Complete Arduino Uno wiring diagram for earth. The potentiometer is used for contrast control on the LCD. The IR shown is for showing the three pin connections which exist on the IR board being used. For earth there will be wires going from the board to the pins indicated on the breadboard below. Also note, there is no breadboard used in the actual Earth construction it is shown here to indicate where the wires go for each component. The 1k ohm resistor is used to reduce the backlight level. That resistor can be changed to whatever value you want to change how the display looks. So a potentiometer could be used there as well.

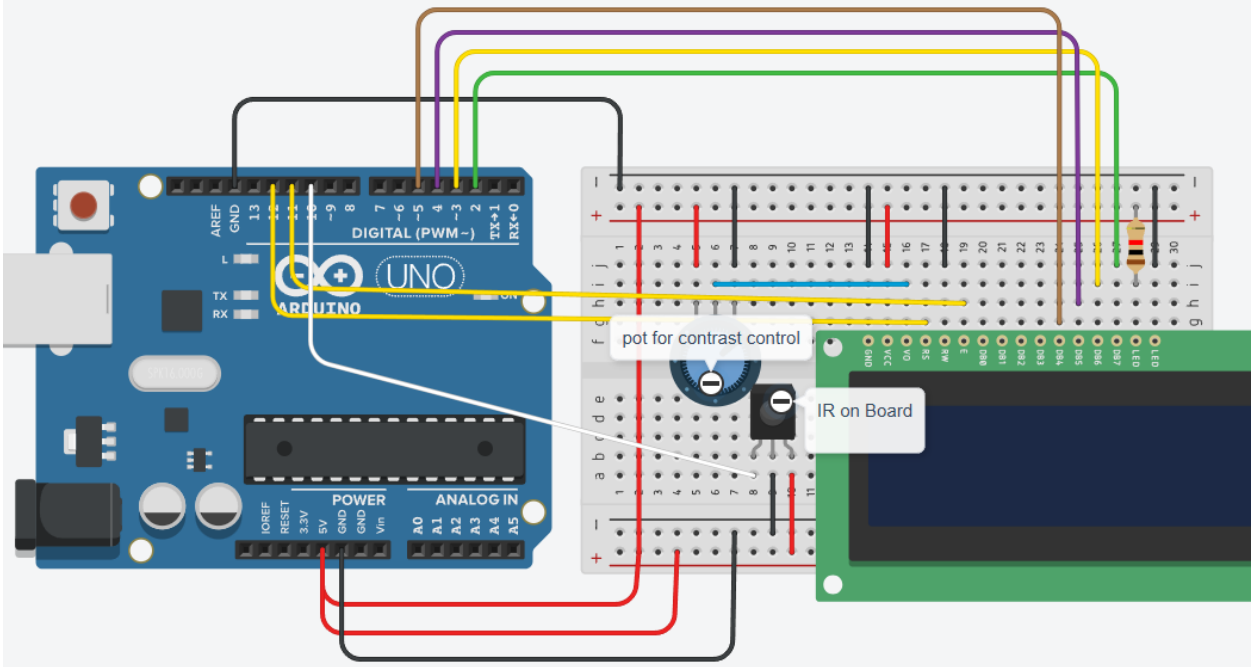

Figure #1 – Complete Wiring Diagram for Earth

Figures #2 and #3 show more readable information on the connection points by splitting Figure #1 in half showing a left side and a right side.

The LCD and the IR receiver are mounted to the outside of earth with wires running directly to the uno. The original test setup used had a rechargeable battery shield to power the Arduino Uno. This battery has an on/off switch that can be used to power the Arduino on and off. This pack was used in place of a 9 volt battery. With either power source, Earth has to be opened up to turn the Uno on or off. A change for this setup will be coming that will result in a pushbutton switch mounted below the LCD screen that can be used to turn the power on or off without opening up Earth.

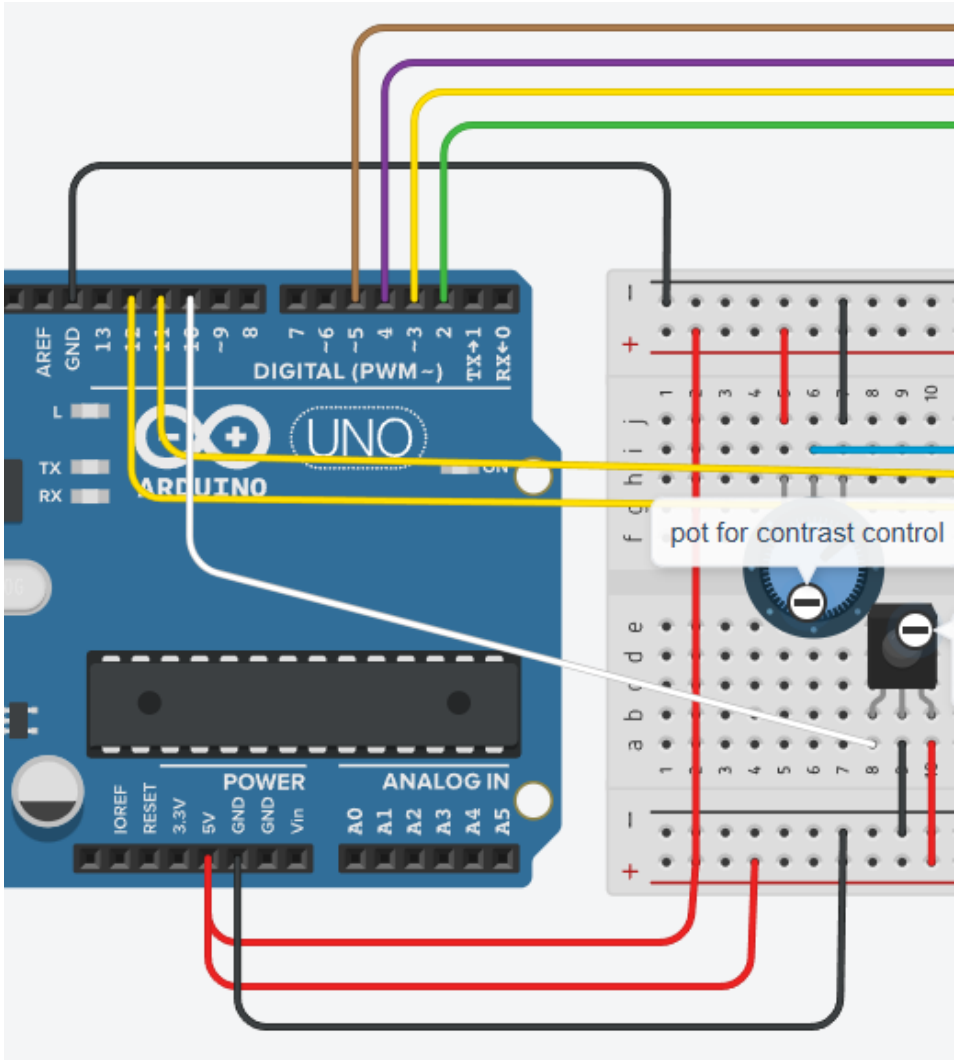

Figure #2 – Left side of Figure #1

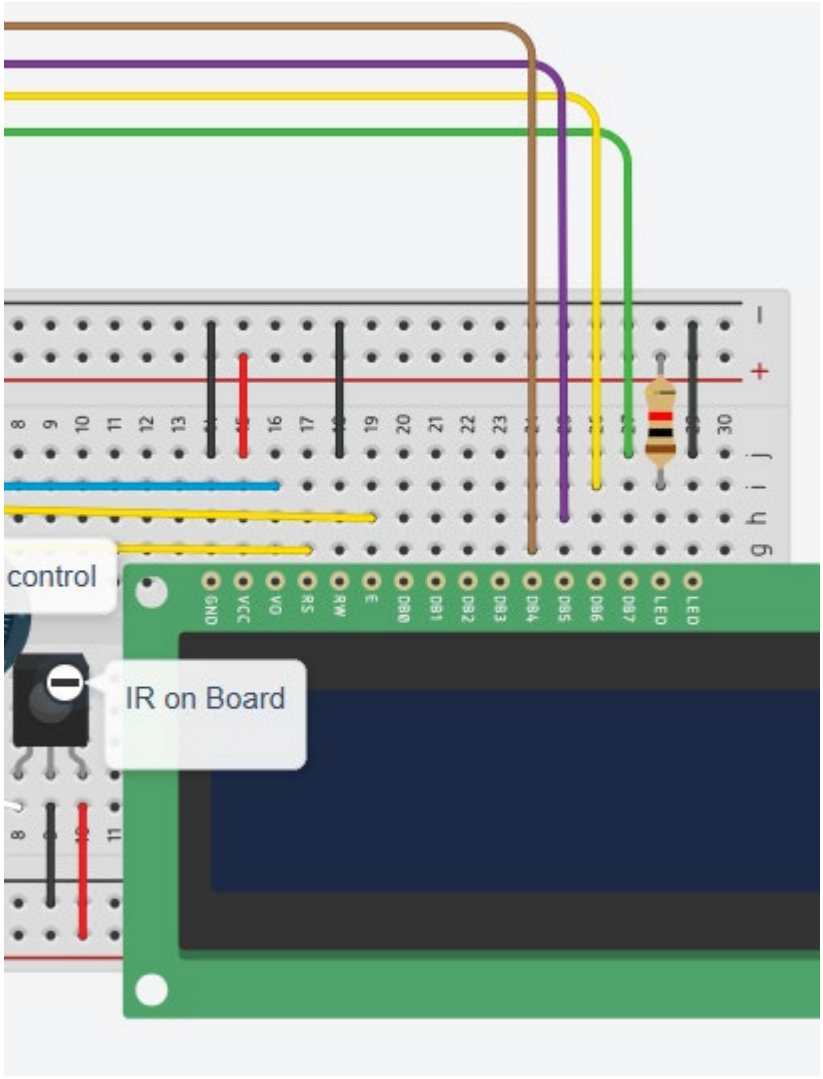

Figure #3 – Right Side of Figure #1