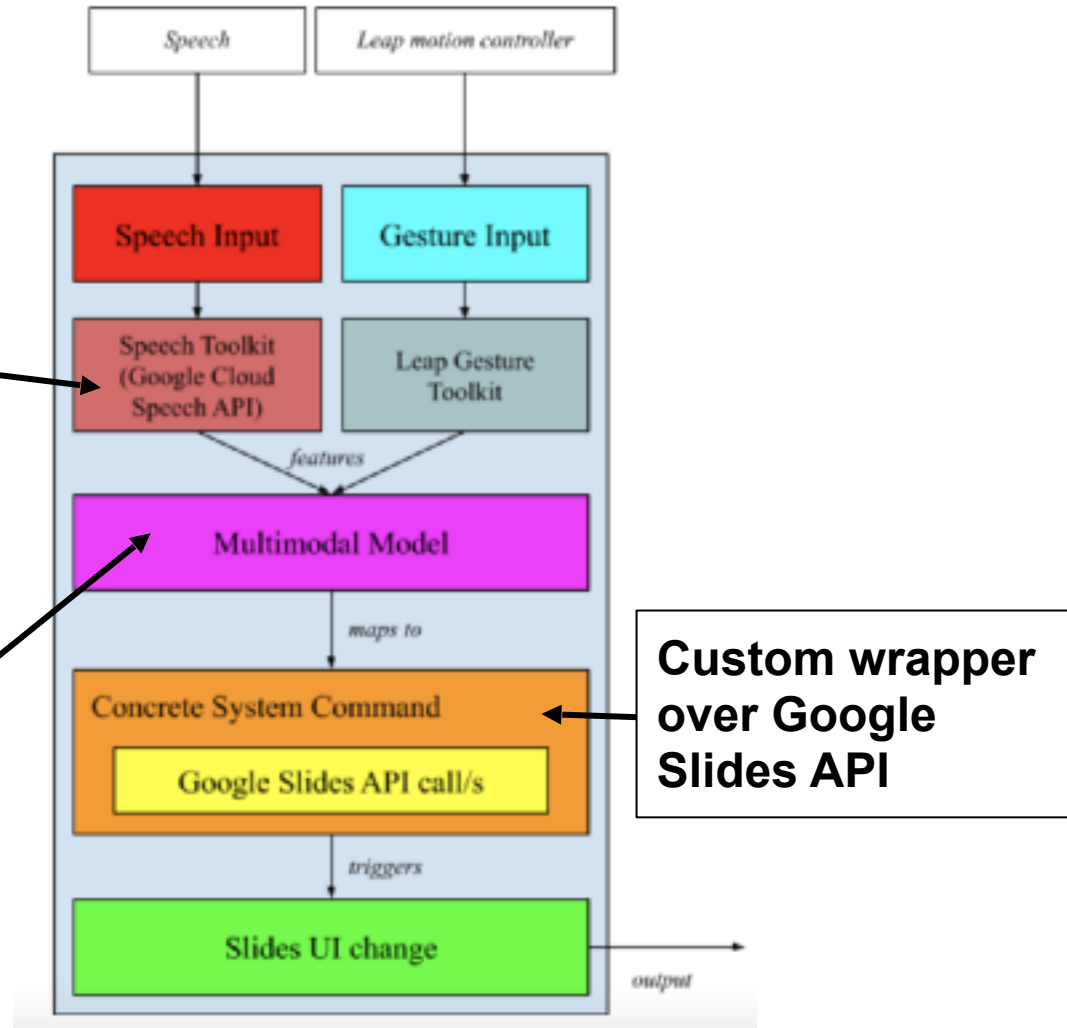
T = transcript
G = gesture

Custom wrapper over Google Slides API

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Evaluation

The system will be tested by us and 3 naive users in a variety of classrooms

Quantitative

Goal: > 80 % accuracy

Accuracy =
(2*precision*recall) /

(precision + recall)

Latency: reaction < 1 sec

Qualitative

User surveys

- Gesture and speech intuitiveness
- General feedback