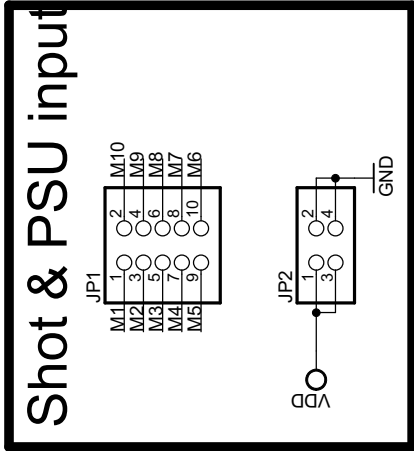


Shot & PSU input



Shot valve control & output

The diagram illustrates the electrical control and output for ten shot valves, labeled X1-1 through X10-1. Each valve is driven by a dedicated MOSFET circuit stage.

Common Components and Connections:

- VDD:** The positive supply voltage for the control circuit.
- GND:** The ground reference for the control circuit.
- 1N4004 Diodes (D1-D10):** These diodes are connected in series with the VDD supply to the gate of each MOSFET. The cathode of each diode is connected to VDD, and the anode is connected to the gate of the corresponding MOSFET.
- IRF520 MOSFETs (Q1-Q10):** These MOSFETs are used to switch the solenoid valves. The gate of each MOSFET is connected to the anode of the 1N4004 diode. The drain of each MOSFET is connected to the solenoid valve, and the source is connected to GND.
- MST2V Solenoid Valves (X1-10):** These valves are connected to the drain of each MOSFET. The other terminal of each valve is connected to VDD.

Individual Valve Stages:

- Valve X1-1:** Controlled by MOSFET Q1. Diode D1 is connected to VDD. The solenoid valve is connected to the drain of Q1.
- Valve X2-1:** Controlled by MOSFET Q2. Diode D2 is connected to VDD. The solenoid valve is connected to the drain of Q2.
- Valve X3-1:** Controlled by MOSFET Q3. Diode D3 is connected to VDD. The solenoid valve is connected to the drain of Q3.
- Valve X4-1:** Controlled by MOSFET Q4. Diode D4 is connected to VDD. The solenoid valve is connected to the drain of Q4.
- Valve X5-1:** Controlled by MOSFET Q5. Diode D5 is connected to VDD. The solenoid valve is connected to the drain of Q5.
- Valve X6-1:** Controlled by MOSFET Q6. Diode D6 is connected to VDD. The solenoid valve is connected to the drain of Q6.
- Valve X7-1:** Controlled by MOSFET Q7. Diode D7 is connected to VDD. The solenoid valve is connected to the drain of Q7.
- Valve X8-1:** Controlled by MOSFET Q8. Diode D8 is connected to VDD. The solenoid valve is connected to the drain of Q8.
- Valve X9-1:** Controlled by MOSFET Q9. Diode D9 is connected to VDD. The solenoid valve is connected to the drain of Q9.
- Valve X10-1:** Controlled by MOSFET Q10. Diode D10 is connected to VDD. The solenoid valve is connected to the drain of Q10.

