

# Charger Controller help

## **1. Overview and description:**

### *1.1 Programs description:*

The program is to control an Arduino microcontroller which is used to charge a battery from three different sources:

A transformer from External Power Supply

A Solar Panel

A Wind Generator

First one is used to charge battery when there was not enough charged by last two, according an user time set in the arduino across an LCD and a Keypad and also, by using a photo resistor.

Source code of the program can be find here:

<https://github.com/DarioLobos/Arduino-program->

There can be found also the arduino code which has a name:

ChargerController.ino

Can be flashed to the arduino Board using the Arduino Application:

<https://www.arduino.cc/en/software/>

Circuits are found here:

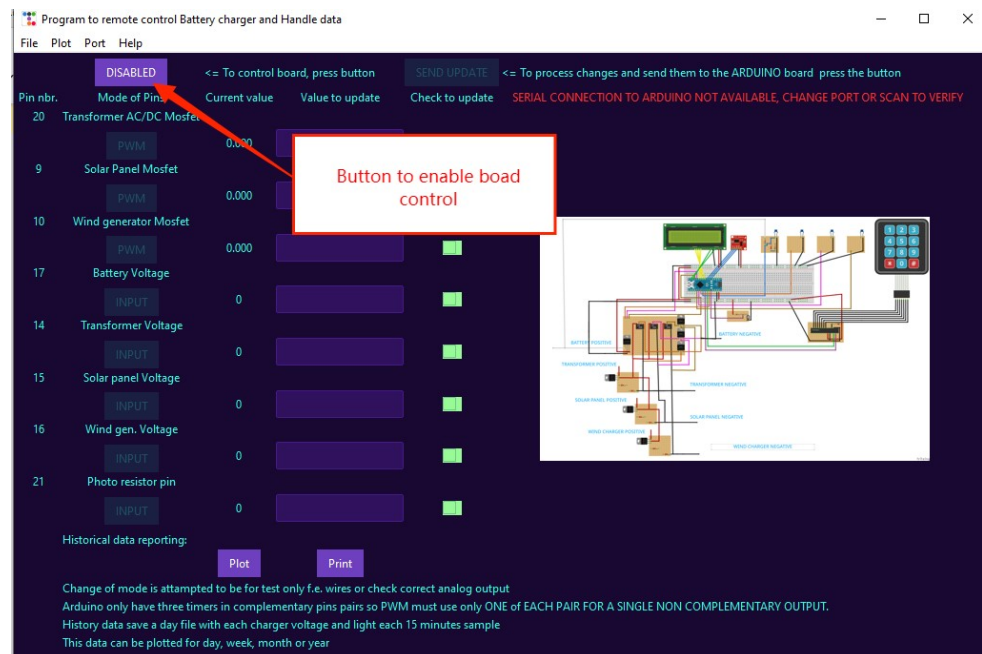
<https://drive.google.com/file/d/1AJ6Pxyg2a4SylqBlTQMUnToGb4nMWeYA/view?usp=drivesdk>

[https://drive.google.com/file/d/1AI77g\\_Waz6oLzmldAXDt1WZzXRI4m\\_--/view?usp=drivesdk](https://drive.google.com/file/d/1AI77g_Waz6oLzmldAXDt1WZzXRI4m_--/view?usp=drivesdk)

<https://drive.google.com/file/d/1ANG8-GtRzkY1PIZ6kYH60ZUBgf1YUTnj/view?usp=drivesdk>

## 1.2 Program capabilities:

Is possible to control de board and send actions to the pins by changing mode of Pins or Values voltages to them. This is attempted to check functionality or improve the program,



Most common usage is check connections and verify voltage in Mosfets. Voltage can be slightly increased or decreased modifying a Variable in to code that will be described later.

Other example is attach to the Mosfets or to the heat sink (disipator) a thermistor and measure drain current, temperature with a different voltages applied to the mosfet using program and a precision voltmeter and amperimeter. This gonna store in a table that in future programs updates can plot Current, Power and Energy developed by each source. This is to develop the board, Thermistor can also be used to program a thermal protection easy

IF SYSTEM WORKS WELL AND IS UNDER USER NORMAL USAGE IS RECOMMENDED DON'T CHANGE PIN MODES.

## 2. Usage Description:

Under construction

## 3. Setting:

Under Construction

#### **4. About Program and Autor:**

*Programs was done with Phyton 3.13 with the needed libraries, Was tested in a Windows 10 32 bits computer.*

*Autor: Dario Martion Lobos*

*Starting date: 23/March?2025*

A light sensor control the starting of