RGB LED Mood Light #101 Manual

- When the PIC is first powered on after programming, it should start running the first RGB sequence found. If you're using the original sequences supplied with the code here it will run a sequence of fading red thru blue thru green repeating.

- User control of the RGB Driver is done using the S1 switch which performs multiple functions as described in the following section**.**

  Single press to Hold / Run current sequence
  You can press S1 at any time to stop the sequence running and hold the colour being displayed at that moment in time. Pressing S1 again will start the sequence running.

  If the controller is powered off while in the hold state when it is next powered on it will remain in the hold state displaying the same colour.

  Double press to Select Next Sequence
  (press S1 twice less than 0.5 second apart; think 'double-click' computer mouse button)

  Step through all available sequences. When the last sequence has been reached it will go back to the first available sequence. Each time the S1 switch is 'double clicked' the RGB LED PWM values are set back to 0 (LEDs off) and the new sequence will start running.

  When stepping through the sequences it always starts each new sequence in the Run state, even if it was previously in a Hold state

  (the last sequences is indicated by 3 short blinks of the blue and green LEDs repeating)

  Press and hold to enter / exit sleep state
  Press and hold S1 switch for about 1.2 seconds to put the PIC into sleep mode. Once in sleep mode, press the S1 switch for about 2 seconds then release it to wake the PIC from sleep. If the S1 button isn't held for two seconds the PIC returns to sleep

- About 10 seconds after the S1 switch is last pressed the currently selected sequence number, RGB colour values and Hold state are saved to non-volatile EEPROM memory. When the RGB LED driver is next powered on, the saved sequence number is read back and will automatically start running the sequence. If it was in a Hold state at power off it will power on and remain in the 'Hold' state until S1 is pressed again.

- Anytime the PIC is put into sleep mode by holding S1 switch down, the currently selected sequence, displayed colour and Hold state will be saved to EEPROM.