BUILD A ROBOT WORKSHOP

Level 2 - Challenge 3

```
#include <UltraDistSensor.h>
#include <LiquidCrystal_I2C.h>
#include <Wire.h>

UltraDistSensor  Sensor Name ;
LiquidCrystal_I2C lcd(The LCD Address , 20, 4);

float  Distance Storage Variable;
int  oldMessageNum = 0;
int  newMessageNum = 0;

void setup() {

        lcd.init( );
        lcd.backlight( );
        Sensor  Name  .attach(TrigPin Name, EchoPin Name);

}

void loop() {

        Distance Storage Variable = Sensor Name .distanceInInch( );
        lcd.setCursor(X Coordinate  ,  Y Coordinate);

        if(Distance Storage Variable Operator  20) {

                newMessageNum = First Number ;

        } else if (Distance Storage Variable Operator  40) {

                newMessageNum = Second Number ;

        } else if (Distance Storage Variable Operator  75) {

                newMessageNum = Third Number ;

        } else {

                newMessageNum = Fourth Number ;

        }
```

```
        if( newMessageNum != oldMessageNum ) {

                oldMessageNum = newMessageNum;

                lcd.setCursor(X Coordinate , Y Coordinate);

                if(oldMessageNum == First Number ) {

                        lcd.print(“Print Statement 1 ”);

                } else if (oldMessageNum == Second Number ) {

                        lcd.print(“Print Statement 2 ”);

                } else if (oldMessageNum == Third Number ) {

                        lcd.print(“Print Statement  3 ”);

                } else {

                        lcd.print(“Print Statement 4 ”);

                }

        } else {

                lcd.scrollDisplayDirection();

        }

        delay(200);

}
```