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6.111 Final Project Checklist
Sound Blocks

☐ **Camera Reader/Identify Modules:** this module takes the video feed from the camera and determines the location of each colored block.

Test: Display on the monitor colored squares that represent the blocks which have been successfully identified by the digital system.
(If Time Permits): Display on the monitor the colored squares on top of the camera image of the blocks.

☐ **Audio Module:** when a colored source block is present, this module plays the corresponding sound file.

Test: Show that the correct audio file gets played when the corresponding colored block is present, and stops when the block is not present. Show that the audio restarts from the beginning when the block is put back onto the table.

☐ **Connections Module:** this module associates local-effect blocks with a particular source block.

Test: Display on the monitor colored squares with colored lines between the blocks to represent the "connections" between blocks.
(If Time Permits): Use the Visuals module to display the separate audio waveforms in the system, and test that each source block sound is being modified by the local-effect block(s) connected to it.

☐ **Orientation Module:** this module determines the magnitude of the local-effect to apply to a source block based on the distance the local-effect block is from the source block.

Test: Demonstrate that by moving the local-effect block further from the corresponding source block, the amount of effect is either increased or decreased.
(If Time Permits): Instead, demonstrate that by rotating the local-effect block the amount of effect is either increased or decreased.

☐ **Effect FSM's:** the effect FSM's control the modification of a source block sound when a local-effect block(s) is placed near a source block.

Test: Show that the audio gets modified when an effect block is placed near a source block by using simple generated sounds.

☐ **(If Time Permits) Visuals:** the visuals will consist of the monitor displaying each separate source block audio waveform with its effects applied to it, as well as the total audio output waveform.

Test: Display the visuals on the monitor. Demonstrate the audio waveforms are accurate and that they are being modified appropriately.