This projects is about controlling a room temperature. LM35 will be used to measure the actual temperature of the room using ADC function. The LCD will be used to display the actual temperature and the setup temperature using the I2C function. There should be 4 push button switches, which are ON/OFF, Increase Temperature, Decrease Temperature, and Select (FAN, Heater, Air Conditioner). There should be 3 LED indicators to indicate if the fan, heater, or air conditioner is on. We’ll turn on LED indicators using 120 VAC instead of turn on actual fan, heater, nor air Conditioner.