THIS IS AN EXAMPLE PROPOSAL
This is a proposal for building a simple “flashing light gizmo” that John made when he was 12

Proposal for the construction of a “Flashing Light Gizmo”

Summary

This proposal describes the materials needed, procedure, and value added by the construction of the “Flashing Light Gizmo” or FLG. The FLG will flash at different speeds depending on the position of a potentiometer. The projected cost of development for this device is .

Objectives

There are two main objectives of this project. The first is to create a functional circuit that via software written for the microcontroller will allow the light to flash at different speeds depending on the position of a potentiometer (an element of the circuit).

The second objective is to write software that will cooperate with the circuit and will change the rate that the light blinks at based on the position of the potentiometer.

Procedure

The first step in developing the FLG will be checking to make sure each of the individual elements works. This will entailed testing the LEDs, checking to make sure that the microcontroller is functioning properly based on example code from the manufacturer, and testing that the potentiometer is being properly interpreted by the microcontroller.

Once it has been established that all parts are working the next step will be to establish the proper circuit on the breadboard. The most important connections will be the connections to make sure that signal is being sent from the potentiometer to the microcontroller and that the circuit containing the LED is infact complete to the proper pin determined in the software.

When the circuit is complete the software will need to be written making special note of the pins where the connections to the microcontroller are made. Once the software is complete the FLG will be complete!

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Bill of Materials

Item	Reason For Purchase	Amazon URL
Potentiometer	**The part that will allow the user to change the**	https://www.amazon.com/Resistor-Indicator-Variable-Potentionmeter-Resistance/dp/B013ARWXYK/ref=sr_1_1?s=industrial&ie=UTF8&qid=1470955067&sr=1-1&keywords=potentionmeter
Arduino	**Microcontroller necessary for the control of the light**	https://www.amazon.com/ARDUINO-A000066-Uno-DIP-1-5/dp/B00CBZ4CII/ref=sr_1_3?s=industrial&ie=UTF8&qid=1470955334&sr=1-3&keywords=arduino
Wiring and Breadboard	**Connect and wire the light to the arduino and organize it**	https://www.amazon.com/Beginner-Breadboard-Resistor-Capacitor-Potentiometer/dp/B00Q2CRM24/ref=sr_1_2?s=industrial&ie=UTF8&qid=1470955110&sr=1-2&keywords=breadboard+kit
LEDs	**The light for the FLG**	(Included in Wiring and Breadboard)

Value Added

From building the FLG I’d gain a greater understanding of the way that potentiometers work and how to program around them. I’d be able to share this new understanding of potentiometers with viewers of my video so that they could gain a similar understanding to mine and have a jumping-off point for any projects where they are using potentiometers.