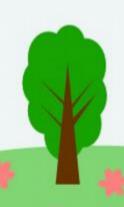# Controlling an Arduino LED with Forth commands in a spreadsheet

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What was used

- Arduino Uno

- Arduino IDE

- Creole Forth for Python

- LibreOffice Calc

- Linux (Raspbian and Mint)

Steps

- Upload the ledonoff2.ino sketch to the Arduino Uno.

- Open LibreOffice Calc. At least for Linux Mint, has to be run as root : sudo libreoffice or sudo libreoffice –calc

- Open cfpy_libreoffice_example.ods

- On Sheet1 is your user interface.

- Column A has the description, B has the Forth commands to run, and C has the cells to be marked with "x" to run when the button is clicked.

Poor man's user interface

Description	Code	Run the X
Say hello primitive	HELLO	
Say tulip primitive	TULIP	
Test – do what you want here	TEST	
Turn the LED light on	1 LED13	
Turn the LED Light off	0 LED13	

Under the hood

- Code run is in the CreoleForth.py script. It has glue code to run commands in the spreadsheet cells when the button is clicked.

- The CreoleForth.py script is placed in the /usr/lib/libreoffice/share/Scripts/python folder for Linux/Mac, {Installation}\share\Scripts\python for Windows.

Why do it

- It's simple to set up ugly but usable user interfaces with a spreadsheet.

- Spreadsheets make activities such as data collection/processing easy.

- To harness the capabilities of other languages. In this case, it's Python.

Why use LibreOffice

- It's available on Linux/Windows/Mac

- It's free

Questions?

- Files for this project are available at https://github.com/tiluser/cfpy_oo