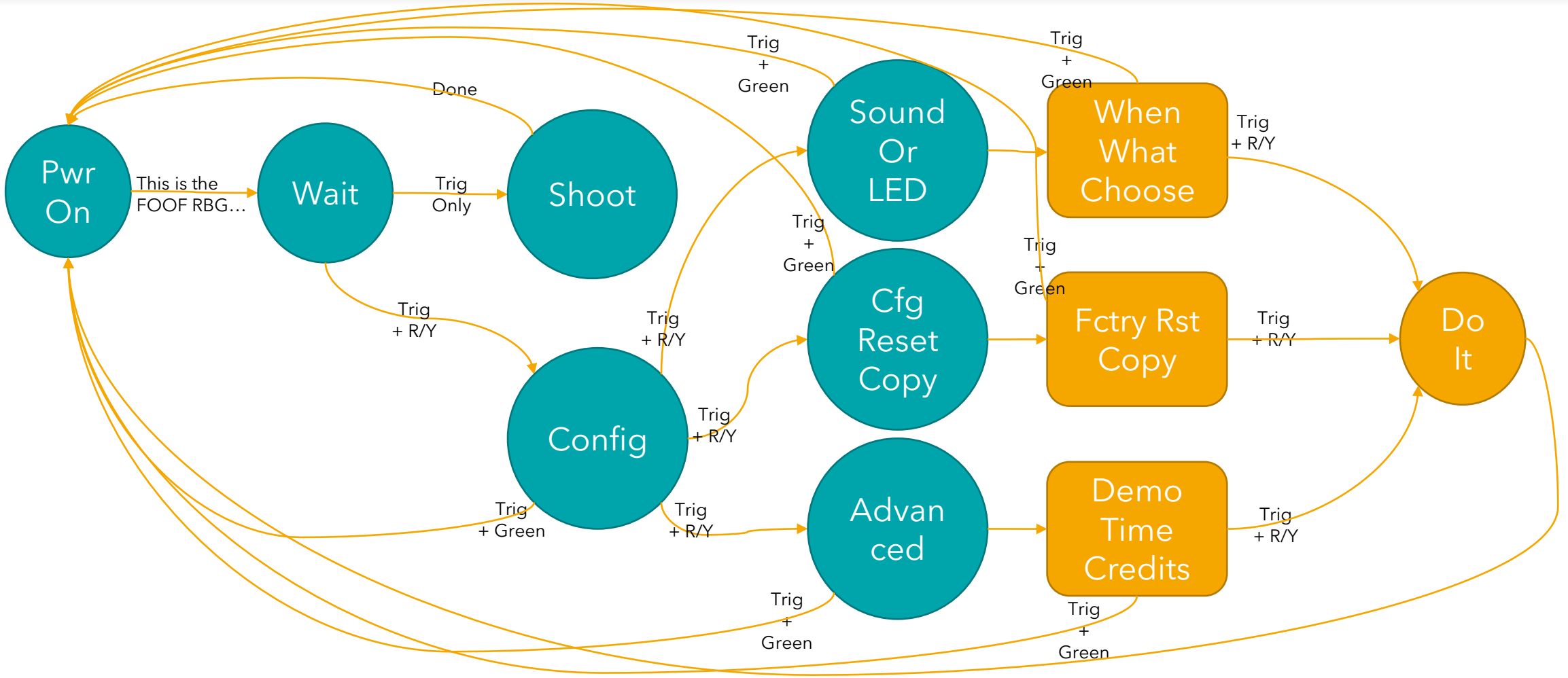
… the AWESOME

Build FOOF Rubber Band Gun SW

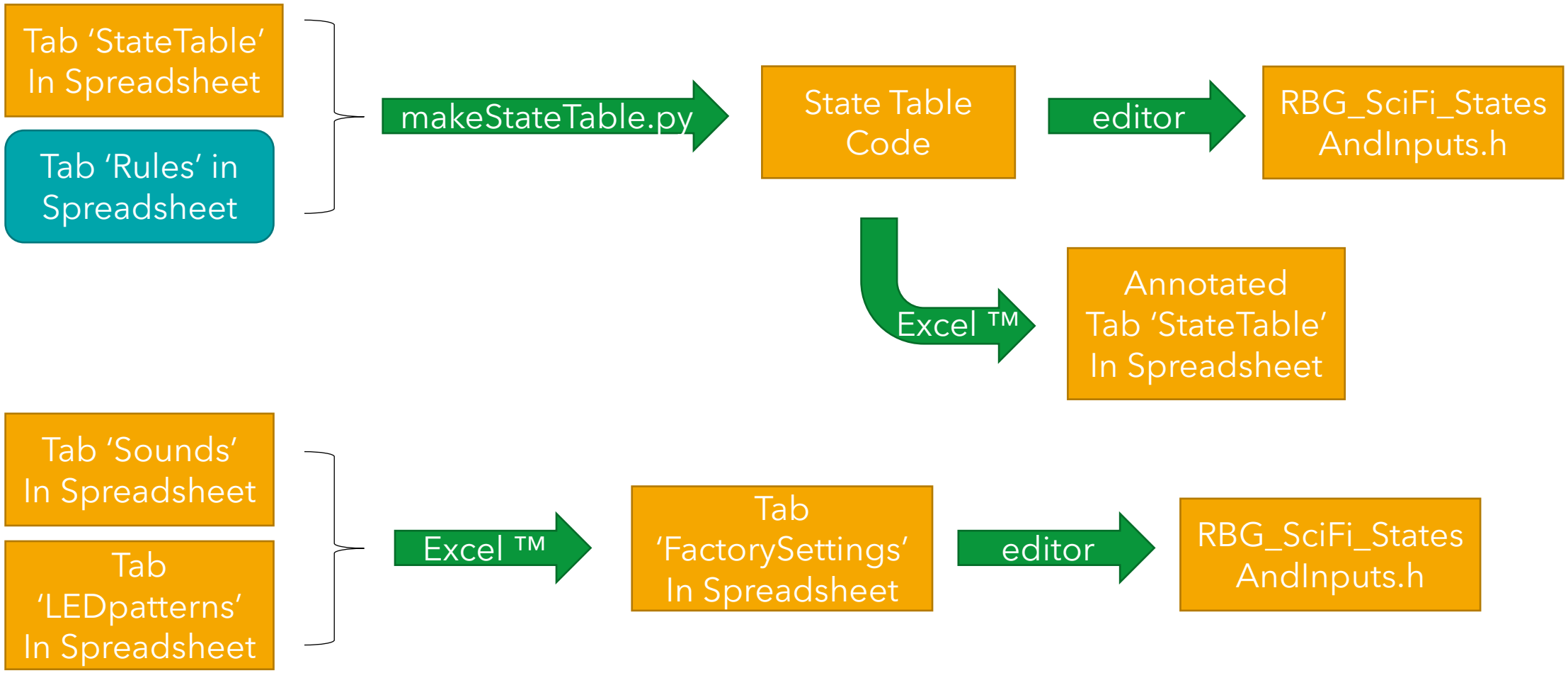
https://github.com/Mark-MDO47/RubberBandGun

24 Oct 2020

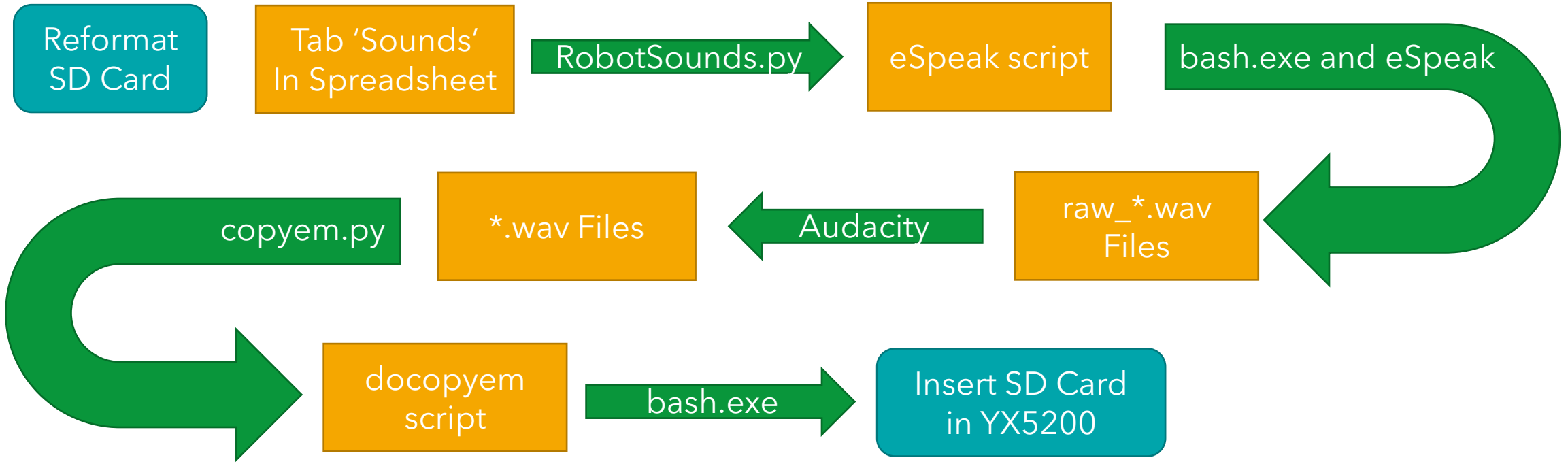
FOOF Rubber Band Gun Operation



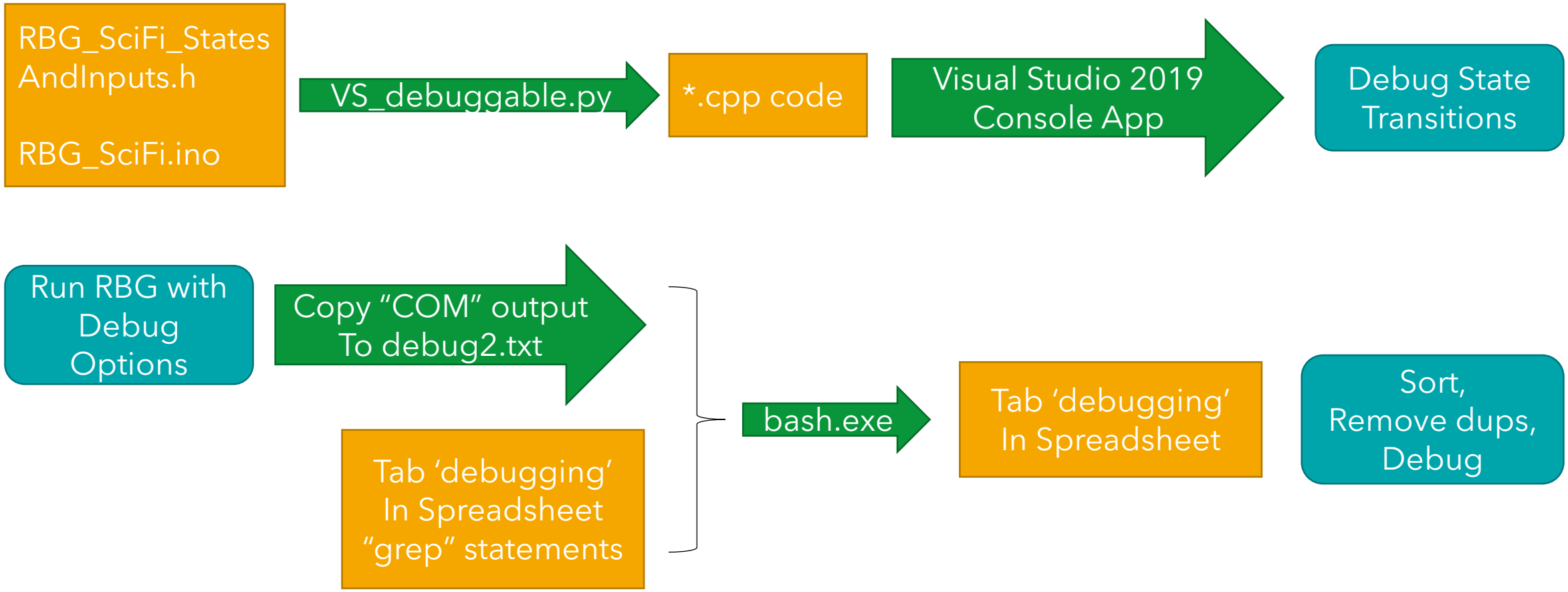
FOOF Rubber Band Gun
State Machine and Factory Settings



FOOF Rubber Band Gun
eSpeak and Sound Files



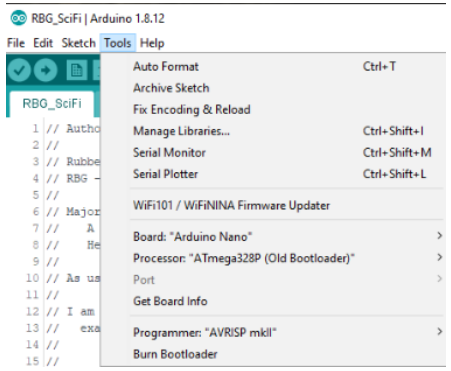
FOOF Rubber Band Gun Debug Tools



FOOF Rubber Band Gun
RBG_SciFi.ino Arduino Setup

https://support.arduino.cc/hc/en-us/articles/360016785580-Error-avrdude-stk500-getsync-attempt-X-of-10-not-in-sync-resp-
Error: avrdude: stk500_getsync() attempt X of 10: not in sync: resp=

- Board “Arduino Nano”
- Processor “ATmega328P (Old Bootloader)”
- Programmer “AVRISP mkII”



1.If your Arduino NANO was purchased earlier than 2018 you have the older official version of Nano. In this case Select *Tools > Processor > ATmega328P* and select: **(Old Bootloader)** and try to compile your sketch again. It is also recommended to update Arduino AVR Core 1.16.21 or later through Boards Manager.

2.If you have the newer version of the Nano board (manufactured in 2018 or later), make sure you have **Arduino AVR Boards 1.6.21** or newer installed. Check this in Arduino IDE: *Tools > Board > Boards Manager* and select *Tools > Processor > **ATmega328P***.

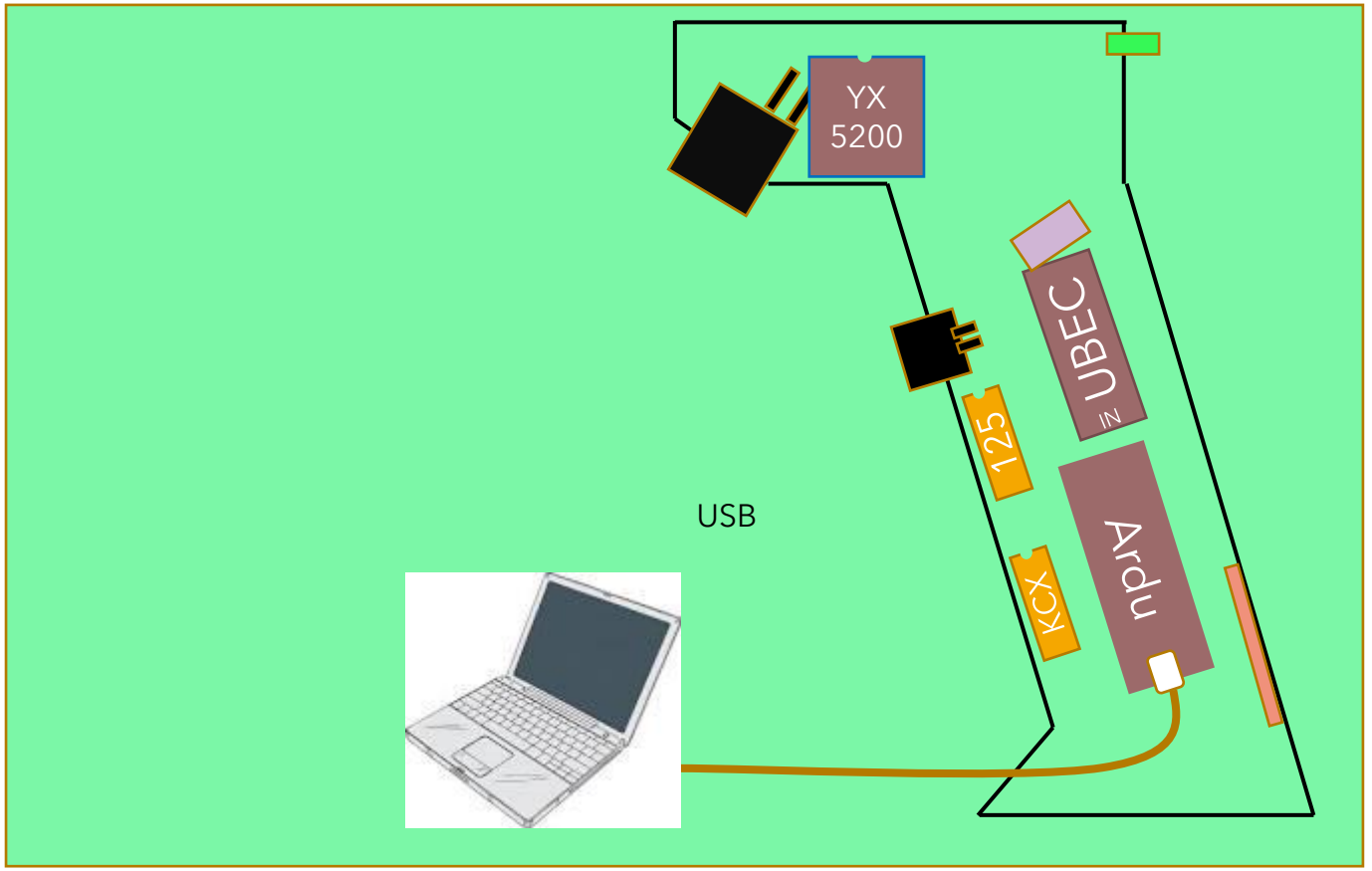
FOOF Rubber Band Gun
RBG_SciFi.ino programming

RBG_SciFi.ino

Take the clear acrylic cover off, pull back the barrel/solenoid/motor assembly as if loading, turn the RBG power on, plug in the USB Male Mini 5 Pin to the Arduino NANO and the other side to your computer, and program. Reverse steps to disconnect.

NOTE: when the RBG power is on while the USB connector is connected and periodically resetting the Arduino, it continuously resets and pulses the solenoid/motor circuit at an interval of about 1.5 seconds. This might eventually damage the solenoid/motor or its circuitry, so it is important to pull back the barrel/solenoid/motor assembly before powering on.

NOTE: The reason I suggest powering on the RBG while programming is so that the entire RBG is not being powered through our inexpensive clone Arduino Nano.



FOOF Rubber Band Gun
Programming Arduino for Bluetooth

Connections to program the KCX-BT-EMITTER

- See RubberBandGun_wiring.pdf
- See ProgrammingArduino_SerialMonitor_SampleOutput.pdf
- See ProgrammingArduino.ino