For LM35 (Temperature sensor)

If the value is 1024, then the output volt is 5000 mv

if the value is 1, then the output volt is $\frac{5000}{1024}$ mv

If the value is 51.2, the " " " is $\frac{500 \times 51.2}{1024}$

$= 250$ mv

We know,

10 mv will be generated for increase 1°C

1 mv " " " " " $\frac{1^\circ}{10}$ C

250 mv " " " " " $\frac{1^\circ \times 250}{10}$ C

$\Rightarrow 25^\circ C$

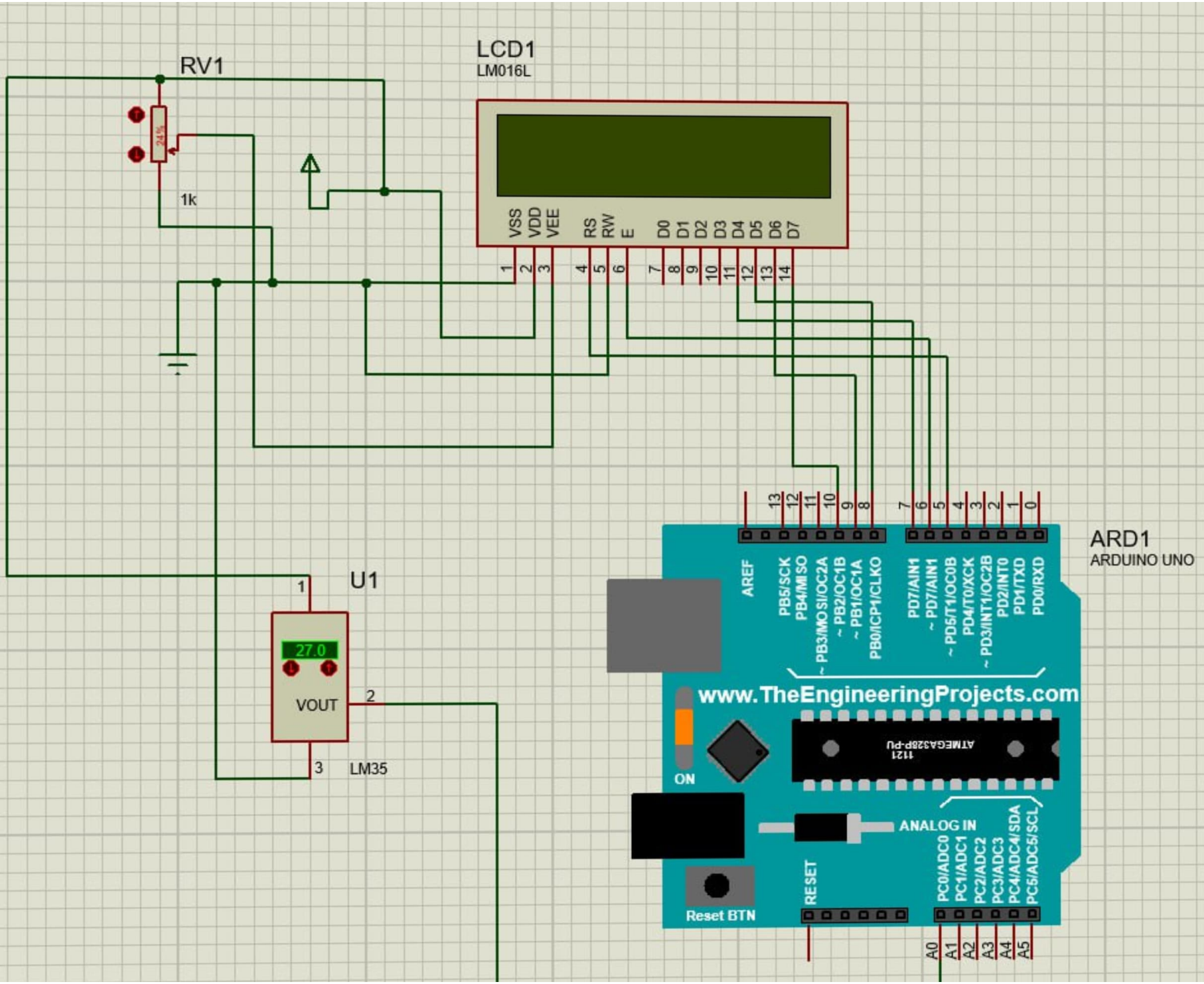
∴ The temperature is 25°C

So the equations will be

value = Analog (A0)

milivolt = $\frac{\text{value} \times 5000}{1024}$;

temperature = milivolt / 10 ;


RV1
24%
1k
LCD1
LM016L
VSS
VDD
VEE
RS
RW
E
D0
D1
D2
D3
D4
D5
D6
D7
1
2
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6
7
8
9
10
11
12
13
14
U1
27.0
VOUT
LM35
ARD1
ARDUINO UNO
AREF
PB5/SCK
PB4/MISO
~ PB3/MOSI/OC2A
~ PB2/OC1B
~ PB1/OC1A
PB0/ICP1/CLKO
PD7/AIN1
~ PD7/AIN1
~ PD5/T1/OC0B
PD4/T0/XCK
~ PD3/INT1/OC2B
PD2/INT0
PD1/TXD
PD0/RXD
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ON
ATMEGA328P-PU
ANALOG IN
RESET
Reset BTN
PC0/ADC0
PC1/ADC1
PC2/ADC2
PC3/ADC3
PC4/ADC4/SDA
PC5/ADC5/SCL
A0
A1
A2
A3
A4
A5