



Ain Shams University
Faculty of Engineering
Computers and Systems Department

GPS Tracking System

First Milestone

Submitted by:

Group 16

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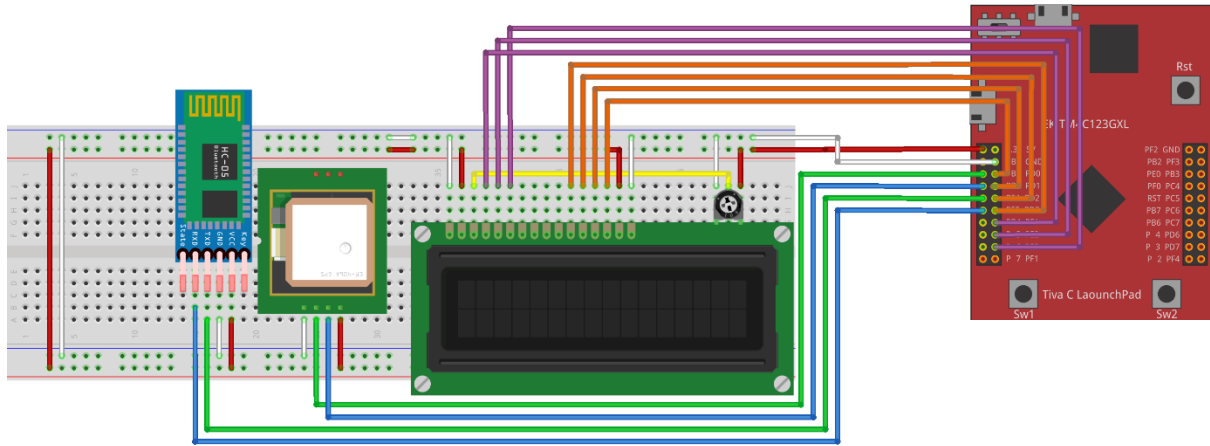
Supervised by:

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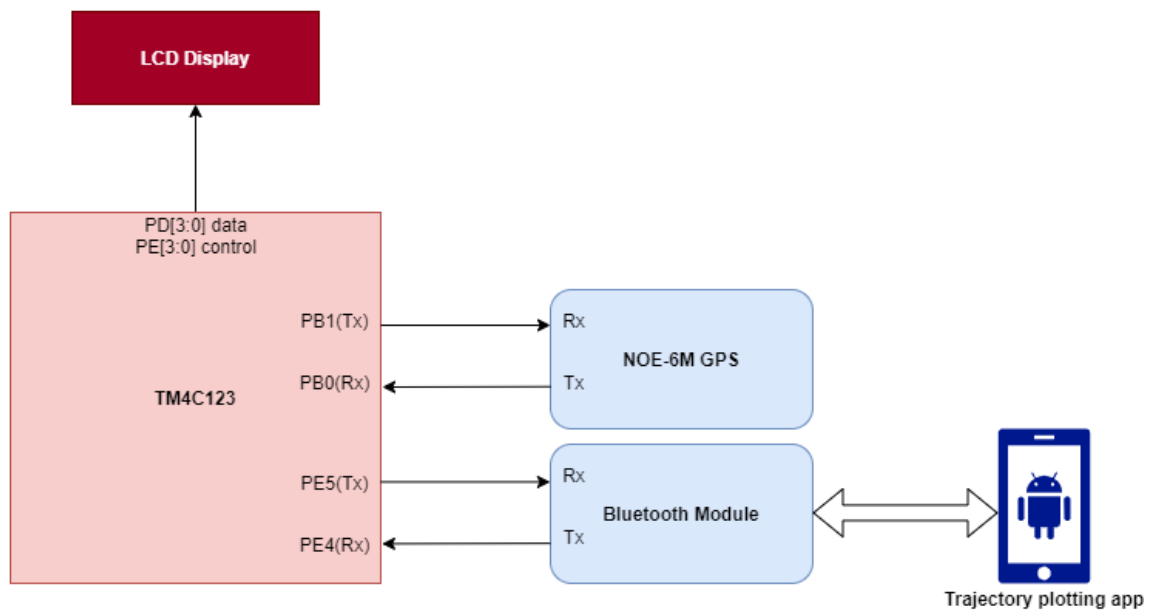
Cairo, 2021

Circuit Schematic

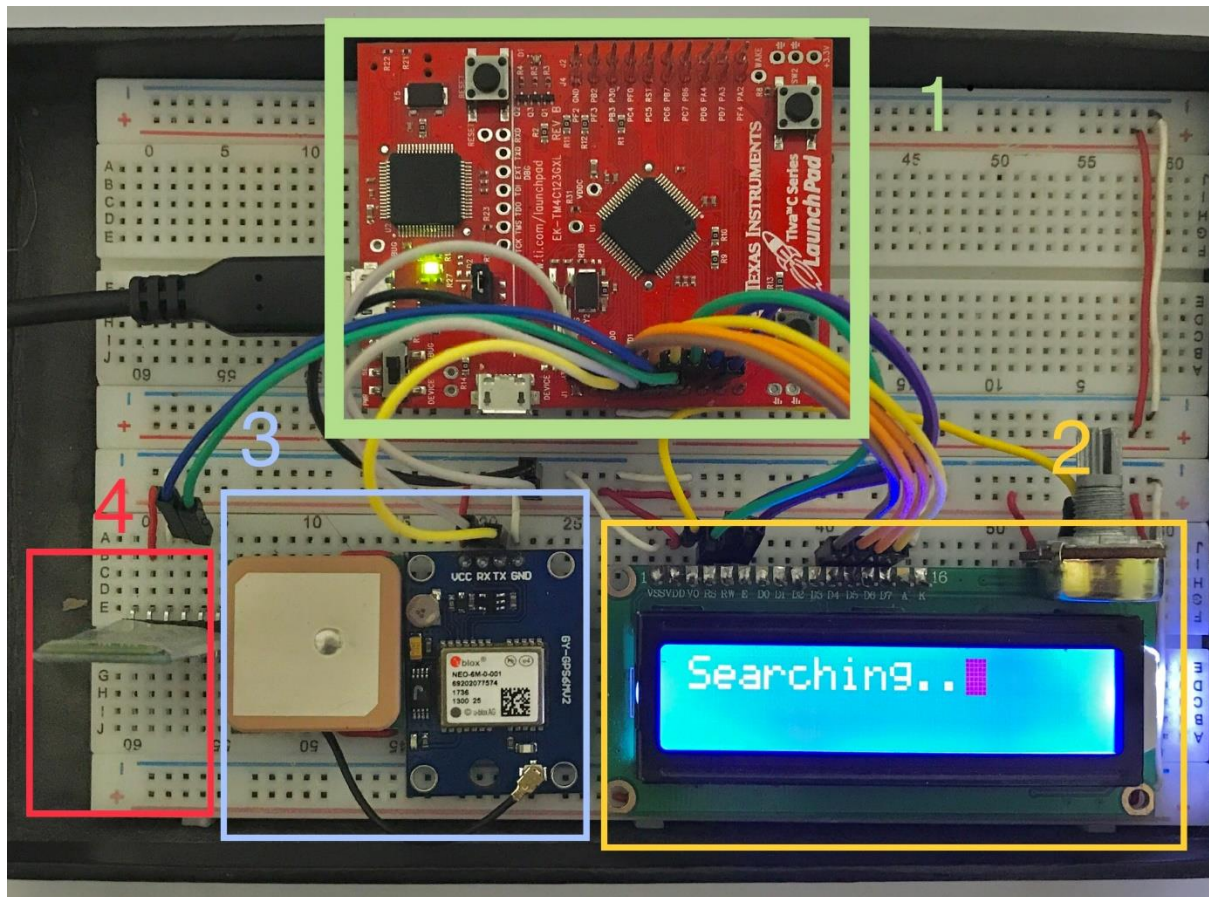


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System Block Diagram



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)

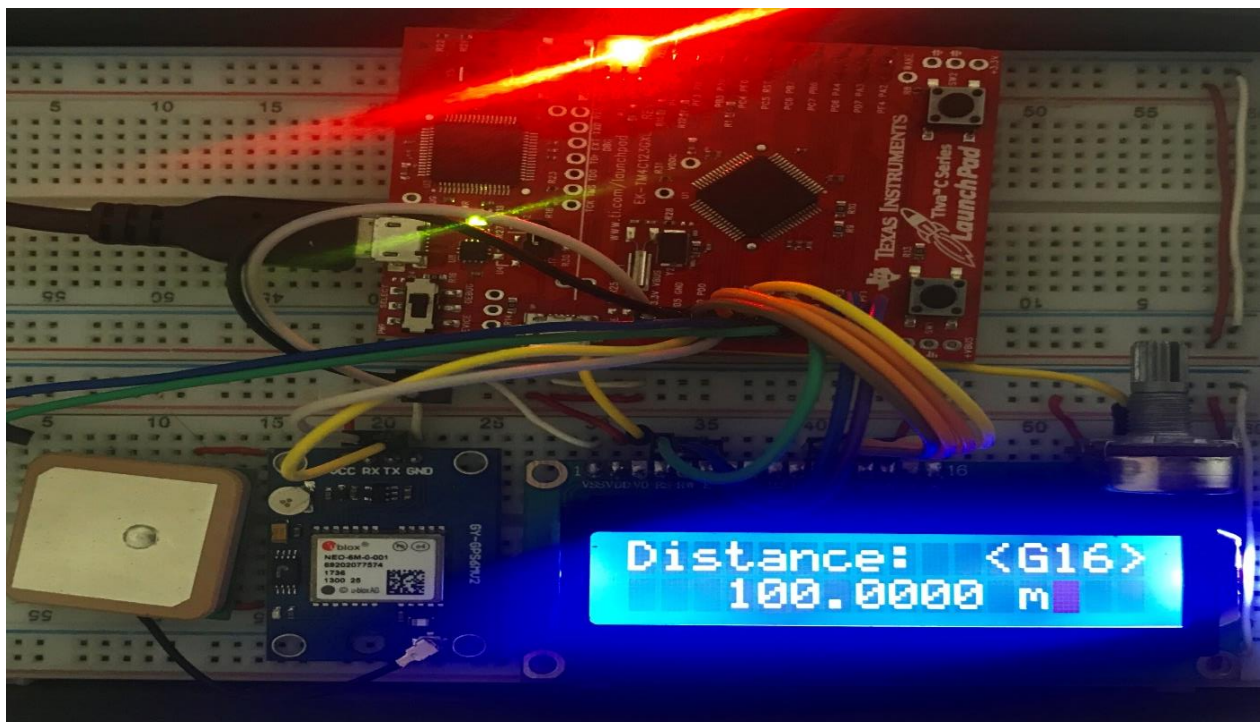
B.

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



Source Code and Demo Videos

Drive link for source code and demo videos:

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

GitHub repository link:

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