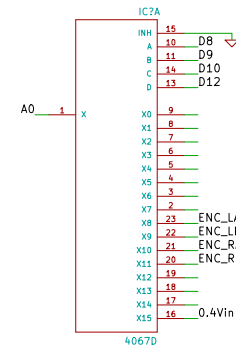


Check Polarity of connectors!!

Minimize track length between pins 1 and 5!!!



The figure shows a detailed schematic of the encoder interface. On the left, four identical encoder modules are shown, labeled ENC\_LA, ENC\_LB, ENC\_RA, and ENC\_RB. Each module consists of an IR LED (R7), a phototransistor (PT480F), and two output pins (Q1, Q2). The outputs are connected to a 5V supply through 2.2K resistors (R2). The microcontroller's I/O pins are connected to the Q1 and Q2 pins of each encoder. In the center, the L293D motor driver is shown, which has two inputs (IN1, IN2) and two outputs (OUT1, OUT2). The inputs are connected to the microcontroller's I/O pins, and the outputs are connected to the motor terminals. The L293D is powered by a 5V supply (VCC1, VCC2) and ground (GND1, GND2).