Inputs

- TC ANALOG
- MODE ANALOG
- ENGINE START DIGITAL
- MOTOR START DIGITAL
- ENGINE RUNNING CAN
- RTD CAN
- BUZZER_ON CAN
- CPBRB DIGITAL
- RPM CAN
- SOC CAN
- COOLANT TEMP CAN.

+ AMS_STATUS CAN
+ IMD STATUS CAN

Outputs

- MODE
- TC
- ENGINE START
- MOTOR START
- CPBRB STATUS

} CAN

- RPM
- COOLANT TEMP

} LIGHTS

- SOC

+ AMS STATUS
+ IMD STATUS
+ ENGINE BUTTON BACKLIGHT
+ MOTOR BUTTON BACKLIGHT

CAN DATA

- CUSTOM INPUT ID FROM MABX: @ ~ 5Hz.

~~BITES~~

BYTES	VALUE
1-2	RPM
3-4	10. COOLANT TEMP
5	SOC
6	ENGINE RUNNING
7	READY TO DRIVE
8	BUZZER ON

- CUSTOM OUTPUT ID TO MABX: @ ~ 5Hz.

BYTES	VALUE	FORMAT
1	MODE	INDEXED 0-5
2	TC	0→100
3	ENGINE START	0-1
4	MOTOR START	0-1
5	CPBRB STATUS	0-1

PROGRAM FLOW

- INITIALIZE VARIABLES.
- SETUP LIGHTS
- SETUP CAN:
  - ↳ FILTER TO INPUT ID
- LOOP:

GATHER INPUTS:
- ↳ CHECK IF CAN MESSAGE AVAILABLE
  - UPDATE INPUT PARAMETERS
- ↳ GET ANALOG INPUTS AND GET IN OUTPUT FORMAT
- ↳ CHECK IF BUTTONS CHANGED STATE
  - UPDATE PRESSTIME
- ↳ CHECK IF BUTTON PRESSED LONG ENOUGH TO TRIGGER
  - UPDATE BUTTON STATE

LED OUTPUT:
- ↳ CHECK IF ENGINE IS RUNNING
  - CHECK IF RPM TOO HIGH
    - ↳ RECORD SWITCH TIME
    - ↳ IF ON/OFF TIME > DELAY, SWITCH STATE
  - OTHERWISE, DISPLAY RPM
- ↳ IF ENGINE NOT RUNNING, CLEAR LEDS.
- ↳ DISPLAY SOC.
- ↳ DISPLAY TEMPERATURE
- ↳ SEND UPDATE TO ALL LEDs.

CAN OUTPUT:
- ↳ CHECK IF CAN_MESSAGE OUT FREQUENCY HAS PASSED.
  - FORMAT GATHERED INPUT ~~ADD~~ AND SEND OUT.