Logo

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Ain Shams University

Faculty of Engineering

Computers and Systems Department

**GPS Tracking System**

**First Milestone**

Submitted by:

**Group 16**

Team members:

|  |  |
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Supervised by:

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Cairo, 2021

**Schematic**

A screenshot of a computer

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**Diagram

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**Circuit Implementation**

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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**

|  |  |
| --- | --- |
| **Bluetooth module PINS** | **TM4C123 GPIO PINS** |
| +5V | VBUS |
| GND | GND |
| TX | PE4(uart7\_rx) |
| RX | PE5(uart7\_tx) |

|  |  |
| --- | --- |
| **GPS module PINS** | **TM4C123 GPIO PINS** |
| VCC | VBUS |
| GND | GND |
| TX | PB0(uart0\_rx) |
| RX | PB1(uart0\_tx) |

1. A picture containing text, electronics

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|  |  |  |
| --- | --- | --- |
|  | **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)