

6.111 Final Project Abstract

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Abstract:

This project interfaces a camera with the 6.111 Labkit in order to recognize and interpret facial features, and then use those features as a control for an audio/visual application. First, the system uses an algorithm to recognize which part of the incoming image corresponds to a human face. The system isolates specific features and parts of the face, including the eyes, nose, and mouth. The characteristics of each facial section are then compared to predefined aspects of a neutral face. The system takes into account each of these features to detect basic emotional qualities on a one-dimensional scale from sadness to happiness. The emotional output is then used to control an audio/visual application.