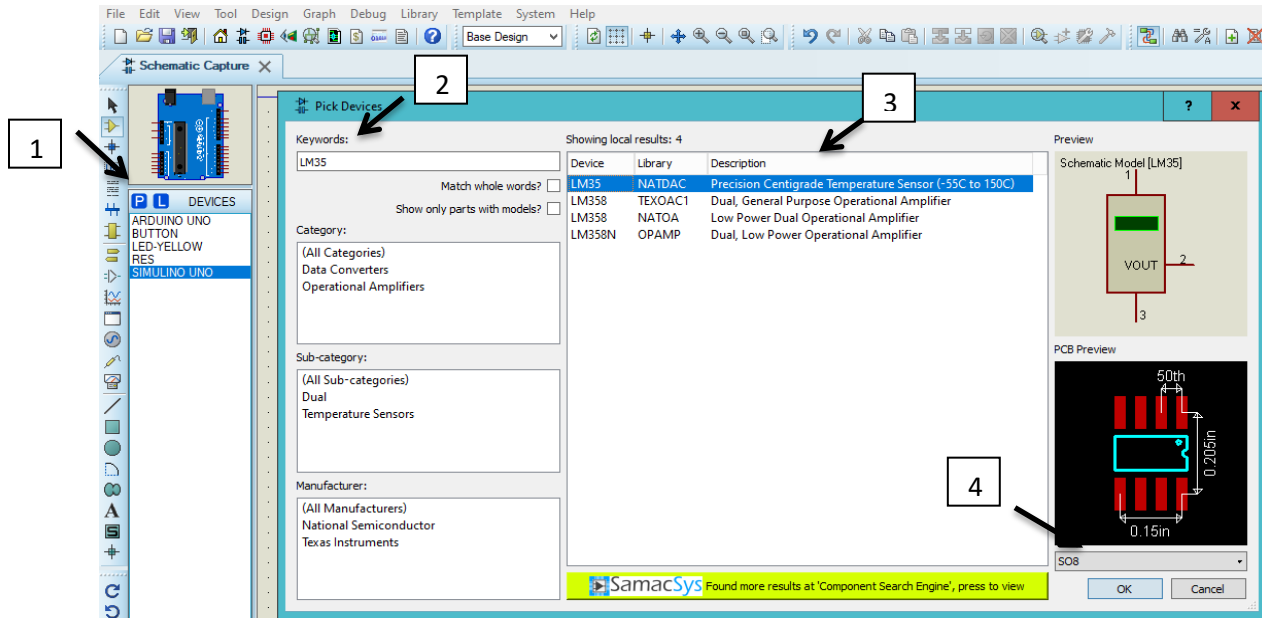


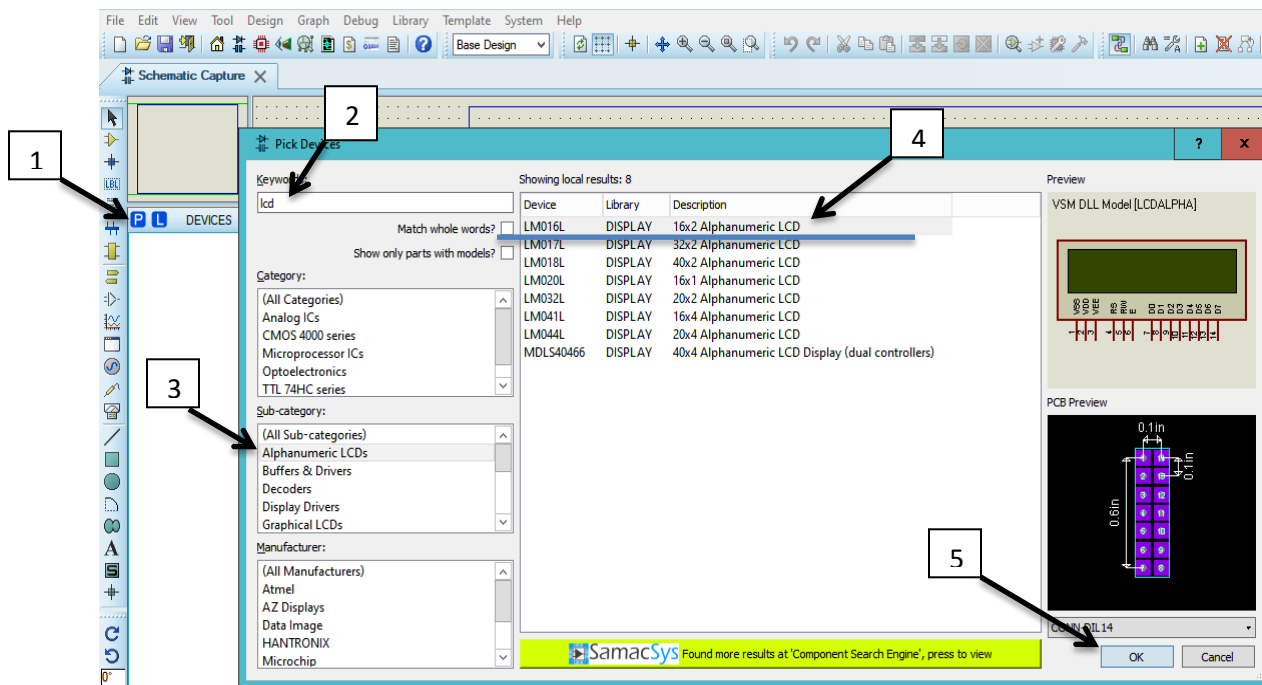
LM35 temperature sensor with LCD screen

1-Add Arduino UNO, 1k resistor, and ground as you learned in previous lectures.

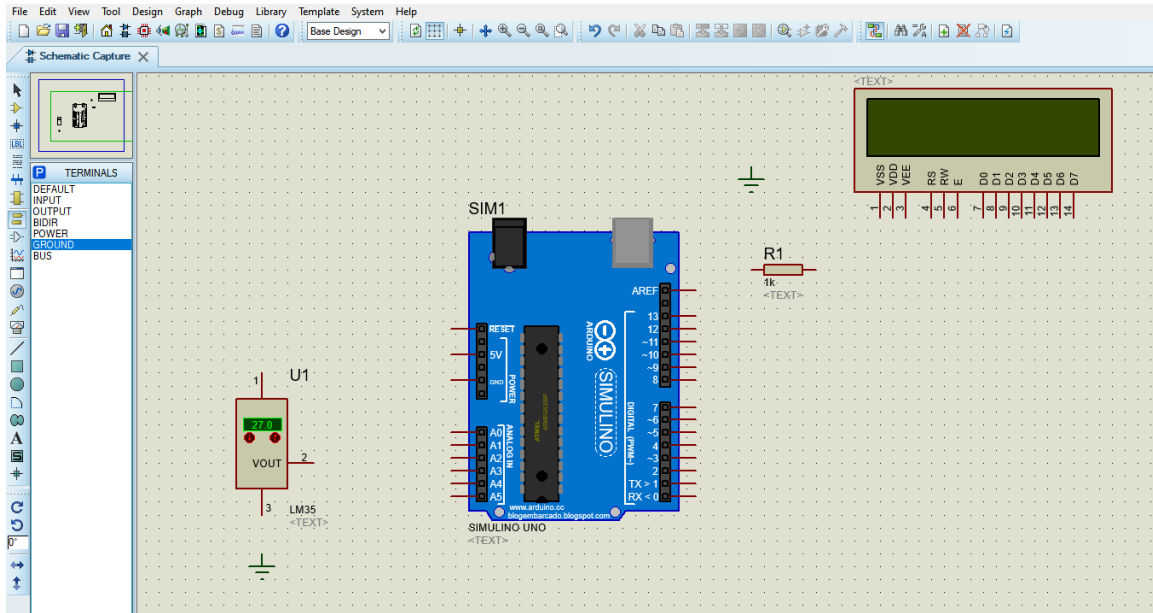
2- Add LM35 temperature sensor.



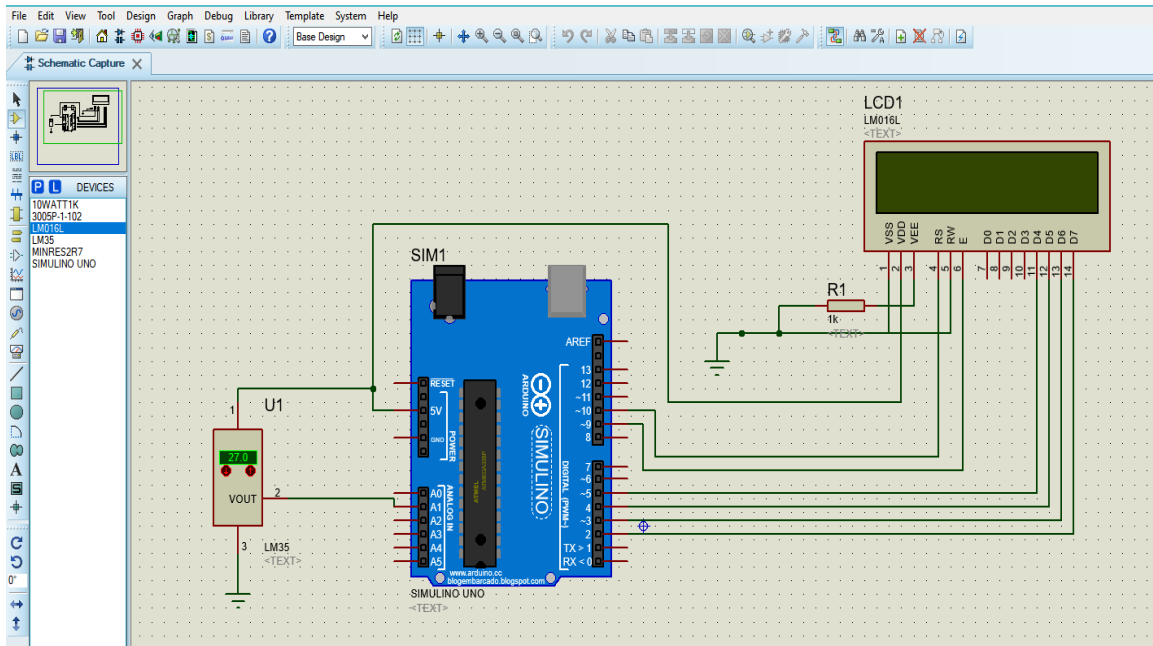
3-Add LCD screen (LM016L).



4- After you add all the components to your workspace you have to get this.



5-Connect the circuit as shown





Microcontroller Design Laboratory

Lecturer: Dr. Shayma Akram Yousif



Arduino code:-

```
#include <LiquidCrystal.h>

LiquidCrystal LCD(10, 9, 5, 4, 3, 2);

float tempC;

int reading;

int tempPin = 1;

void setup()
{
  LCD.begin(16,2);
  LCD.setCursor(0,1);
  LCD.print(" ");
  LCD.setCursor(0,0);
  LCD.print(" ");
  analogReference(INTERNAL);
  Serial.begin(9600);
}

void loop()
{
  reading = analogRead(tempPin);
  tempC = reading / 9.31;

  LCD.setCursor(0,0);
  LCD.print(" Temperature ");
  LCD.setCursor(0,1);
  LCD.print(" ");
  LCD.print(tempC);
  LCD.print(" C ");
  delay(200);
  LCD.setCursor(0,1);
  LCD.print(" ");
}
```

By:-

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