



Ain Shams University
Faculty of Engineering
Computers and Systems Department

GPS Tracking System

First Milestone

Submitted by:

Group 16

Team members:

Hassan Mohamed Abdel Salam El Shazly	1700454
Hosni Adel Hosni Abdel Megged	1700455
Hussein Mostafa Zaki Hussein	1700463
Khaled Ahmed Abdel Fattah Mohamed Emara	1700471
Ahmed Essam Hanaffi	1700127
Radwa Ahmed Mostafa Kamal Al Saeed	1600559

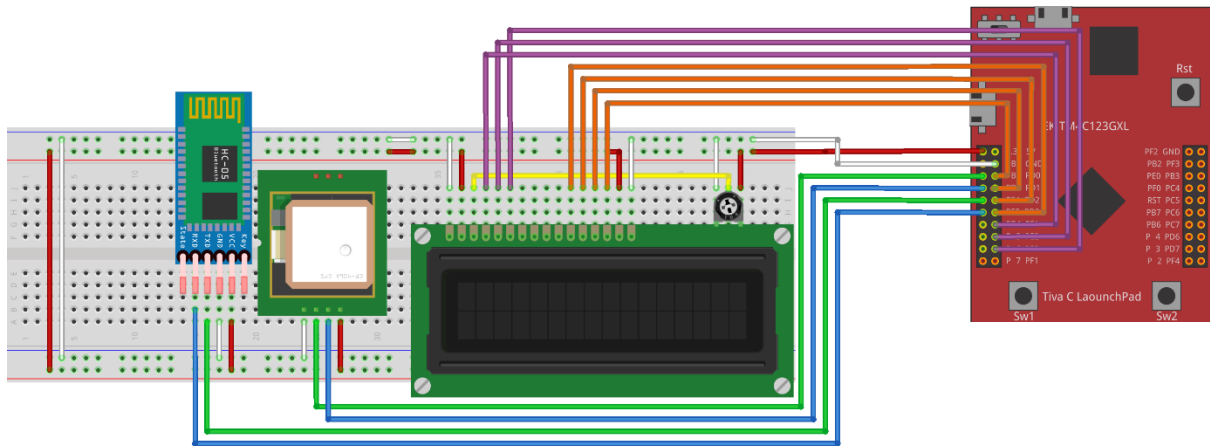
Supervised by:

Prof. Dr. Ashraf Salem

Faculty of Engineering
Ain Shams University

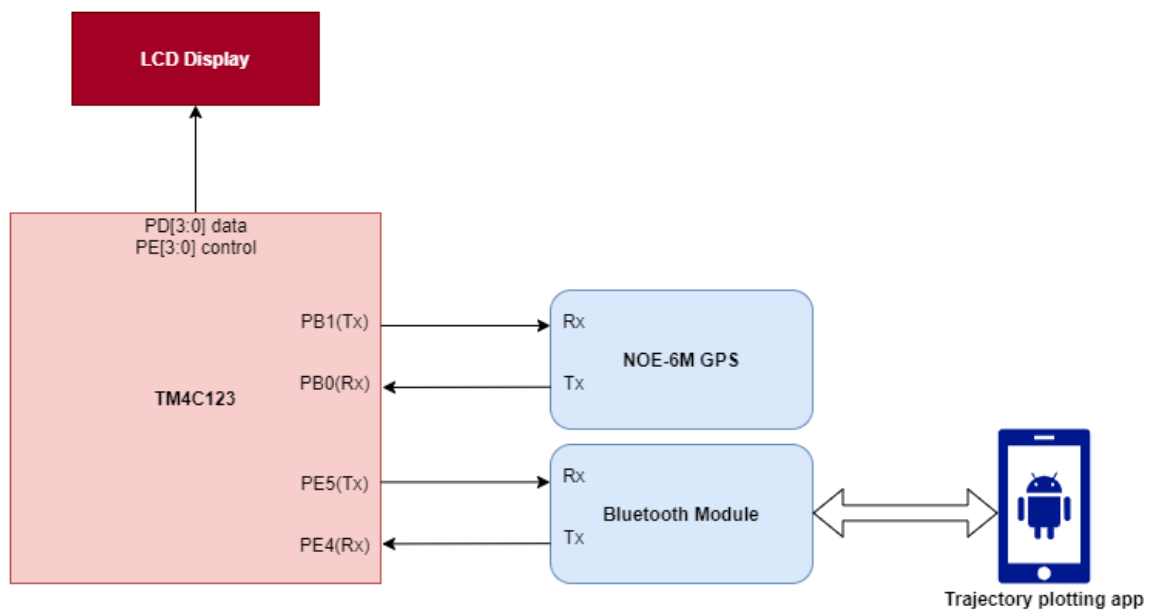
Cairo, 2021

Schematic

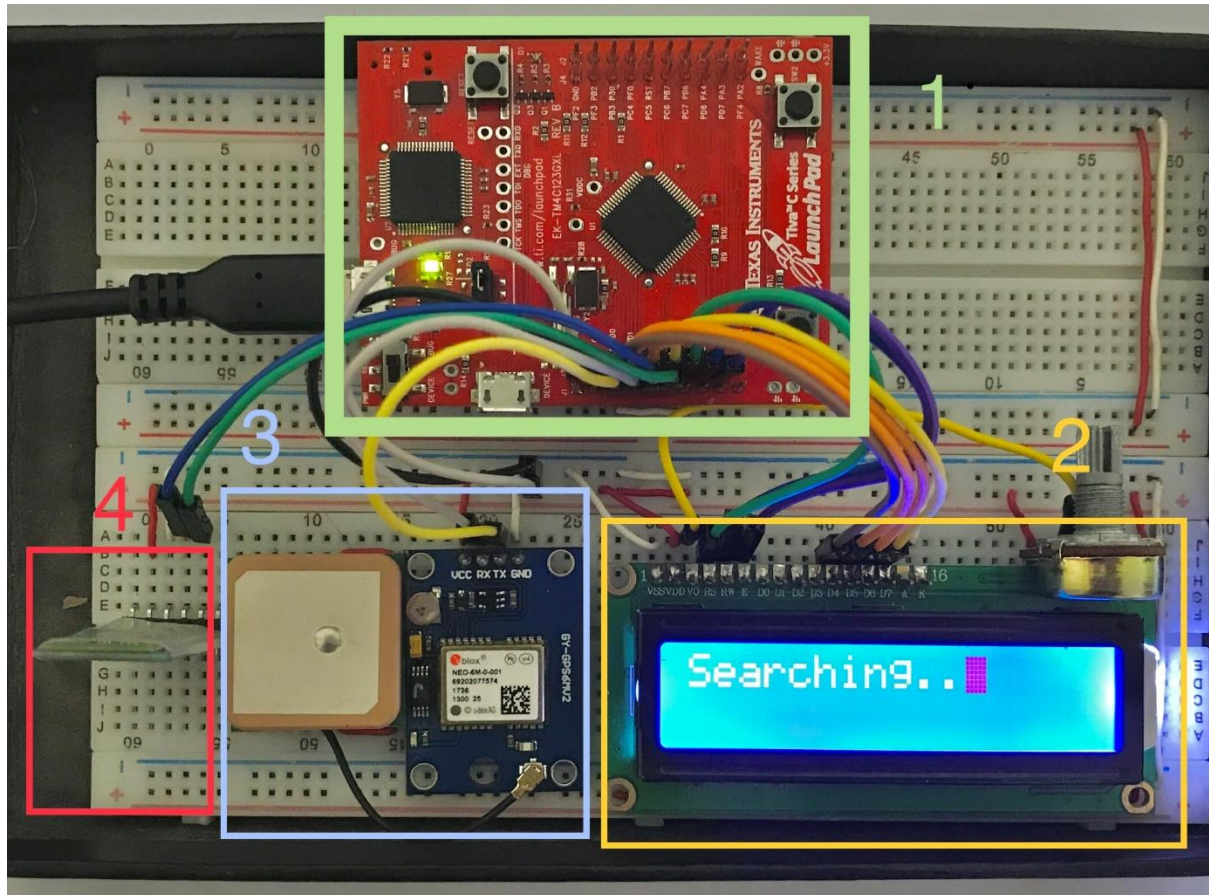


fritzing

System block diagram



Circuit Implementation



Our project consists of four main components:

- 1- TM4C123GH6PM microcontroller
- 2- RC1602E character LCD
- 3- Ublox NEO-6m GPS Module
- 4- HC-05 Bluetooth Module

Pin Configuration

A.

Bluetooth module PINS	TM4C123 GPIO PINS
+5V	VBUS
GND	GND
TX	PE4(uart7_rx)
RX	PE5(uart7_tx)

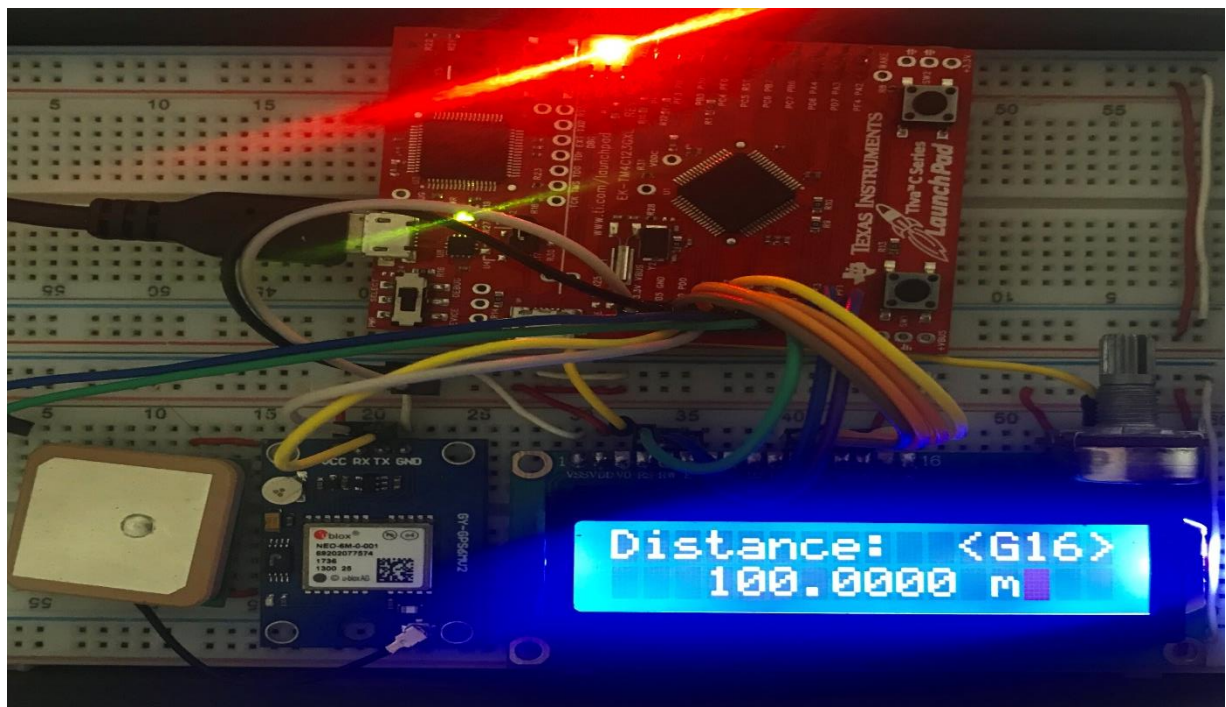
B.

GPS module PINS	TM4C123 GPIO PINS
VCC	VBUS
GND	GND
TX	PB0(uart0_rx)
RX	PB1(uart0_tx)

C.

	LCD PINS	TM4C123 GPIO PINS
LCD control	RS	PE1
	RW	PE2
	E	PE3
LCD data	D7	PD3
	D6	PD2
	D5	PD1
	D4	PD0
Power	VSS	GND
	VDD	VBUS
	VO	Potentiometer out
	A	VBUS
	K	GND

Test LCD and LED



Drive link for source code and demo videos:

<https://drive.google.com/drive/folders/1vJjoU6XUAP9TLck9WWL9CxPq3NMZGyfl?usp=sharing>

GitHub repo link:

[hosniadel666/GPS-Tracking-System \(github.com\)](https://github.com/hosniadel666/GPS-Tracking-System)