7x31 led matrix

Because that's what Styrge built, now we recycle the frame for something more usefull. It will be treated as 8x32 for simplified control, the last row&column just do not actually do anything.

Wikipage: http://wiki.helsinki.hacklab.fi/index.php/LargeLEDScreen
Pictures:

- https://www.dropbox.com/sh/os78jiufbp1gh6l/XEdZ-XlLfB
- http://www.flickr.com/photos/ermuggo/8118714465/in/pool-2089172@N20/

github: https://github.com/HelsinkiHacklab/ledmatrix

Phase 1: single color, no PWM

Call it proof-of-concept, will be wired with cheap-ass leds just to test the ideas we have.

Phase one was skipped...

Phase 2: PWM:d RGB

The fun part...

Wired so that we have high-power (2A) PNP transistor feeding the Common-Anode of a row
and 3x4 shift-registers to sink the colors (again same board as above, resistor values as per color).

Driving this will be interesting, we'll be using XMegas and leverage the DMA, ~~suovula and zzorn have some idea of how to keep calculating the bit-patterns for PWM in between the DMA pushing data to the shift-regs.~~ will use BAM/MIBAM instead of traditional PWM so there is less calculating to do.

This is not only quite insane amount of soldering quite challenging code-wise as well...

First version of the sw uses stock arduino so that it's understandable by beginners too.

FUTURE

Screen will be used in Arduino courses as display for users Arduino projects. More motivating

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22.12.2012 Wärkfest Prolems solved software is working

21.12 Wärkfest Problems with software

20.12 Rest of LEDs soldered, testing electronics

16.10 60 LEDs soldered

16.10,2012 Wiring finished. LEDS will be soldered at afternoon with full crew.

Bought 3 x 100 RGB leds from ebay, delivery 10-?? days --zzorn

RGB LED sourcing:
http://www.ebay.com/itm/100pcs-x-5mm-4-pin-RGB-Diffused-Common-Anode-LED-Red-Green-Blue-/261083069774

Styrge kävi täällä 29.9 lupasi tuoda projektista ylijääneet LEDit kunhan kerkee. Kiitti Styrge.

Other possibility http://www.satisled.com/Wholesale-Discount-led-lamps-rgb-full-color_c27.html