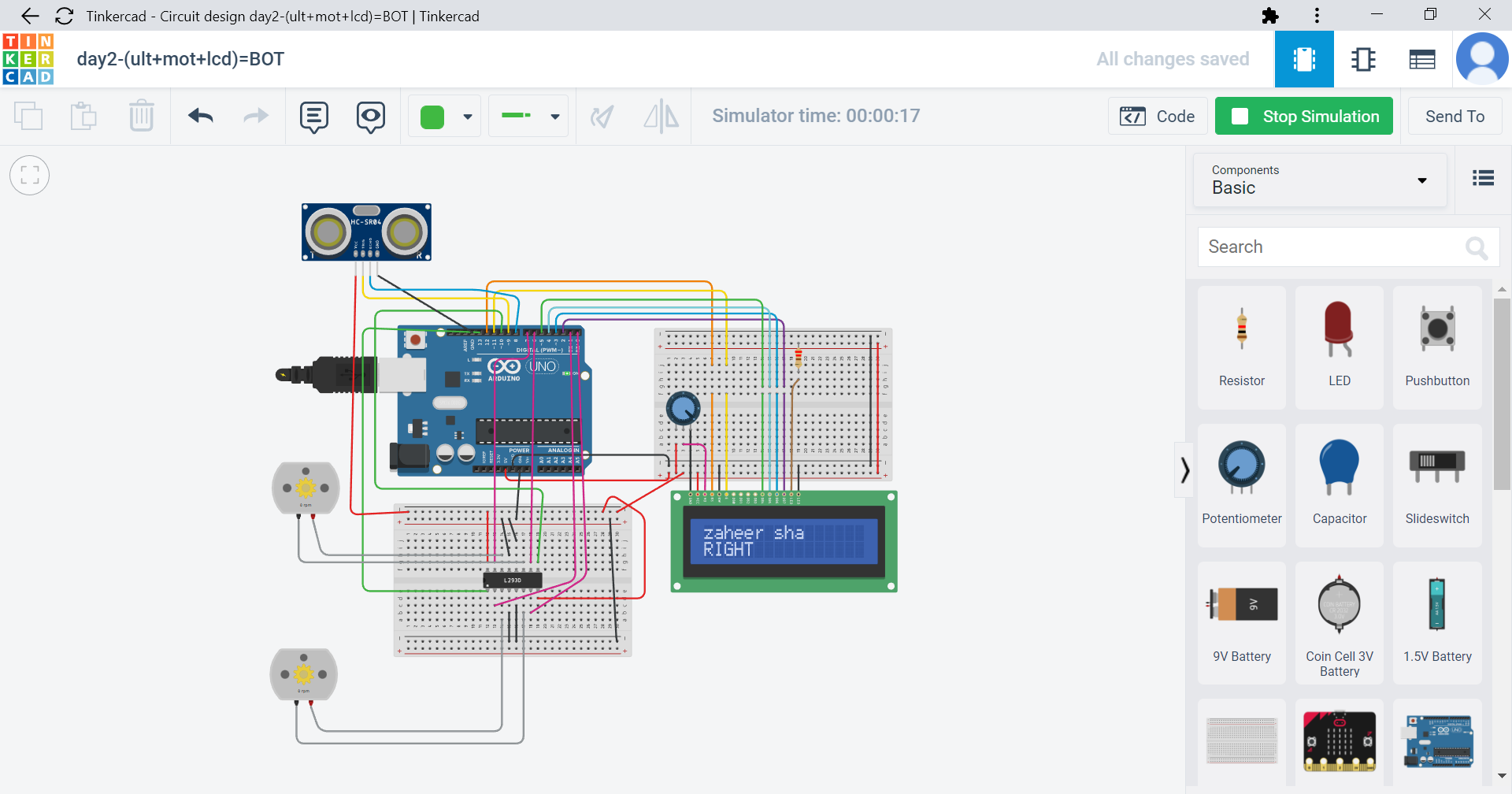
MAKE SKILLED IoT INTERNSHIP

ASSIGNMENT – 8

ARDUINO LOGICAL THINKING TASK

IF ANY OBJECT IS DETECTED ,ROBOT SHOULD MOVE EITHER RIGHT OT LEFT

* + HERE WE WILL BE USING ARDUINO INTERFACE.
  + COMPONENTS REQUIRED:
  1. ARDUINO UNO BOARD
  2. PC / LAPTOP INSTALLED WITH ARDUINO IDE SOFTWARE
  3. ULTERSONIC SENSOR
  4. MOTORS
  5. L293D DRIVERS
  6. JUMPING WIRES
* CIRCUIT DIAGRAM



* PROGRAM

#include <LiquidCrystal.h>

int trigPin = 9;

int echoPin = 8;

int in\_1 = 1;

int in\_2 = 0;

int in\_3 = 6;

int in\_4 = 7;

int en1 = 2;

int en2 = 4;

float duration\_us, distance\_cm;

LiquidCrystal lcd\_1(12, 11, 5, 4, 3, 2);

void setup()

{

Serial.begin (9600);

pinMode(in\_1,OUTPUT) ;

pinMode(in\_2,OUTPUT) ;

pinMode(in\_3,OUTPUT) ;

pinMode(in\_4,OUTPUT) ;

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

lcd\_1.begin(16, 2);

lcd\_1.print("zaheer sha");

}

void loop()

{

digitalWrite(en1, HIGH);

digitalWrite(en2, HIGH);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration\_us = pulseIn(echoPin, HIGH);

distance\_cm = 0.017 \* duration\_us;

Serial.print("distance: ");

Serial.print(distance\_cm);

Serial.println(" cm");

delay(1000);

if (distance\_cm > 70)

{

digitalWrite(in\_1,HIGH) ;

digitalWrite(in\_2,LOW) ;

digitalWrite(in\_3,HIGH) ;

digitalWrite(in\_4,LOW) ;

Serial.println("froward");

lcd\_1.setCursor(0, 1);

lcd\_1.print("FORWARD");

}

else if (distance\_cm < 70 and distance\_cm > 35 )

{

digitalWrite(in\_1,LOW) ;

digitalWrite(in\_2,HIGH) ;

digitalWrite(in\_3,LOW) ;

digitalWrite(in\_4,HIGH) ;

Serial.println("BACKWARD");

lcd\_1.setCursor(0, 1);

lcd\_1.print("BACKWARD");

delay(3000);

digitalWrite(in\_1,HIGH) ;

digitalWrite(in\_2,LOW) ;

digitalWrite(in\_3,LOW) ;

digitalWrite(in\_4,LOW) ;

Serial.println("RIGHT");

lcd\_1.setCursor(0, 1);

lcd\_1.print("RIGHT ");

}

}

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