# Firmware Update Tool

## Aim

To develop a piece of PC software which can be used to deploy Enersol software onto relevant devices.

## Device List

* S77
* S77A
* S77B
* S78
* S78A
* S78B
* S79
* AWPSIT
* ELT+
* VLT
* S18C
* S16
* Pump Force Device

## Microcontroller Types

* Arduino Uno
* Arduino Mega 2560
* Arduino Nano Every

## Implementation

Currently I manually deploy the Enersol software onto new devices. This involves a process of generating a Serial Number, then with the Arduino IDE we flash the serial number software, any other necessary files (Eeprom Data) and then the Device Software. Once this is done, we then Update the touchscreens before flashing the Bansk for uSD reading. Then we upload the Screen Software to a uSD card all using the 4D Systems suite. Ideally, I would like to automate this process. A user generates a new device and selects what kind of device, The system then flashes all the necessary files to the Arduino and Screen with the user only needing to physically connect them. During the process a serial number is generated and a new record is placed into the device log with the software versions and generation date.

## Pre-Identified issues.

* Product Register. Currently a completely fucked Excel spreadsheet. Should this become a database?

## Questions to be addressed

* Management and storage of the Bin files? Where and who will do this?

## Current Progress

* 11/09/2023 An application has been made which allows the user to create a serial number for a new device. Currently it uses a testing Product register file which is similar but different from the currently used one. The Current Product register is a nightmare. Josh made it incredibly complicated and