

## Report 1st session

The objective of this session was to try to write the code for each component. So far, I've managed to write the code for the ultrasonic sensor and the code for the SIM800L. However, I have not yet tried the one of the SIM800L because I don't have it on site, and while trying the one of the ultrasonic sensor I faced some obstacles such as: a cable that was damaged, this made me waste a lot of time looking for where the problem is, but also a mistake that comes from me because I did not pay attention to the sensor Ultrasonic works with microseconds and not with milliseconds.

Here is the complete code that combines that of the two components :

---

```
#include <SoftwareSerial.h>
SoftwareSerial mySerial(11, 10);
int Trig = 13;
int Echo = 12;
long duree;
float distance;
void setup() {
    Serial.begin(9600);
    pinMode(Trig, OUTPUT);
    pinMode(Echo, INPUT);
    mySerial.begin(9600);
    Serial.println("Initializing...");
    delay(1000);

    mySerial.println("AT");
    updateSerial ();

    mySerial.println("AT+CMGF=1");
    updateSerial();
    mySerial.println("AT+CMGS=\"+3321875448\"");
    updateSerial();
    mySerial.print("Last Minute Engineers | lastminuteengineers.com");
    updateSerial();
    mySerial.write(26);

    // put your setup code here, to run once:

}
void updateSerial () {
```

```

void updateSerial () {
    delay(500);
    while (Serial.available())
    {
        mySerial.write(Serial.read());
    }
    while (mySerial.available())
    {
        Serial.write(mySerial.read());
    }
}

void detection_approche() {
    digitalWrite(Trig, LOW);
    delayMicroseconds(5);
    digitalWrite(Trig, HIGH);
    delayMicroseconds(10);
    duree = pulseIn (Echo, HIGH);
    distance = duree * 0.017;
    Serial.print("Distance= ");
    Serial.print(distance);
    Serial.println("cm");
    // put your main code here, to run repeatedly:
}

void loop() {
    detection_approche();
}

```

