

Science and Tech Projects Group Report

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Hydroponics Project Update

In Sci/Tech meeting on Sunday 20th October we decided to enter our hydroponics project in the upcoming Monash Mini Maker Faire on Sunday 1st December. This has somewhat taken focus off an all-singing all-dancing setup and onto something that can be cobbled together quickly for the show.

The initial concept was to have a welded steel frame. That morphed into bolt-together racking. The new Q&D (Quick and Dirty) setup is getting a frame made out of timber scavenged (legally!) from a building site, with plastic tubs from Bunnings. I undertook to do the grow lights. These will consist of red, blue and white LEDs (Light Emitting Diodes) in an approximate ratio of 3:1:1. The blue and red are the actual grow lights. The white is to have normal lighting for viewing the plants. The LEDs come as a self-adhesive flexible strip, so they are quite easy to mount. There's no need to individually mount and wire hundreds of LEDs.

I ordered the red and blue LEDs strips off eBay from a local stock, and they arrived the other day. I already have enough white ones in my component collection. The power supply (this many LEDs requires a pretty beefy power supply) will be an old re-purposed computer supply. I will be cobbling together a simple electronics controller to allow the lights to be controlled from some kind of front panel, possibly a touch screen. I have all the bits required to make high current dimmer/drivers (this is the low end of what

I did for a living).

The hydroponics system is a project of the Science and Tech Projects Group, which meets 1st and 3rd Sundays at Moorabbin. It will be exhibited under the Melbourne Computer Club brand.

The Microcontroller Workshop SIG is also mounting a display under the Melb PC banner. That will consist of a number of projects from members. It's still a little fluid, but I hope we will have Rob Conway's marvelous model steam engine, John Shirt's solar reflector, Sean Clarke's Scary Skull and a retro game from Bill Sakell. I am resurrecting my RoboMite wheeled robot, and trying to find time and head-space to teach it a new set of tricks.