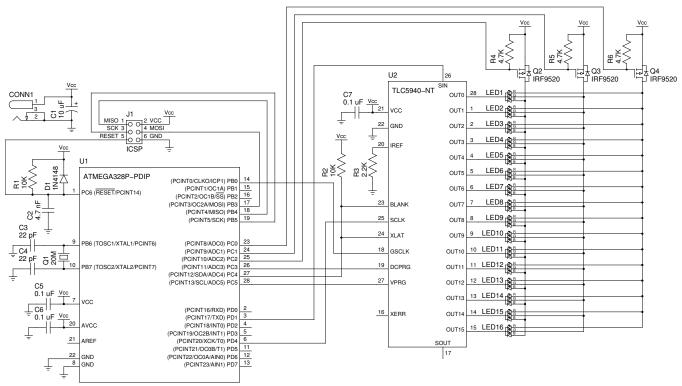
https://github.com/artcfox/tlc5940



Fixed pins: GSCLK (PB0), SIN (PD1), SCLK (PD4)

Remappable pins: BLANK (PC4), XLAT (PC4), DCPRG (PC3), VPRG (PC5), ROW0_PIN (PC0)

ROW1_PIN (PC1), ROW2_PIN(PC2)

Optional pins (see documentation): DCPRG (PC3), VPRG (PC5)

Restricted pins (see below): ROW0_PIN (PC0), ROW1_PIN (PC1), ROW2_PIN (PC2)

Pins marked "remappable" in the above list may be remapped to unused pins, or swapped with other remappable pins in the Makefile configuration.

All multiplexing pins in use (ROW0_PIN, ROW1_PIN, and ROW2_PIN) must belong to the same

Makefile configuration: TLC5940_N = 1 TLC5940_ENABLE_MULTIPLEXING = 1
TLC5940_MULTIPLEX_N = 3
TLC5940_SPI_MODE = 1 BLANK PIN = PC4 XLAT_PIN = PC4 DCPRG_PIN = PC3 VPRG PIN = PC5 ROW0_PIN = PC0 ROW1_PIN = PC1 ROW2_PIN = PC2

For optimal performance, BLANK_PIN and XLAT_PIN should belong to the same PORT, and XLAT_PIN should belong to the same PORT as the multiplexing pins (ROW0_PIN, ROW1_PIN, and ROW2_PIN).

R1 is optional, but protects against accidental resets due to noise. D1 is optional, but provides ESD protection for the RESET pin.

C2 is optional, but provides additional noise protection for the RESET pin. (If debugWire or PDI is being used, C2 cannot be present.)

Q1, C3, and C4 are optional if the fuse bits are changed appropriately to use the internal oscillator.

LED1-16 are common cathode RGB LEDs

The IRLML9303 is a much better choice for Q2, Q3, and Q4, but it is only available in a surface