

# FreeSoC2 (Dev-13229)

## Arduino Configuration

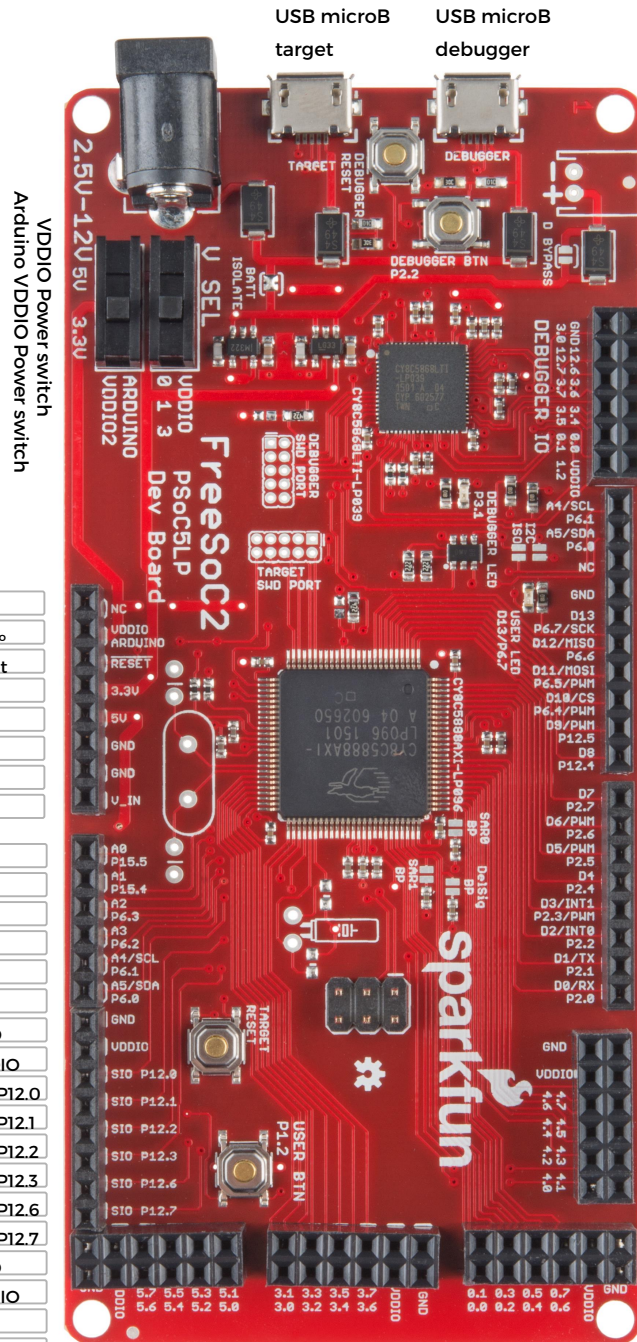
### LEDs

Debugger LED (lit if can't detect a host; flash during data transfer)  
User LED: D13/P6.7

|      |          |       |          |
|------|----------|-------|----------|
| 3.0  | Debugger | GND   | GND      |
| 12.7 | Debugger | 12.6  | Debugger |
| 3.7  | Debugger | 3.6   | Debugger |
| 3.5  | Debugger | 3.4   | Debugger |
| 0.1  | Debugger | 0.0   | Debugger |
| 1.2  | Debugger | VDDIO | VDDIO    |
| A4   | A4       | P6.4  | A4 SDA   |
| A5   | A5       | P6.8  | A5 SCL   |
| NC   |          |       |          |
| GND  | GND      |       |          |
| D13  | D13      | P6.7  | SCK      |
| D12  | D12      | P6.6  | MISO     |
| D11  | D11      | P6.5  | PWM MOSI |
| D10  | D10      | P6.4  | PWM CS   |
| D9   | D9       | P12.5 | PWM      |
| D8   | D8       | P12.4 |          |
| D7   | D7       | P2.7  |          |
| D6   | D6       | P2.6  | PWM      |
| D5   | D5       | P2.5  | PWM      |
| D4   | D4       | P2.4  |          |
| D3   | D3       | P2.3  | PWM INT1 |
| D2   | D2       | P2.2  | INT0     |
| D1   | D1       | P2.1  | TX       |
| D0   | D0       | P2.0  | RX       |

|       |       |       |       |
|-------|-------|-------|-------|
| GND   | GND   | GND   | GND   |
| VDDIO | VDDIO | VDDIO | VDDIO |
| 4.6   | 4.6   | 4.7   | 4.7   |
| 4.4   | 4.4   | 4.5   | 4.5   |
| 4.2   | 4.2   | 4.3   | 4.3   |
| 4.0   | 4.0   | 4.1   | 4.1   |

|       |       |       |       |
|-------|-------|-------|-------|
| GND   | GND   | GND   | GND   |
| VDDIO | VDDIO | VDDIO | VDDIO |
| 0.7   | 0.7   | 0.6   | 0.6   |
| 0.5   | 0.5   | 0.4   | 0.4   |
| 0.3   | 0.3   | 0.2   | 0.2   |
| 0.1   | 0.1   | 0.0   | 0.0   |



VDDIO Power switch  
Arduino VDDIO Power switch

|        |               |
|--------|---------------|
| NC     | NC            |
| VDDIO2 | VDDIO Arduino |
| Reset  | Reset         |
| 3.3V   | 3.3V          |
| 5V     | 5V            |
| GND    | GND           |
| GND    | GND           |
| Vin    | V_IN          |

|     |       |      |    |
|-----|-------|------|----|
| A0  | P15.5 | A0   | A0 |
| A1  | P15.4 | A1   | A1 |
| A2  | P6.3  | A2   | A2 |
| A3  | P6.2  | A3   | A3 |
| SDA | A4    | P6.1 | A4 |
| SCL | A5    | P6.0 | A5 |

|     | GND   | GND       |
|-----|-------|-----------|
|     | VDDIO | VDDIO     |
| SIO | P12.0 | SIO P12.0 |
| SIO | P12.1 | SIO P12.1 |
| SIO | P12.2 | SIO P12.2 |
| SIO | P12.3 | SIO P12.3 |
| SIO | P12.6 | SIO P12.6 |
| SIO | P12.7 | SIO P12.7 |

|       |       |       |       |
|-------|-------|-------|-------|
| GND   | GND   | GND   | GND   |
| VDDIO | VDDIO | VDDIO | VDDIO |
| 5.6   | 5.6   | 5.7   | 5.7   |
| 5.4   | 5.4   | 5.5   | 5.5   |
| 5.2   | 5.2   | 5.3   | 5.3   |
| 5.0   | 5.0   | 5.1   | 5.1   |

|       |       |       |       |
|-------|-------|-------|-------|
| 3.1   | 3.1   | 3.0   | 3.0   |
| 3.3   | 3.3   | 3.2   | 3.2   |
| 3.5   | 3.5   | 3.4   | 3.4   |
| 3.7   | 3.7   | 3.6   | 3.6   |
| VDDIO | VDDIO | VDDIO | VDDIO |
| GND   | GND   | GND   | GND   |

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|         |         |         |
|---------|---------|---------|
| Name    | Arduino | Serial  |
| Power   | Port    | Ext Int |
| GND     | ADC     | SIO     |
| Control | PWM     |         |

### Power

Vin = 2.5V-12V  
VDDIO = 3.3V or 5V  
5V @ 500mA/ 3.3V @ 500mA

### Buttons

Debugger Reset  
Debugger button (P2.2)  
Target Reset  
Target Button (P1.2)