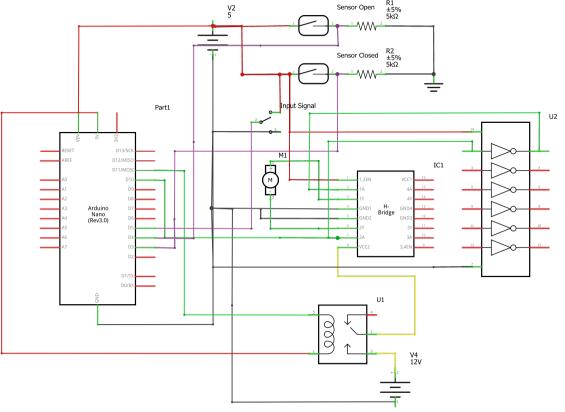Red = 5v
Yellow = 12v
Green = Output
Purple = Input
Black = Ground

V2
5

Sensor Open

R1
±5%
5kΩ

Sensor Closed

R2
±5%
5kΩ

Input Signal

Part1

M1

M

IC1

1,2EN   VCC1 16
1A   4A   15
1Y   4Y   14
GND1   GND4 13
GND2   GND3 12
2Y   3Y   11
2A   3A   10
VCC2   3,4EN 9

H-Bridge

U2

Arduino
Nano
(Rev3.0)

RESET   D13/SCK
AREF   D12/MISO
             D11/MOSI
A0   D10
A1   D9
A2   D8
A3   D7
A4   D6
A5   D5
A6   D4
A7   D3
             D2

             D1/TX
             D0/RX

VIN 5V 3V3

GND

U1

V4
12V

fritzing