



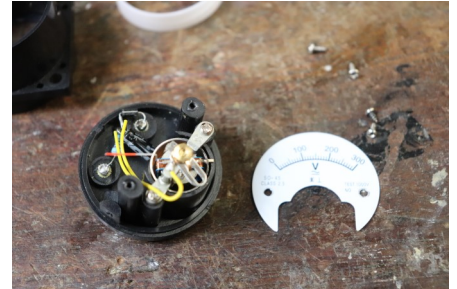
How to convert a typical moving coil meter so it can be controlled by an Arduino's PWM output.



This explanation is based on one of these typical moving coil meters available from eBay etc. Take care as it's only a rough guide and details will vary between different meters.



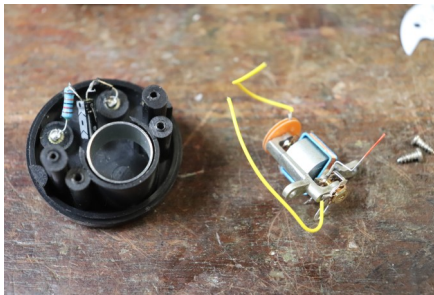
1. Remove the side screws and slide housing apart. The white ring just lifts off.



2. If replacing the legend, remove the two screws that hold it in place. Whilst removing it take care not to bend the gauge's pointer.



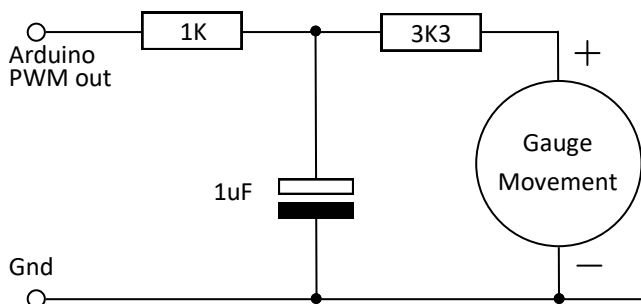
3. Remove any existing electronic components.



4. If replacing the thin metal legend with a thicker one, remove the screws that hold the movement in place and carefully slide it out so you can trim the supports.



5. With a sharp knife, cut about 1.5mm off the top of the two legend mounting posts to allow for the depth of laser engraved laminate.



6. The circuit can either be built inside each gauge or elsewhere if more convenient. Once connected up, start by setting the Arduino's PWM pin to a low value and slowly increase the value until the pointer points to the maximum gauge value (full scale deflection). This will give you the range of PWM values that correlate with the pointer's position.



7. Reverse the steps to reassemble the gauge. Take care when fitting the enclosure back together that the pin on the back of the gauge adjusting screw lines up within the slot on the gauge's movement.