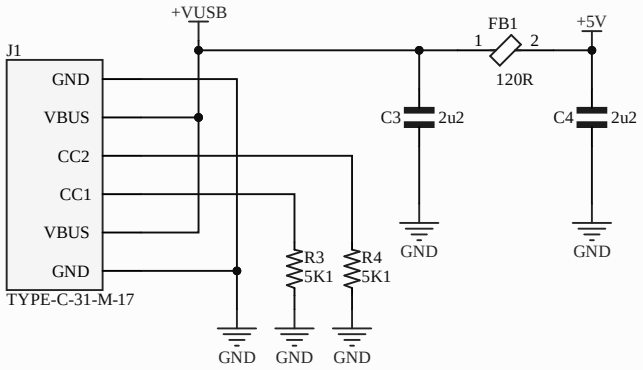
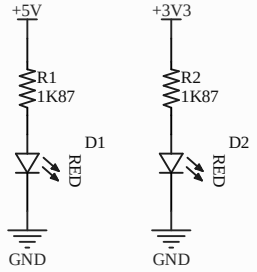
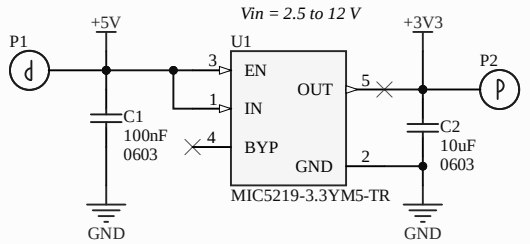
USB-C Connector



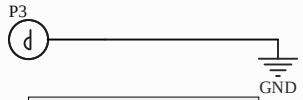
Indicator LEDs



+3V3 LDO

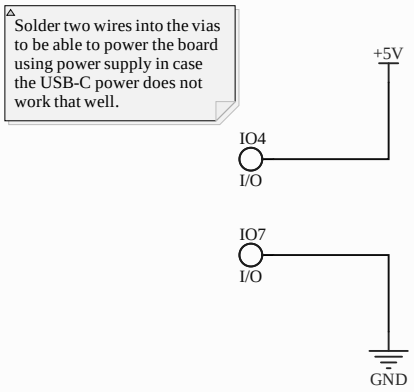


GND Pad

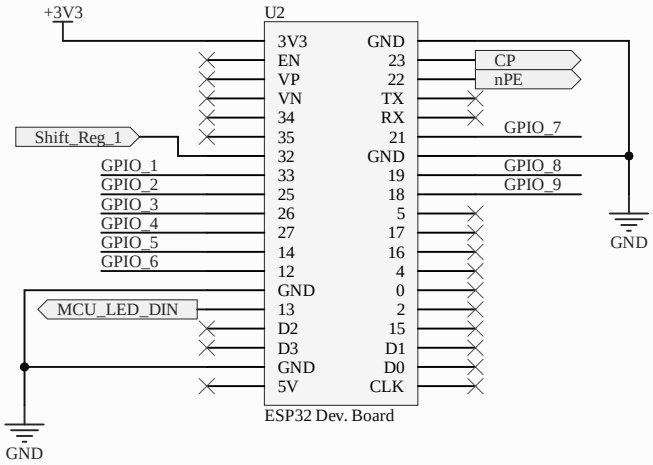


In case the level shifter doesn't work, solder wires into the MCU footprint pins to test the hardware with Arduino Mega.

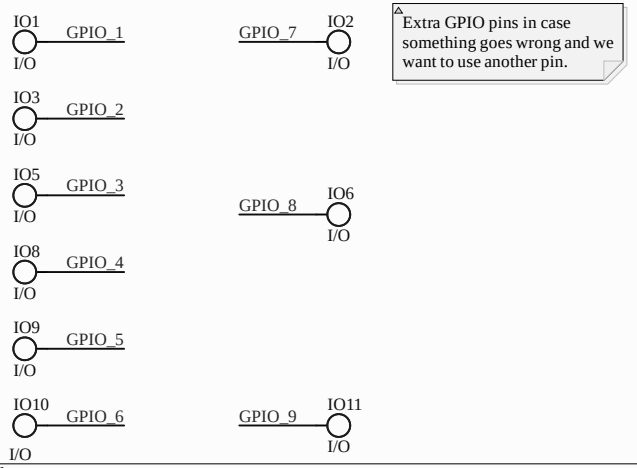
Power Supply



Microcontroller

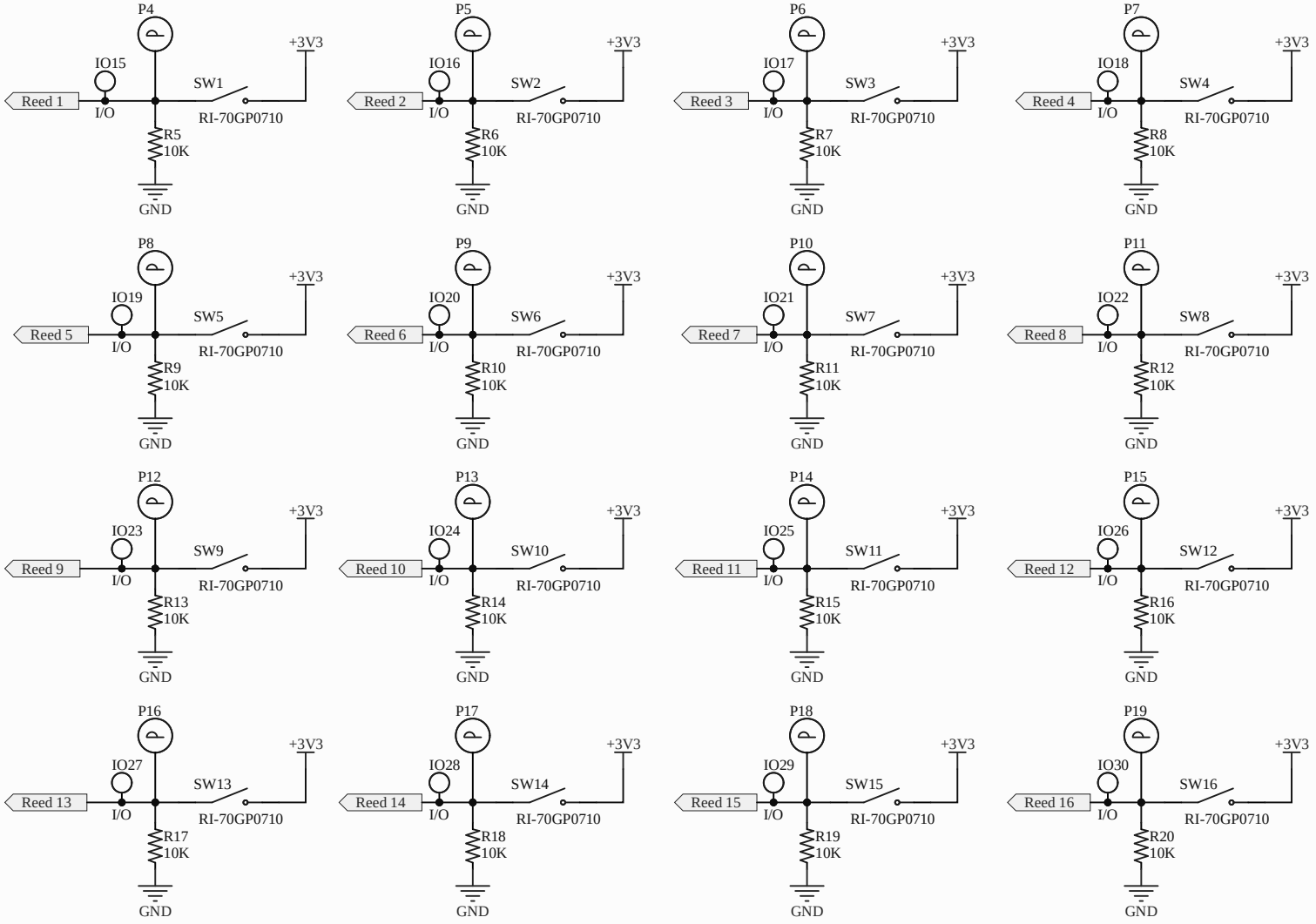


Breakout GPIO Pins



Title		
Size: A4	Number	Revision
Date: 9-28-2024	Sheet of	
File: C:\Users\..\Microcontroller and Power Management.SchDoc	Drawn By:	

Reed Switches



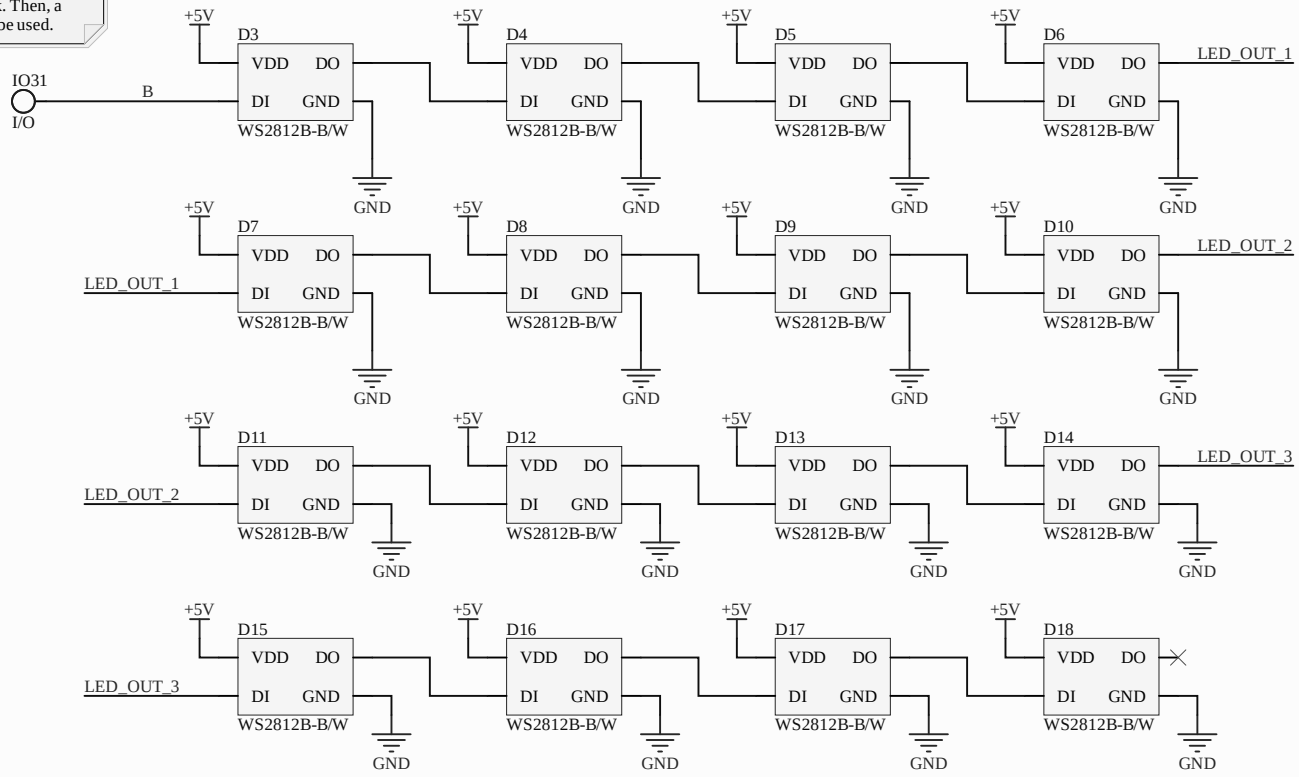
Testpoints to simplify validating the output from the shift registers.

Added vias in case the connections to shift registers from reed switch outputs is not in the correct order.

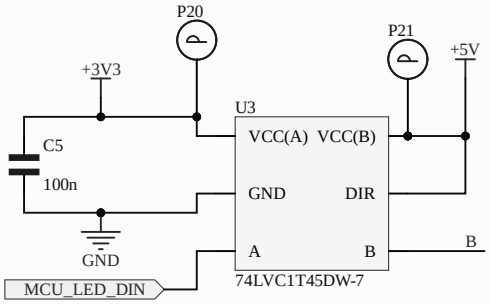
Title	Mini Chess Board - Reed Switches	
Size: A4	Number	Revision
Date: 9-28-2024		Sheet of
File: C:\Users\..\Reed Switches.SchDoc		Drawn By: Rajan Patel

LEDs

I/O pin added in case level shifter doesn't work. Then, a Arduino Mega can be used.

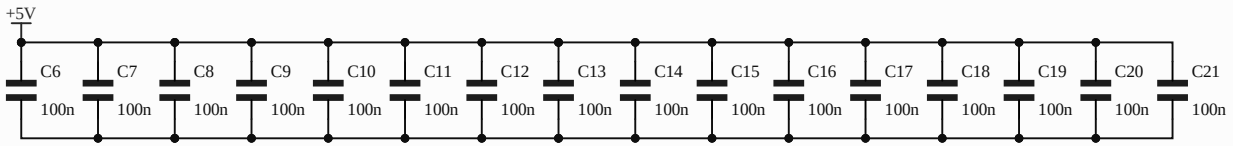


Level Shifter



Decoupling Capacitors for LEDs

Decoupling caps for LEDs are DNP



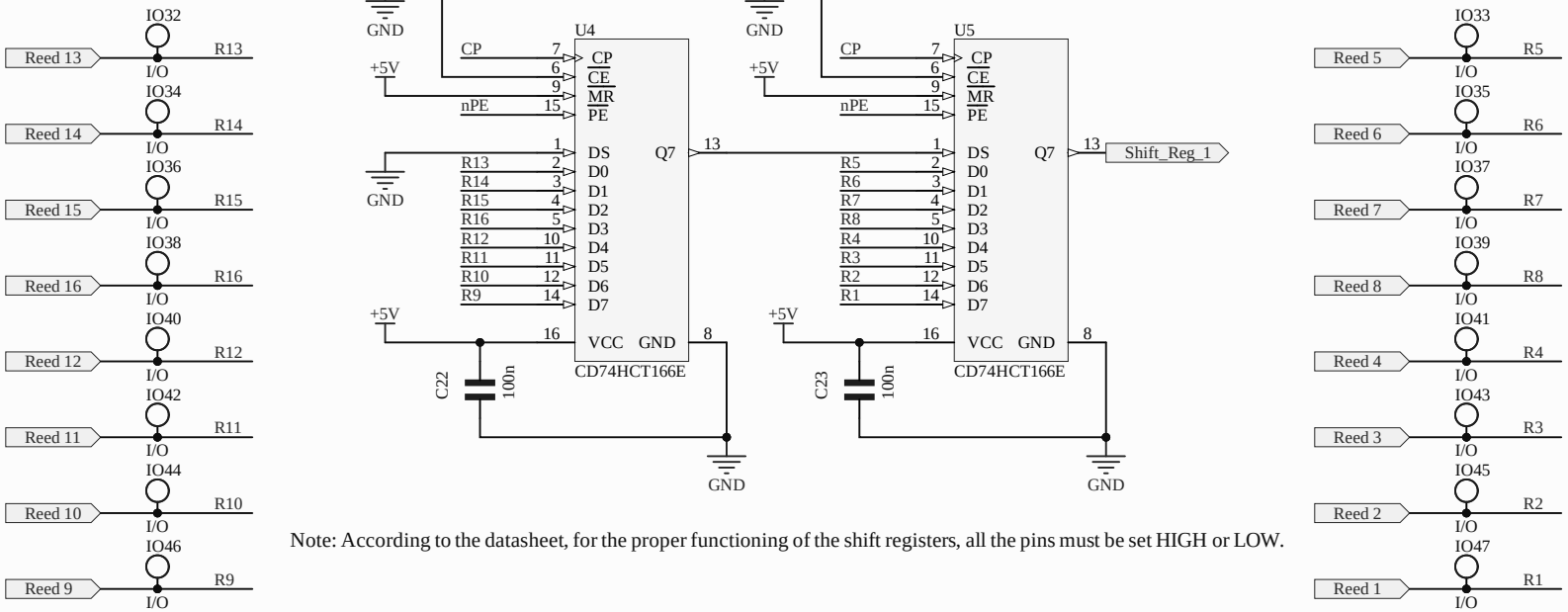
Title	Mini Chess Board - WS2818B	
Size A4	Number	Revision
Date: 9-28-2024		Sheet of
File: C:\Users\..\WS2818B.SchDoc		Drawn By: Rajan Patel

Shift Registers

CP: Clock Pulse
nPE: Parallel Enable

CP
nPE

Added vias so that if the ordering from the reed switch output with respect to the parallel inputs of the shift register is not correct, the ordering can be fixed by soldering wires.



Note: According to the datasheet, for the proper functioning of the shift registers, all the pins must be set HIGH or LOW.

Title	Mini Chess Board - Shift Registers	
Size: A4	Number	Revision
Date: 9-28-2024		Sheet of
File: C:\Users\..\Shift Registers.SchDoc		Drawn By: Rajan Patel