

Preparing Power Distribution Board

This file contains instructions to make a power supply distribution circuit for connecting DC motors, motor driver and Arduino Uno Development board.

Required Hardware:

1. Perf Board/ General Purpose PCB
2. DC Jack Socket
3. DC Jack
4. Wires
5. Soldering Iron and Soldering wire (Not in the kit)
6. Terminal Block/ Connector (Optional) (Not in the kit)
7. Switch (Optional) (Not in the kit)

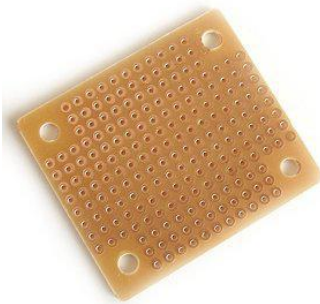


Figure 1: Perf Board

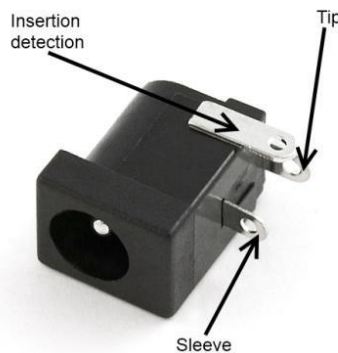


Figure 2: DC Jack Socket

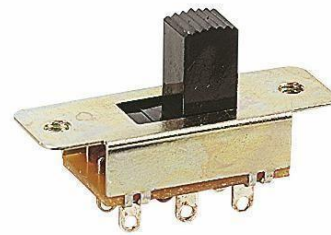


Figure 3: Switch

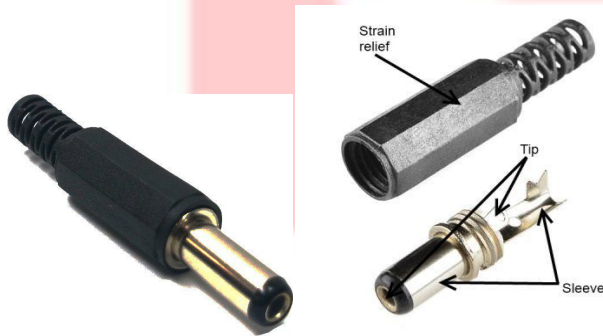


Figure 4: DC Jack



Figure5: Terminal Block

Circuit Diagram:

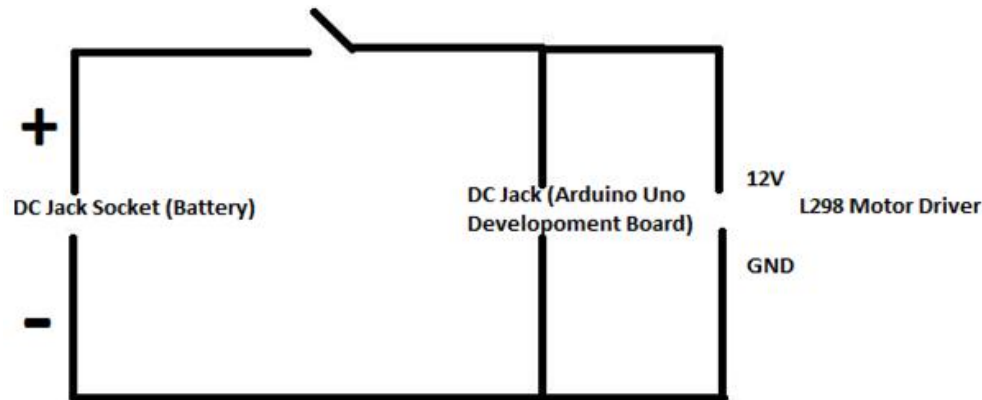


Figure6: Circuit Diagram of Power Supply Distribution Circuit

Connection Instructions:

1. First, study the circuit diagram as shown in Figure 6.
2. Solder the cables to the jack as shown in Figure 7, connect the positive cable (Red Colour) to the Tip (Figure 4) and negative cable (Black Colour) with Sleeve of the jack. **Note that cable for power jack is not provided in the kit.**



Figure 7: DC Jack Connections

3. Solder the cables to the DC Jack Socket as shown in Figure 8 below, connect the positive cable (Red Colour) to the Tip (Figure 2) and negative cable (Black Colour) to the Sleeve of the DC Jack Socket. You can also use a glue gun to glue the connections or you can use insulation tape for safety.

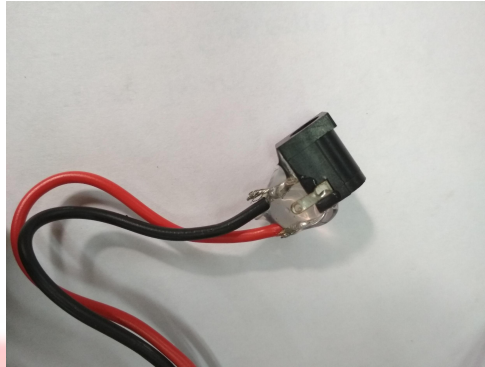


Figure 8: DC Jack Socket Connections

4. Cut the perf board 50x50 mm.
5. Solder the Terminal Block, switch to the perf board using soldering cable according to Figure 6.

After completing all the above steps the final setup of the power distribution board must look similar to the setup shown in Figure 9.

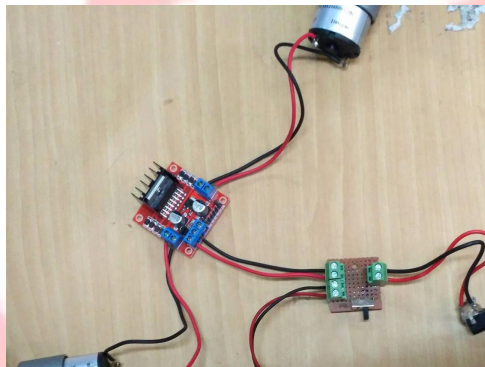


Figure 9: Power Distribution Board connection