We have 2 arduino uno circuits that will be the MCUs 1 and 2

In MCU1 with their various components:  
  
74C922 Keypad Encoder connected to a 16 key keypad(Front View):  
Out\_A is connected to A3

Out\_B is connected to A2(Arduino)

Out\_C is connected to A1 (Arduino)

Out\_D is connected to A0 (Arduino)

Data\_avail is connected to A5(Arduino)

Digital Distance sensor:  
Sig(W) is connected to A4 (Arduino)

DRV8833 Dual Motor Driver is connected to DC Motor with encoder:  
A2 In is connected to ~11(PWM Arduino)

A1 In is connected to ~10 (PWM Arduino)

DC Motor with Encoder:  
A is connected to 2 (Arduino)

B is connected to ~3(PWM Arduino)

LCD(FN 142-554):

Rs to ~6(PWM Arduino)

E to 7(Arduino)

DB4 to ~5 (PWM Arduino)

DB5 to 4 (Arduino)

DB6 to 13(Arduino)  
DB7 to 12(Arduino)

MCU1-MCU2 Connection:  
MCU1(This circuit) pin~9(PWM Arduino) connected to MCU2 pin 8

MCU 1(This circuit) pin 8(Arduino) connected to MCU 2 pin 7

10k Potentiometer is connected to LCD(FN 142-554) Vee

Sidenote on bottom of paper:  
Connect all +5V to external power supply via breadboard power rail

Connect all grounds together via breadboard ground rail