Flow Chart for Voice Sync Light Effects Program

Processor Reset

Processor Initialization

Initialize Detection Threshold

Take A/D Reading of Audio Input

Set A/D Converter to Threshold Input

Subtract Bias Value from Audio Reading

Take Absolute Value of Result

Set A/D Converter to Audio Input

Take A/D Reading of Threshold Input

Use Threshold Reading to Look up Upper and Lower Thresholds

Multiply Absolute Value Reading by 2

Use Result as the new PWM Duty Cycle

Result Greater than Current Threshold?

NO

YES

Set Digital_Output High

Set Digital_Output* Low

Set Lower Threshold as the Current Threshold

Set Digital_Output Low

Set Digital_Output* High

Set Upper Threshold as the Current Threshold