Motor Health analysis

```
#include <Wire.h>

#include <LiquidCrystal.h>
const int rs = 8, en = 9, d4 = 10, d5 = 11, d6 = 12, d7 = 13;
LiquidCrystal lcd(rs, en, d4, d5, d6, d7);
#include <Wire.h>
#include <Adafruit_Sensor.h>
#include <Adafruit_ADXL345_U.h>

Adafruit_ADXL345_Unified accel = Adafruit_ADXL345_Unified(12345);

#include "DHT.h"
float R1 = 30000.0;
float R2 = 7500.0;

// Float for Reference Voltage
float ref_voltage = 5.0;
int cnt=0;
#define DHTPIN 7
#define DHTTYPE DHT11
DHT dht(DHTPIN, DHTTYPE);
void setup(void)
{
  Serial.begin(9600);
  lcd.begin(16,2);

  lcd.print("  WELCOME ");

  dht.begin();
```

```
  uint32_t currentFrequency;
    accel.begin();



}

void loop(void)
{

  int t = dht.readTemperature();
  float b1v=((analogRead(A0)*5)/1024.0)/(R2/(R1+R2));
  float b1c=analogRead(A1)-510;
  sensors_event_t event;
  accel.getEvent(&event);

 float xval=event.acceleration.x;
  if(b1c<0)
  {
    b1c=0;
  }

cnt=cnt+1;

Serial.print("T:"+String(t));Serial.print(',');
Serial.print("V:"+String(b1v));Serial.print(',');
Serial.print("C:"+String(b1c));Serial.print(',');
Serial.println("A:"+String(xval));Serial.print(',');



  lcd.clear();
```

```
  lcd.print("V:"+String(b1v) + " I:"+String(b1c));
  lcd.setCursor(0,1);
  lcd.print("T:"+String(t) + " A:"+String(xval));

  delay(1000);
}
```