1. Read EEPROM for stored values from last time
2. Initialize the LCD, Welcome msg and SW version.
3. Main loop
   1. Watch for button press flag
   2. Watch for foot pedal flag
   3. Read battery voltage every 1-2 sec with IIR
      1. If low, flag alarm
   4. Weld action on foot pedal press (single shot, using if last not = current)
      1. Write to LCD – Welding
      2. Pulse for XX sec
         1. On last pulse, read battery voltage and store for real time health.
      3. Repeat for X Cycles
      4. Write to LCD – Done
   5. If select button – enter adjust mode
      1. Set LCD to cursor flash mode
      2. Up and down adjust - Set Pulse ms (limit values to X and Y. IF value is over max, set to Max.)
      3. If L/R move to adjust cycles number
         1. Up and down adj Cycle numb
      4. Update LCD
      5. Setting have changed, write to EEPROM.
      6. Select to exit
   6. If long hold on select button – enter advance menu
      1. Enter blocking while loop
      2. Clear LCD
      3. Future space for any deep menu options, button remap
      4. Select to exit, end while.
   7. Battery health check
      1. Monitor the Weld voltage
      2. Monitor the float voltage
      3. Update LCD if errors…
   8. // I don’t think we need this but typically put in a Post to LCD every 250ms (not every loop)
      1. Only write is if a value has changed (example user adjust the MS, last msPulse != current msPulse)
   9. Debug (every 1 sec)
      1. Debug to serial here