



Lock-style Solenoid - 12VDC

PRODUCT ID: 1512

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[DESCRIPTION](#)

[TECHNICAL DETAILS](#)



DESCRIPTION

Solenoids are basically electromagnets: they are made of a big coil of copper wire with an armature (a slug of metal) in the middle. When the coil is energized, the slug is pulled into the center of the coil. This makes the solenoid able to pull from one end.

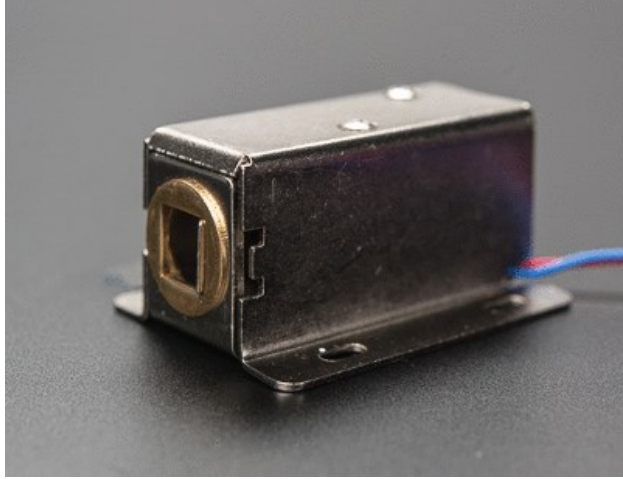
This solenoid in particular is nice and strong, and has a slug with a slanted cut and a good mounting bracket. It's basically an electronic lock, designed for a basic cabinet or safe or door.

Normally the lock is active so you can't open the door because the solenoid slug is in the way. It

does not use any power in this state. When 9-12VDC is applied, the slug pulls in so it doesn't stick out anymore and the door can be opened.

The solenoids come with the slanted slug as shown above, but you can open it with the two Phillips-head screws and turn it around so its rotated 90, 180 or 270 degrees so that it matches the door you want to use it with.

To drive a solenoid you will a power transistor and a diode, check [this diagram for how to wire it to an Arduino or other microcontroller](#). You will need a fairly good power supply to drive a solenoid, as a lot of current will rush into the solenoid to charge up the electro-magnet, about 500mA, so **don't** try to power it with a 9V battery!



Lock-style Solenoid - 12VDC ([8:17](#))

TECHNICAL DETAILS

- 12VDC (you can use 9-12 DC volts, but lower voltage results in weaker/slower operation)
- Draws 650mA at 12V, 500 mA at 9V when activated
- Designed for 1-10 seconds long activation time
- Max Dimensions: 41.85mm / 1.64" x 53.57mm / 2.1" x 27.59mm / 1.08"
- Dimensions: 23.57mm / 0.92" x 67.47mm / 2.65" x 27.59mm / 1.08"
- Wire length: 222.25mm / 8.75"
- Weight: 147.71g
- [Diagram](#)
- [SketchUp Datasheet](#)

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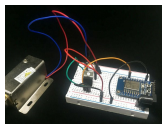
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Small Push-Pull Solenoid -



Large push-pull solenoid



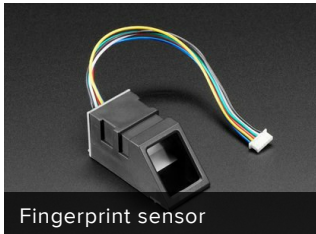
TIP120 Power Darlington



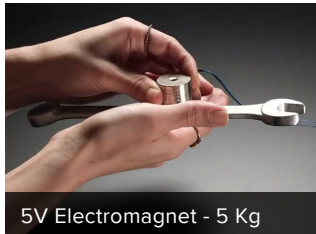
N-channel power MOSFET



Plastic Water Solenoid Valve



Fingerprint sensor



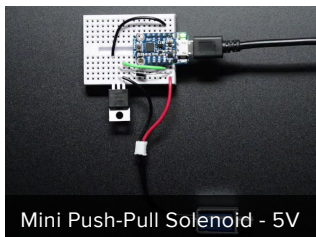
5V Electromagnet - 5 Kg



P-channel Power MOSFET -



5V Electromagnet - 10 Kg



Mini Push-Pull Solenoid - 5V



5V Electromagnet - 25 Kg

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