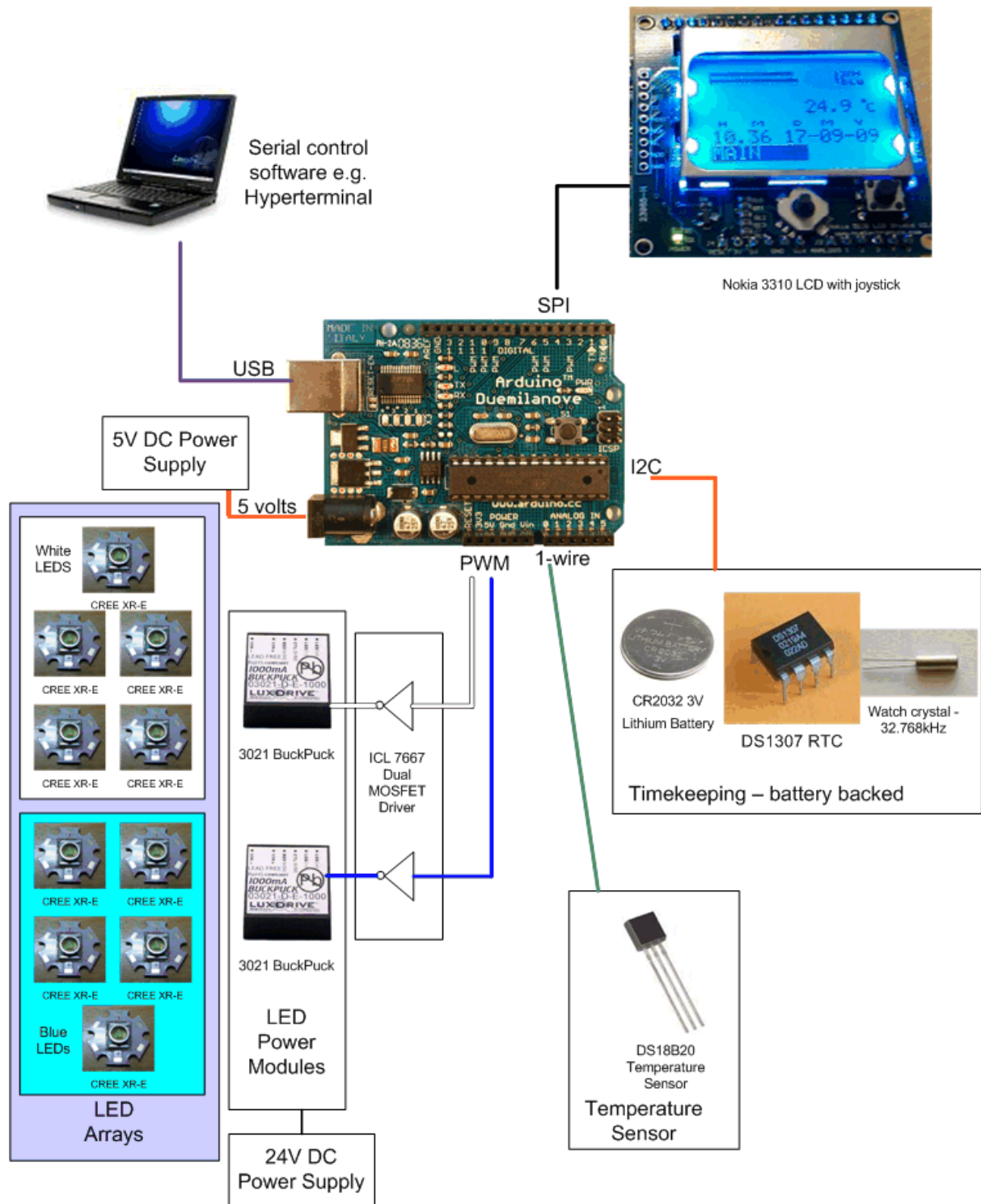


# KRUSDUINO OVERVIEW

A simple Arduino based fishtank LED lighting controller.



## Krusduino – Fishtank Lighting Controller - Schematic

### Arduino

Code is here:- <http://code.google.com/p/dangerduino/source/browse/#svn/trunk>

Arduino development environment is here <http://arduino.cc/en/Main/Software>

## Parts list and links for the Arduino part of the project:-

### Arduino

[http://www.coolcomponents.co.uk/catalog/product\\_info.php?cPath=50&products\\_id=115](http://www.coolcomponents.co.uk/catalog/product_info.php?cPath=50&products_id=115)

### LCD Shield

[http://www.nuelectronics.com/estore/index.php?main\\_page=product\\_info&cPath=1&products\\_id=12](http://www.nuelectronics.com/estore/index.php?main_page=product_info&cPath=1&products_id=12)

### Protoshield board

[http://www.nuelectronics.com/estore/index.php?main\\_page=product\\_info&cPath=1&products\\_id=3](http://www.nuelectronics.com/estore/index.php?main_page=product_info&cPath=1&products_id=3)

### DS1307RTC Chip

<http://uk.farnell.com/jsp/search/productdetail.jsp?SKU=1188042>

32.756kHz Crystal - I think I bought this from bitbox.co.uk

<http://www.bitsbox.co.uk/crystals.html>

### CR2032 Battery holder

<http://uk.farnell.com/jsp/search/productdetail.jsp?SKU=1704228>

CR2032 Battery - Standard type, available everywhere

### DS18B20 Temp Sensor

<http://uk.farnell.com/jsp/search/productdetail.jsp?SKU=1187948>

### Dual Power Mosfet Driver

<http://uk.farnell.com/jsp/search/productdetail.jsp?SKU=9663690>

### Resistors

1 x 4k7 for temp sensor

2 x 10k for RTC Chip

1 x 220R for second timing LED

LED – any you have lying about

We also used some Molex connectors to connect the wires from the buckpucks and temp sensor etc.

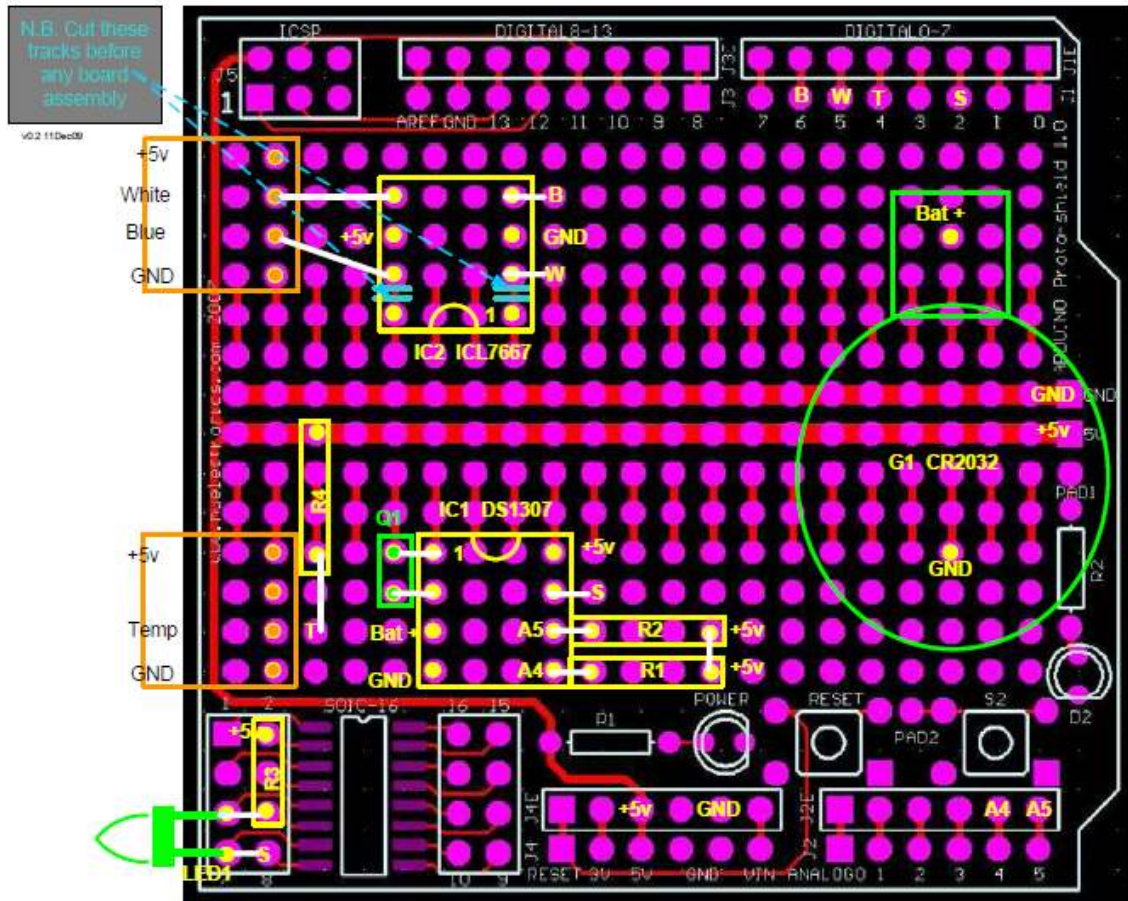
MOLEX - 70553-0003 - HEADER, W2B, 4WAY

[http://uk.farnell.com/molex/70553-0003/header-w2b-4way/dp/1462925?crosssellid=1462925&crosssell=true&in\\_merch=true&](http://uk.farnell.com/molex/70553-0003/header-w2b-4way/dp/1462925?crosssellid=1462925&crosssell=true&in_merch=true&)

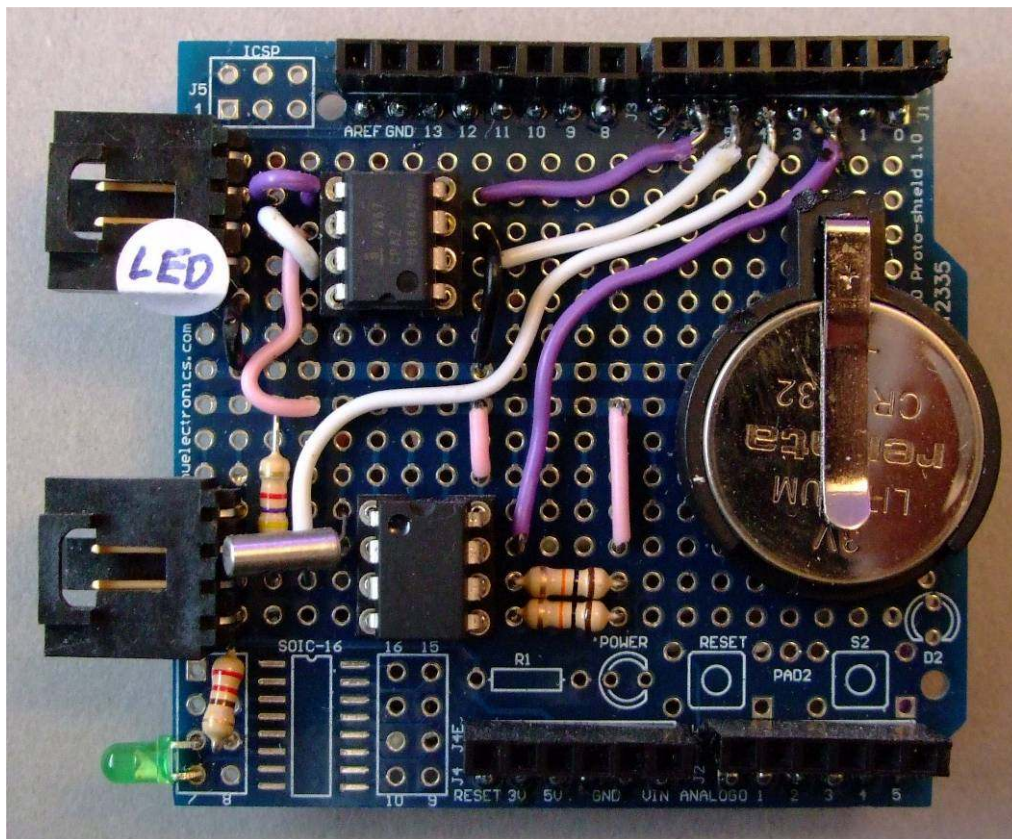
(HOUSING FEMALE, 4WAY - MOLEX 50-57-9404 and CRIMP TERMINAL - MOLEX 16-02-0069 for the other part of the connectors

In total it cost around £50 in parts to put together.

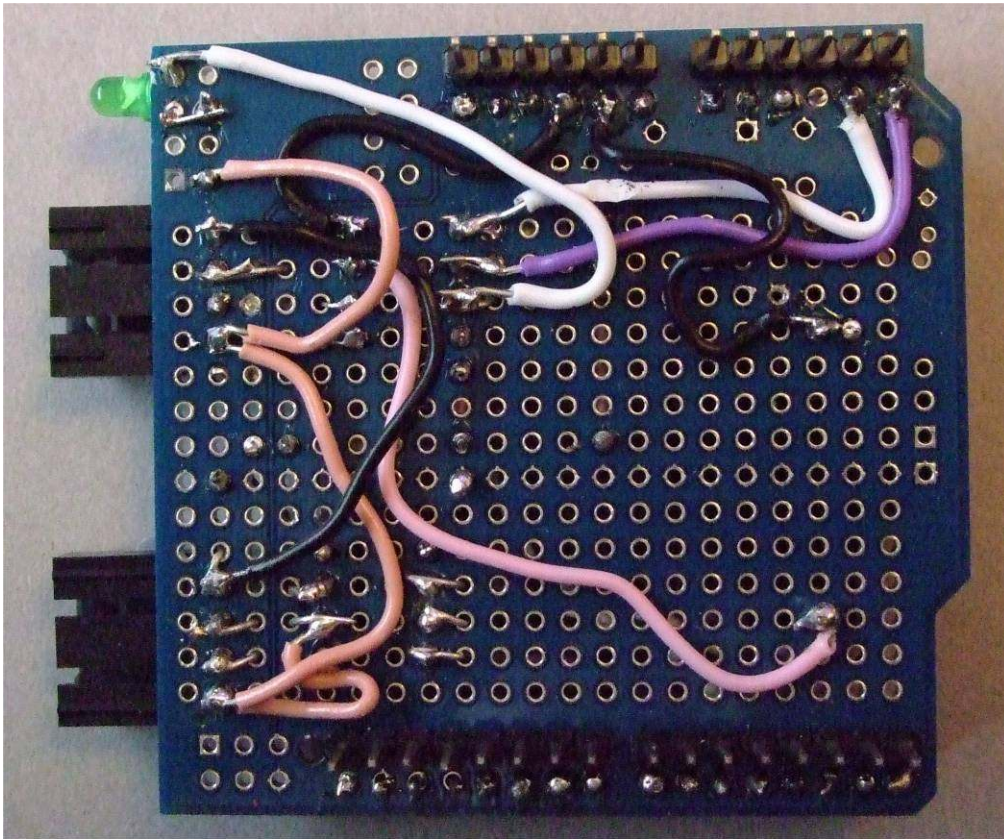




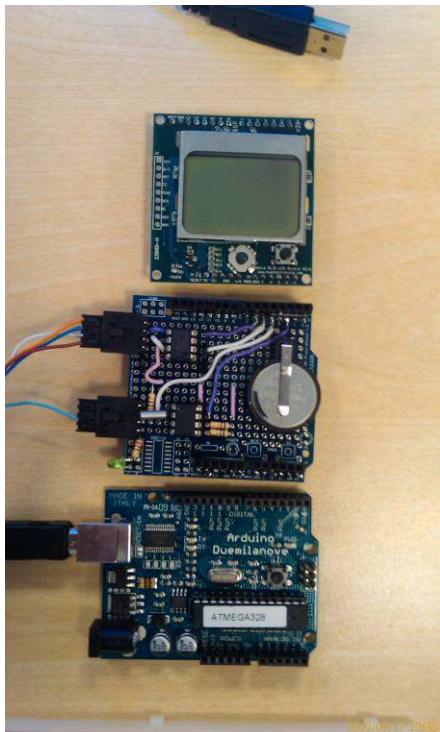
**Interface Board Wiring Schematic**



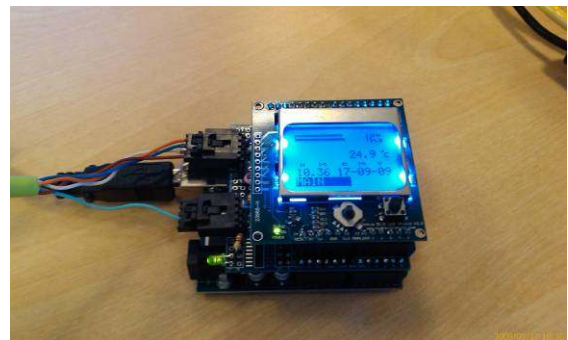
**Top View**



Bottom View



P.S. The name Krusduino was coined in honour of our trusty clown fish called "Krusty" who lives in the original tank that used the first prototype LED lighting controller.



Have fun. ☺