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Final Project: Alpha

Pseudo Code

1. For SawTooth WaveForm

Step 1 Convert Analog To Digital Value from Potentiometer
Step 2 Input this value in for the period length of the timer
Step 3 If The period Length OverFlows
Jump to ISR
;;Value will start at 0 in our setup
ISR: Convert Value to Analog and Output it
Increment this Value

2. For Triangle Wave

Step 1 Convert Analog to Digital Value from Potentiometer
Step 2 Input this value in for our period length of the timer
Step 3 If the period length OverFlows
Jump to Loop
;;;again Value starts at 0 in our setup
Loop: If Value = 256
Jump to Loop2:
Else
Convert our value to Analog and Output it
Increment our Value

Loop2: If Value = 0
Jump to Loop
Else
Convert our Value to Analog and Ouput it
Decrement our Value

3. Sin Wave

Step 1 Convert Analog to Digital Value from Potentiometer
Step 2 Input this value in for our period length of the timer
Step 3 If the period length OverFlows
Jump to Ouput

Output: pull Value from the stack

OurOutputValue = Sin(Value) ;;; Will create a look up table in setup for this function

OutPut OurOutputValue

Increment Value

Push Value back onto the stack

Schematic