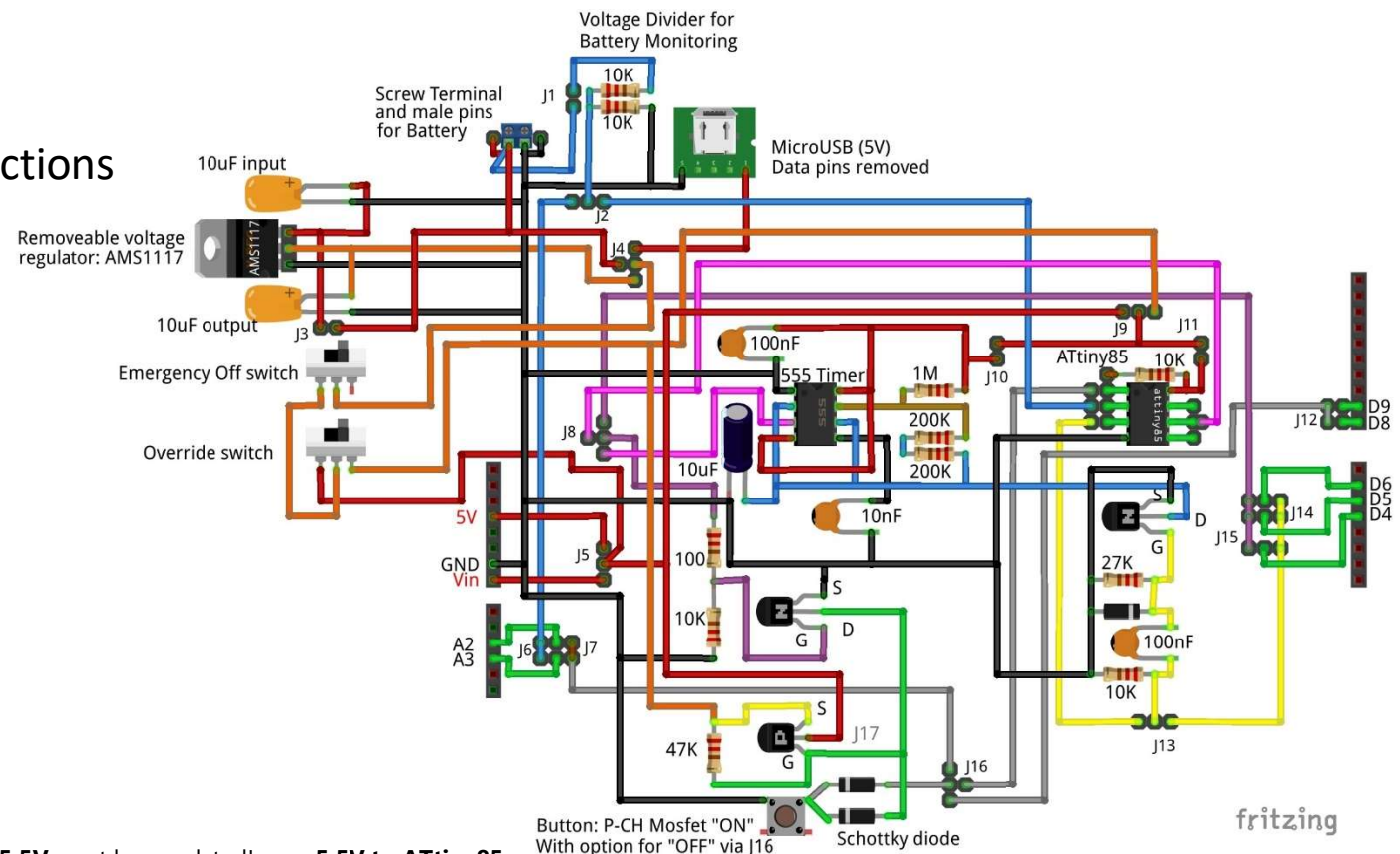


Power Shield Jumper Connections



Jumper Connectors and their function

****Remove all enable jumpers** not being used; check **J5 5V** must be regulated! **max 5.5V to ATtiny85**

- J1 - Enable Battery monitor (also select J2); battery will be connected even with emergency off switch, or if Arduino is powered off
 - J2 - Select analog pin to monitor Battery (also enable J1): Arduino (left, also select J6) or ATtiny (right, also enable at ATtiny D3)
 - J3 - Enable voltage regulator (will need to also select at J4 bottom)
 - J4 - Select main voltage source for the shield: Battery (left), voltage regulator (bottom), or micro-USB (top)
 - J5 - Select power to Arduino via: Vin (bottom, to use the Arduino voltage regulator) or 5V (top, ***must be regulated 5V to this pin**)
 - J6 - Select Arduino analog pin for battery monitor (also select J2): A2 or A3 (select one only, must be different than J7)
 - J7 - Select Arduino analog pin for button monitoring (also select at J16): A2 or A3 (select one only, must be different than J6)
 - J8 - Selecting trigger source to keep N-Ch MOSFET going: 555 for the external watchdog (bottom, also select J9 and J10), ATtiny (left, bypasses 555; also enable at ATtiny D1, J9 and J11), or Arduino (top, bypasses 555; also select at J15); You could connect an external trigger that should go high
 - J9 - Select Vcc source for ATtiny/555: Mosfets (left, **5.5V max for ATtiny**) or Battery/USB (right, also enable J4) ***If Mosfets selected, no start up power to ATtiny/555 unless button is pressed. If Battery/USB selected then ATtiny/555 are always powered on
 - J10 - Enable 555 for the external watchdog (must have J9 selected)
 - J11 - Enable ATtiny (must have J9 selected) ***The ATtiny can monitor battery, monitor the button, trigger the 555, trigger the Mosfets without the 555
 - J12 - Select Arduino pin for off button (also select at J16): D8 or D9 (select one only)
 - J13 - Select trigger source for external watchdog pulse: ATtiny (left, also enable at ATtiny D4) or Arduino (right, also select at J14)
 - J14 - Select Arduino pin to trigger 555 External Watchdog (also select J13): D4, D5 or D6 (select one only, must be different than J15)
 - J15 - Select Arduino pin to trigger N-Ch MOSFET going (also select J8): D4, D5 or D6 (select one only, must be different than J14)
 - J16 - Select pin to monitor button for power off: ATtiny (right, also enable at ATtiny D5 (rst)), or Arduino I/O (bottom, also select J12) or Arduino analog (top, also select J7)
- This button is pulled high by the 47k resistor, so this voltage should be no higher than the Vcc voltage of whatever is connected at J16
- If either Arduino analog or I/O pins are selected, the Arduino should be triggering the mosfets (J8 left) or triggering the 555 (J13 right, also select J14)
- If the ATtiny is selected, then the ATtiny should be triggering the mosfets (J8 top, also enable ATtiny D1) or triggering the 555 (J13 left, also enable ATtiny D4)