# Lab Report: Experiment 11

Digital Clock

Group 2

The goal of this particular experiment was to be able to create a digital clock that can be configured with push buttons using the arduino kit. We were using three push buttons that were connected to the Arduino board via their respective resistors. We utilized an LCD monitor in order to display the time, connecting all the necessary pins to the board.

Assignment 11 Hardware Design

Name	Quantity	Component	
U1	1	Arduino Uno R3	
Rpot1	1	10 Ω Potentiometer	
U2	1	LCD 16 x 2	
R1	1	1 kΩ Resistor	
R2, R3, R4	3	220 Ω Resistor	
S1, S2, S3	3	Pushbutton	

Hardware design:
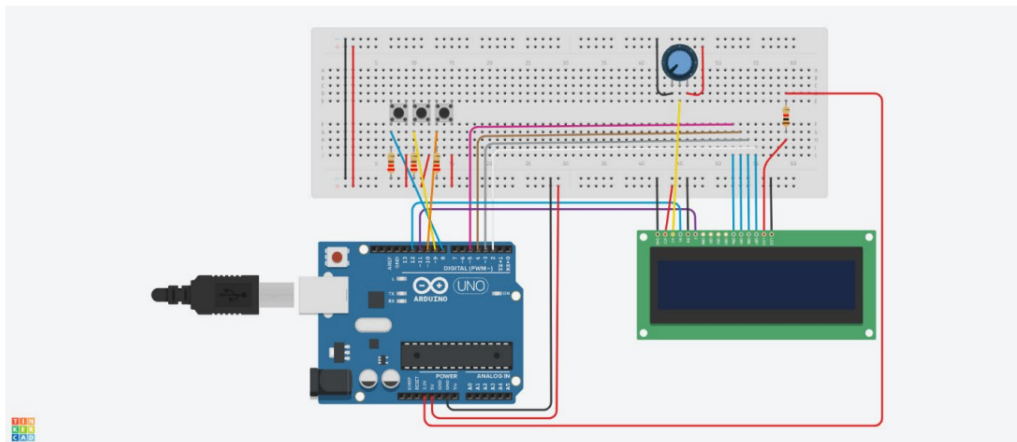
What we learned:

We learned how to keep track of time on the Arduino LCD, and how to program and adjust its settings using the three push buttons. Also, noticing that there is a variable that is used to control the setting of AM vs PM. There are also a lot of edge cases, like if the hour increments beyond twelve, then the value has to be reset, and same for minutes/seconds when they reach a value of 60. These were handled by the software.