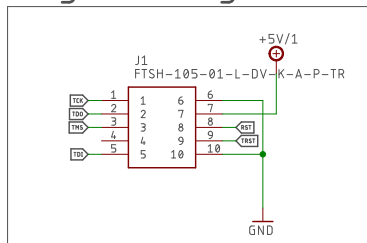
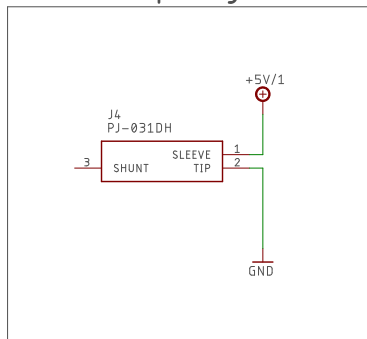




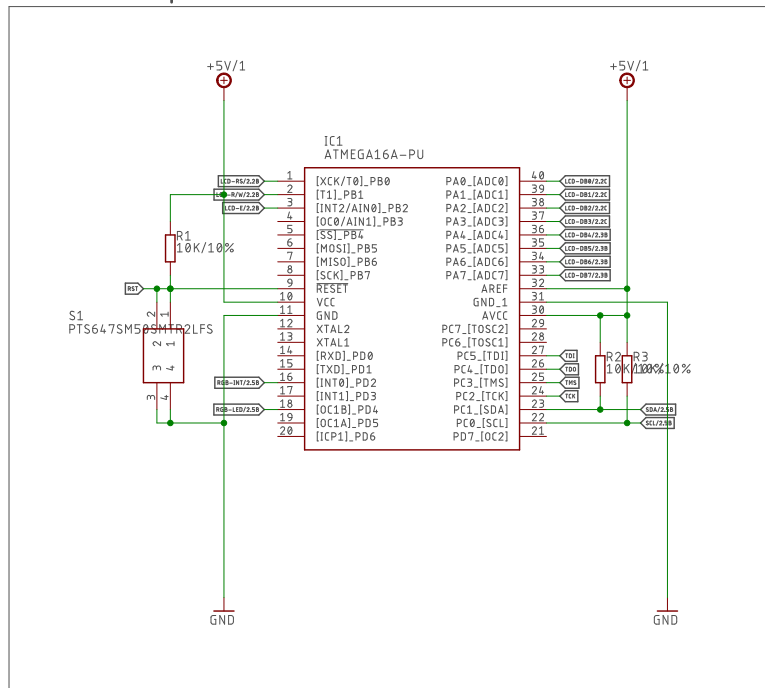
Programming header



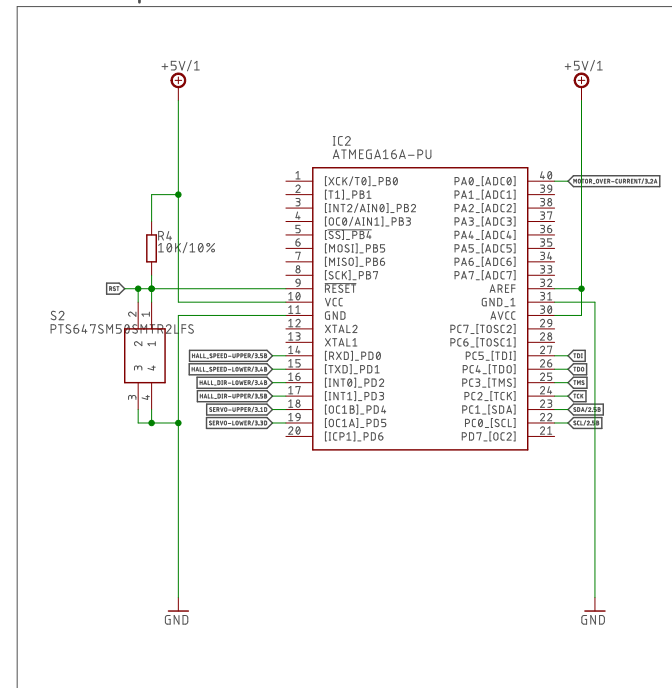
DC input jack



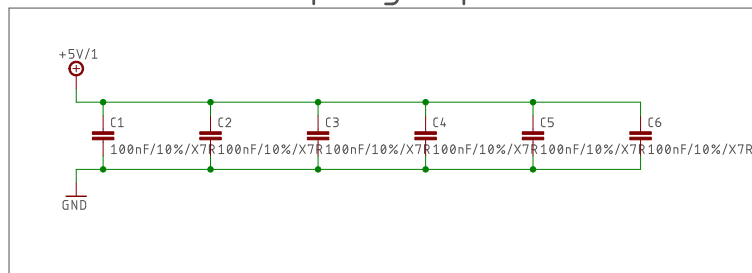
μC#1 (Master device)



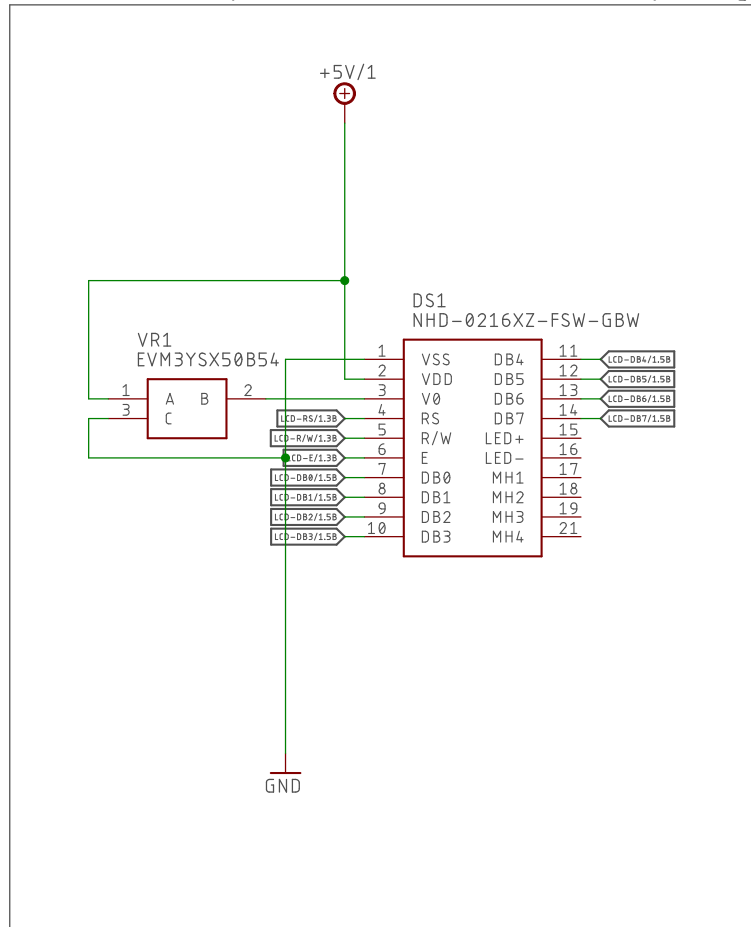
μC#2 (Motor controller)



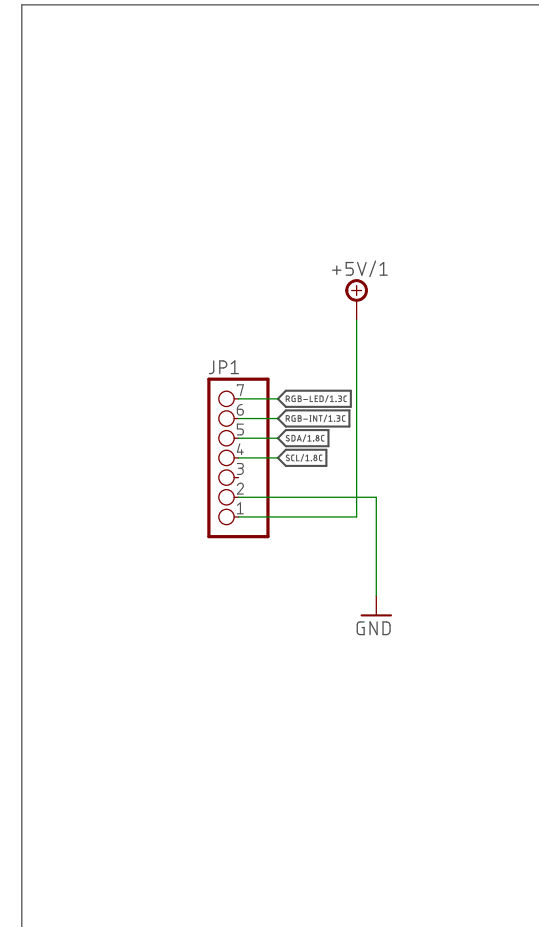
Decoupling capacitors



2x16 Alphanumeric display



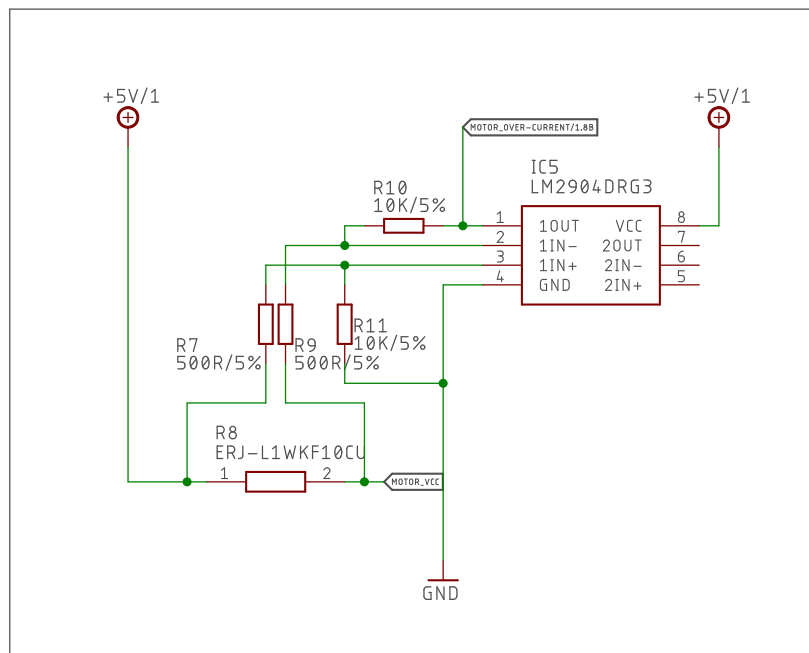
RGB sensor



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[illegible]

Current sense

The diagram shows a current sense circuit for a motor. A +5V/1 supply is connected to the non-inverting input (1IN+) of the LM2904DRG3 op-amp (IC5) through a 10K/5% resistor (R10). The inverting input (1IN-) is connected to the motor's VCC line through a 500R/5% resistor (R7). The output (1OUT) is connected to the motor's VCC line through a 500R/5% resistor (R9). The op-amp's VCC (pin 8) and GND (pin 5) are connected to the +5V/1 supply and ground, respectively. The motor's VCC is connected to the motor's VCC pin (2) and ground (GND). The motor's speed is connected to the motor's speed pin (1) and ground (GND). The motor's direction is connected to the motor's direction pin (3) and ground (GND). The motor's current is connected to the motor's current pin (4) and ground (GND).

Hall effect sensors

The diagram shows two circuit diagrams for hall effect sensors. The first diagram shows a TLE4966L (IC6) connected to a +5V/1 supply and ground. The sensor's VCC (pin 1) is connected to the +5V/1 supply, and its GND (pin 4) is connected to ground. The sensor's output (pin 2) is connected to the motor's speed pin (1) and ground (GND). The sensor's output (pin 3) is connected to the motor's direction pin (3) and ground (GND). The second diagram shows a TLE4966L (IC3) connected to a +5V/1 supply and ground. The sensor's VCC (pin 1) is connected to the +5V/1 supply, and its GND (pin 4) is connected to ground. The sensor's output (pin 2) is connected to the motor's speed pin (1) and ground (GND). The sensor's output (pin 3) is connected to the motor's direction pin (3) and ground (GND).

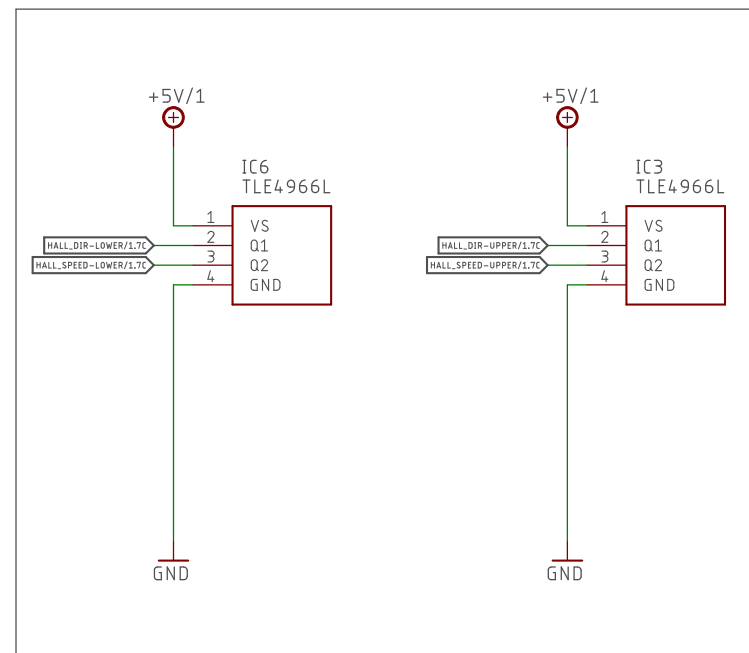
Servo motor connectors

The diagram shows two circuit diagrams for servo motor connectors. The first diagram shows a servo motor connector (J2) connected to a +5V/1 supply and ground. The connector's VCC (pin 1) is connected to the +5V/1 supply, and its GND (pin 3) is connected to ground. The connector's output (pin 2) is connected to the motor's speed pin (1) and ground (GND). The second diagram shows a servo motor connector (J3) connected to a +5V/1 supply and ground. The connector's VCC (pin 1) is connected to the +5V/1 supply, and its GND (pin 3) is connected to ground. The connector's output (pin 2) is connected to the motor's speed pin (1) and ground (GND).

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Current sense

The diagram shows a current sense circuit for a motor. A +5V/1 supply is connected to the non-inverting input (1IN+) of the LM2904DRG3 op-amp (IC5) through a 10K/5% resistor (R10). The inverting input (1IN-) is connected to the motor's VCC line through a 500R/5% resistor (R7). The output (1OUT) is connected to the motor's VCC line through a 500R/5% resistor (R9). The op-amp's VCC (pin 8) and GND (pin 5) are connected to the +5V/1 supply and ground, respectively. The motor's VCC is connected to the motor's VCC pin (2) and ground (GND). The motor's speed is connected to the motor's speed pin (1) and ground (GND). The motor's direction is connected to the motor's direction pin (3) and ground (GND). The motor's current is connected to the motor's current pin (4) and ground (GND).

Hall effect sensors

The diagram shows two circuit diagrams for hall effect sensors. The first diagram shows a TLE4966L (IC6) connected to a +5V/1 supply and ground. The sensor's VS (pin 1) is connected to the +5V/1 supply, and its GND (pin 4) is connected to ground. The sensor's Q1 (pin 2) and Q2 (pin 3) are connected to the motor's speed (pin 1) and direction (pin 3) lines, respectively. The second diagram shows a TLE4966L (IC3) connected to a +5V/1 supply and ground. The sensor's VS (pin 1) is connected to the +5V/1 supply, and its GND (pin 4) is connected to ground. The sensor's Q1 (pin 2) and Q2 (pin 3) are connected to the motor's speed (pin 1) and direction (pin 3) lines, respectively.

Servo motor connectors

The diagram shows two circuit diagrams for servo motor connectors. The first diagram shows a servo motor connector (J2) connected to a +5V/1 supply and ground. The connector's P\$1 (pin 1) is connected to the +5V/1 supply, and its P\$2 (pin 2) and P\$3 (pin 3) are connected to the motor's speed (pin 1) and direction (pin 3) lines, respectively. The second diagram shows a servo motor connector (J3) connected to a +5V/1 supply and ground. The connector's P\$1 (pin 1) is connected to the +5V/1 supply, and its P\$2 (pin 2) and P\$3 (pin 3) are connected to the motor's speed (pin 1) and direction (pin 3) lines, respectively.

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