

Arduino pin allocations

- 0 RXD (serial debugging)
- 1 TXD (serial debugging)
- 2
- 3
- 4
- 5 Status LED
- 6 used by DMD controller
- 7 used by DMD controller
- 8 used by DMD controller
- 9 used by DMD controller
- 10 SPI SS, DMD controller
- 11 SPI MOSI, DMD controller
- 12 SPI MISO, DMD controller
- 13 SPI SCK, DMD controller
- A0/D14
- A1/D15
- A2/D16
- A3/D17
- A4/D18 I2C SDA (data) used for 20x4 LCD display & MCP23017 I/O expanders
- A5/D19 I2C SCL (clock) used for 20x4 LCD display & MCP23008 I/O expanders

I2C bus addresses

- 0x20 hotkey MCP23008 IC
- 0x21 matrix keypad MCP23008 IC
- 0x27 2004 character LCD display

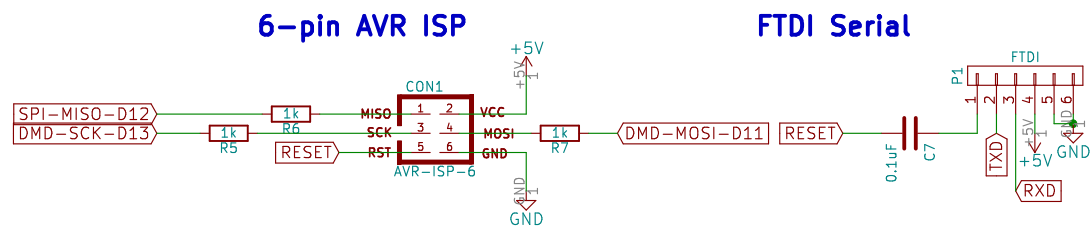
Designed by Geoff Steele & Lincoln Buell

Sheet: /  
File: SmartyKAT.sch

**Title: SmartyKAT controller**

Size: A4 Date: Monday, 08 June 2015  
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Id: 1/4



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Sheet: /prog/

File: prog.sch

**Title: Programming headers**

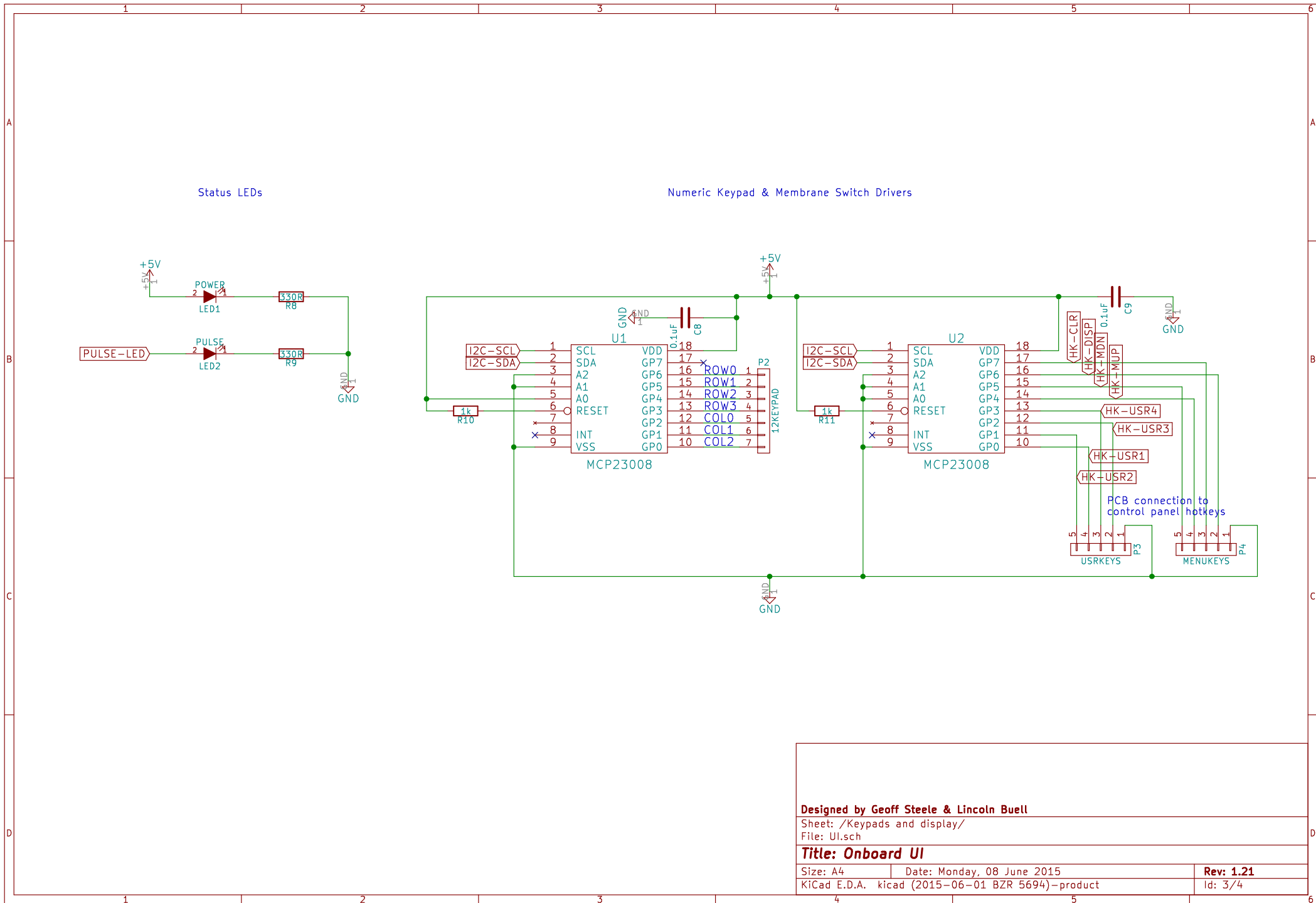
Size: A4

Date: Monday, 08 June 2015

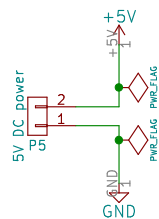
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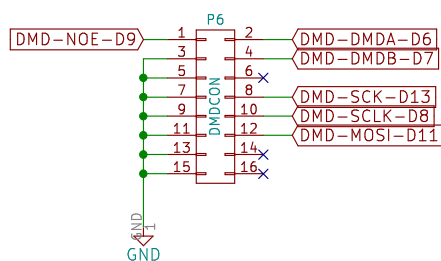
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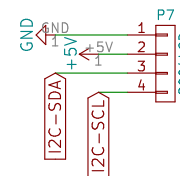
5V DC Power



DMD connection



I2C 20x4 character LCD display  
(populated for SmartyKAT only)



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Sheet: /External Connections/

File: conn.sch

**Title: External connections (excl keypads)**

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