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Tool Dot

Using and Installation Guide: v1.1

For large, full color pictures, and how-to video go to:

www.lab424.com/using/tool-dot

Find answers to common questions at:

www.lab424.com/support-forums/tool-dot

Send us your questions at:

www.lab424.com/contact/project

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Project safety is your responsibility

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- Make sure you have adequate skills and experience to construct the project.
- Make sure you know how to properly use all equipment.
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Thanks for buying some Tool Dots!

Tool Dots use very strong magnets that require special handling before mounting them to your wall. Make sure to read the precautions in the included Using Guide before handling to avoid mishaps. **To see larger, full color pictures and video on how to handle and use Tool Dots go to:**

www.lab424.com/using/tool-dot

Enjoy!

Introduction

Technically, installing Tool Dots is simply a matter of removing them from the packaging, peeling off the adhesive backing, and sticking them to a wall. However, these magnets have 5.2 lbs (2.36 kg) of pull, and contain a permanent adhesive that has temperature and humidity limitations. This warrants precautions while handling them before they are mounted to your wall, and serious consideration where to install the Tool Dots so they are convenient, have a long service life, and do not pose a danger.



Precautions

Here are some precautions to consider when handling, installing, and using Tool Dots.

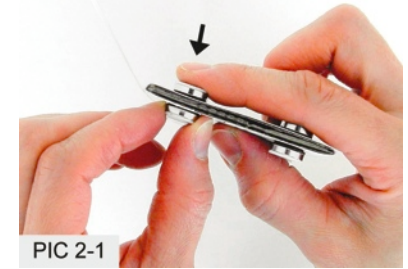
- **Keep out of reach of children and pets.** Tool Dots are small and can be swallowed or pose a choking hazard if compromised.
- **Indoor use only.** Tool Dots are designed to operate from 0 - 105° F (-18 - 41° C). Extreme temperatures and humidity may weaken the adhesive.
- **Adhesive is permanent.** The Tool Dot is intended for permanent installations. If forcibly removed, the adhesive on back will either tear the surface or leave the foam backing stuck to the surface.
- **Magnets are very strong (5.2 lbs of pull).** Follow the handling instructions carefully while removing them from the packaging. Do not allow magnets to snap together with their full force while handling. They are brittle and may break in a collision sending metal pieces in all directions.
- **Magnetic fields from these magnets can cause damage.** Do not bring within 12 inches of any magnetic based storage devices such as desktop/laptop computers, hard drives, floppy disks, cassette tapes, VHS tapes, or credit cards. Keep away from computer monitors, VCR's, and TV's. Anyone with a Pacemaker should keep at least 3 feet from magnets. A Pacemaker may be damaged or switched into "Test Mode". If unsure, consult your doctor.
- **Do not cut, saw, drill, or burn.** Cutting, sawing, drilling will break the magnet, and create a very flammable dust. Burning magnets will produce toxic fumes.
- **Do not use with irreplaceable items.** Do not use for antiques, heirlooms, alien artifacts, or other valuable or irreplaceable items. These things are best kept in display cases guarded by KillBots or feral lab minions.
- **Do not install over head.** Never hang above bed or in other places that may cause bodily harm if the Tool Dots were to fall.

Handling

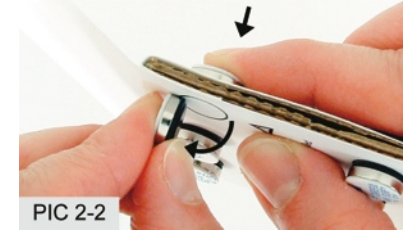
Tool Dots are packaged on a cardboard panel. Each Tool Dot is held in place on the panel by another Tool Dot on the opposite side. When you remove a Tool Dot, the Tool Dot on the backside will fall away. You will need to support the Tool Dot on the back during removal, and make sure removed Tool Dots do not come too close to each other or any metal objects.

Removing Tool Dots From Package

To remove a Tool Dot, support the Tool Dot on the back with your index finger preventing it from moving. (PIC 2-1) Roll the Tool Dot on the front up on end and grab it firmly with your thumb and index finger. (PIC 2-2) Set it on a table away from metal objects and other Tool Dots. Now grab the Tool Dot off the back firmly with your thumb and index finger. (PIC 2-3) Set it on a table at least 4 inches (10.2 cm) from the other Tool Dot. (PIC 2-4)



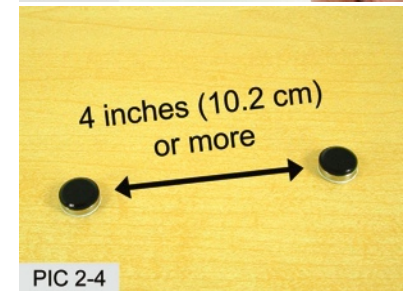
PIC 2-1



PIC 2-2



PIC 2-3



PIC 2-4

Storing Tool Dots

To store unused Tool Dots, leave the Tool Dots on the cardboard panel and place the panel back into the bubble bag that came with the package. (PIC 2-5, PIC 2-6) Store it in the box it shipped with away from Metal objects. (PIC 2-7)



PIC 2-5



PIC 2-6



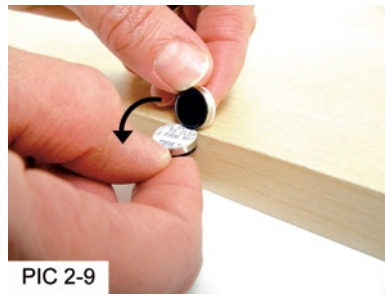
PIC 2-7

Separating Tool Dots

If two Tool Dots are stuck together it will be difficult to separate them. To separate Tool Dots, place the Tool Dots on an edge of a table so that one Tool Dot is hanging over the edge. (PIC 2-8) Push down with your thumb to slide or roll the Tool Dot off the other. (PIC 2-9) Grab each Tool Dot firmly with your fingers. (PIC 2-10)



PIC 2-8



PIC 2-9

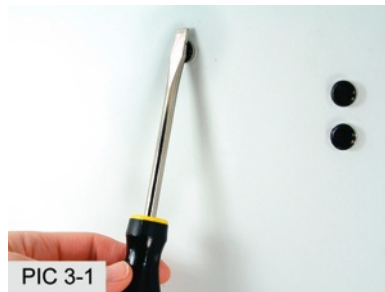


PIC 2-10

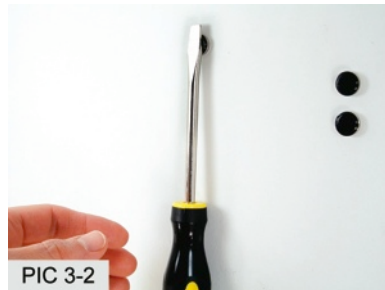
Using

To use a Tool Dot simply move your tool slowly towards the Tool Dot until it grabs the tool and pulls it to the surface. (PIC 3-1, PIC 3-2) Do not slam the tool against the Tool Dot. Such force may crack the magnet.

Prefer video? We have a video on using Tool Dots at:
www.lab424.com/using/tool-dot



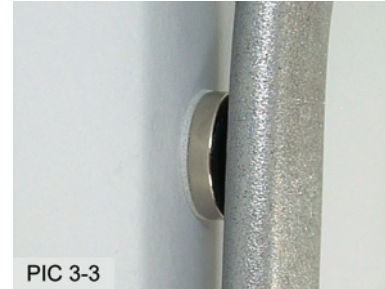
PIC 3-1



PIC 3-2

Weight Limitations

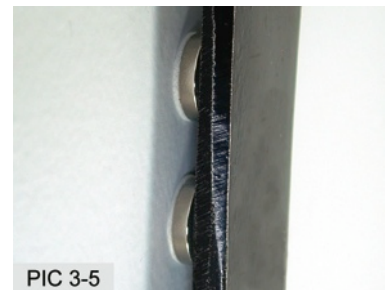
The Tool Dot has been tested to hold up to 1/2 lb (0.23 kgs) continuously with a symmetrically, balanced tool. (PIC 3-3) Heavier or odd shaped tools may not be held as well with a single Tool Dot. You can determine this by looking at the tool from the side. If the foam adhesive backing is sharply angled, then the tool is trying to pull the dot off the wall. (PIC 3-4) This may lead to premature failure. To fix this you need to distribute the weight across more Tool Dots. Add Tool Dots in strategic places to support the tool. (PIC 3-5)



PIC 3-3



PIC 3-4



PIC 3-5

Temperature Limitations

Tool Dots are designed to operate indoors, from 0 - 105° F (-18 - 41° C). Temperatures outside this range may weaken the adhesive.

Cleaning Tool Dots

A Tool Dot may have trouble holding your tool if it gets too dirty. To clean the surface use a 50/50 solution of Isopropyl alcohol and water and dry it off with a cloth. (PIC 3-6)



PIC 3-6

Hanging Non-Metal Objects

You can hang non-metallic objects as well. The trick is to add a piece of metal to your object to give the Tool Dot something to grab. For instance, you can use "Super Glue" or double-stick foam tape to attach a washer to the back of a tool, or add a metal ring on a lanyard. (PIC 3-7, PIC 3-8, PIC 3-9)



PIC 3-7



PIC 3-8



PIC 3-9

Installation

Though installation of the Tool Dots is simple, we highly recommend spending a little time planning and cleaning your surface to help give your Tool Dots a long service life.

Prefer video? We have a video on installing Tool Dots at: www.lab424.com/using/tool-dot

Parts and Materials

- Tool Dots
- 1 roll masking tape
- 1 pen
- wall cleaning supplies



PIC 4-3

(3) Prepare the surface and work area:

Dust, dirt, and low/high temperatures on the surface will reduce the holding power of the adhesive. You should clean the surface according to the surface manufacturer's instructions. On most surfaces a 50/50 mixture of Isopropyl Alcohol and water will clean the surface nicely (test on a small, inconspicuous area first). (PIC 4-4) Dry the surface with a lint-free cloth before application. (PIC 4-5) For an optimal bond, the temperature of the surface should be between 65° and 100° F. Remove all metal objects from the work area. (PIC 4-6)



PIC 4-4



PIC 4-5



PIC 4-6

(1) Choose your surface:

Review the Precautions and pick your install surface. The Tool Dot's adhesive backing is a permanent, rubber-based foam that can bond with all sorts of surfaces including wood, plastics, metal, powder coated materials, and painted materials. Surfaces may be slightly textured or uneven since the foam will mold to the surface with firm pressure. Painted surfaces should be in good condition and not show signs of flaking. Weakening paint means the Tool Dot may tear away from the surface. (PIC 4-2)



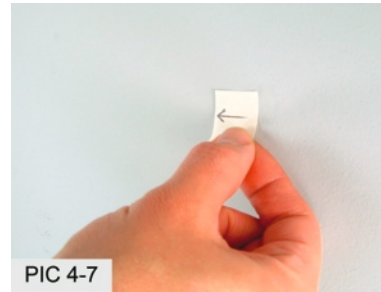
PIC 4-2

(2) Plan your layout:

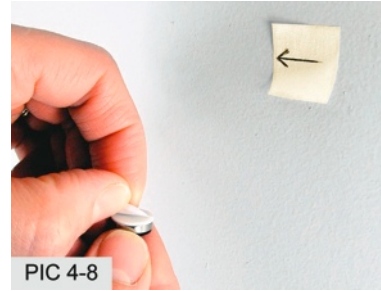
It's a good idea to roughly plan how you want to position your tools. On a table arrange your tools as desired. Keep in mind that heavy or odd-shaped tools may need to use more than one Tool Dot as noted in the Using Section. If possible, leave room for future expansion. (PIC 4-3)

(4) Apply a Tool Dot:

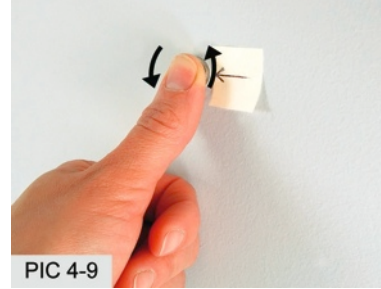
Mark the location you want to place your Tool Dot with a piece of masking tape with an arrow drawn on it. (PIC 4-7) Remove a Tool Dot from the cardboard panel as noted in the Handling Section. Peel off the protective sheet on the adhesive. (PIC 4-8) Press the Tool Dot onto the surface. Apply firm pressure while rocking your finger back and forth for at least 10 seconds to bond the adhesive with the surface properly. (PIC 4-9)



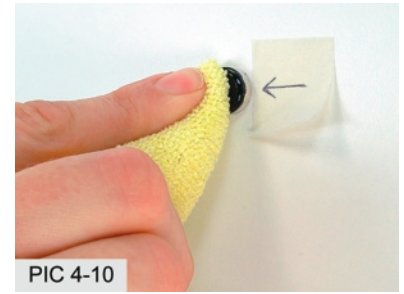
PIC 4-7



PIC 4-8



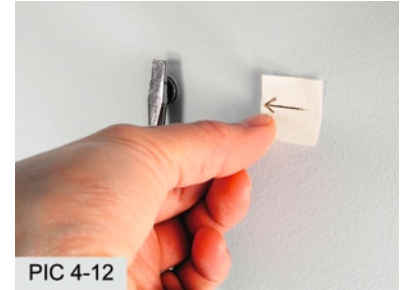
PIC 4-9



PIC 4-10



PIC 4-11



PIC 4-12

(5) Clean, test, repeat:

Clean the Tool dot with a 50/50 mixture of Isopropyl Alcohol and water to remove any oils deposited by your fingers. (PIC 4-10) Carefully place your tool on the Tool Dot to test the hold strength and position. (PIC 4-11) Heavy or odd-shaped tools may require more than one Tool Dot to hold it properly as noted in the Using Section. Move the masking tape marker to the next location. (PIC 4-12) Remove the tool and set it away from the work area. Repeat Steps 4 and 5 until you have finished your layout.

Repair

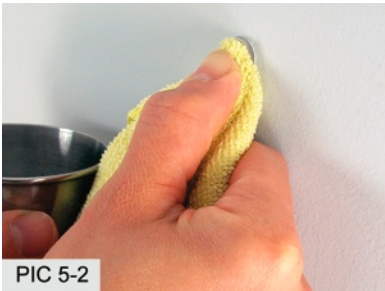
If your Tool Dot is exposed to extreme temperatures, humidity, or weight for a long period of time it may fail. Fortunately, provided the magnet isn't cracked, you can repair and put it back in service. If the magnet is cracked it should be disposed. If you do have a failure, make sure to correct the cause of the failure before using your repaired Tool Dot. This usually amounts to adjusting the temperature/humidity or adding more Tool Dots to help hold the tool better.

Bumper falls off

Remove any debris from the bumper and magnet as best as you can. (PIC 5-1) Clean the magnet and bumper with a 50/50 solution of Isopropyl alcohol and water and dry them off with a lint free cloth. (PIC 5-2) Randomly score the magnet using a nail or screw to help bond to the glue. (PIC 5-3) Spread 1-2 drops of "Super Glue" gel evenly onto the bumper. (PIC 5-4) Line up and press the bumper onto the magnet surface firmly. Apply firm pressure while rocking your finger back and forth for at least 30 seconds until the glue has set. (PIC 5-5) Clean the excess glue off with a rag. Give the glue 24 hours to cure before using the Tool Dot.



PIC 5-1



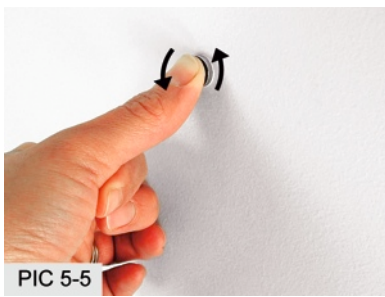
PIC 5-2



PIC 5-3



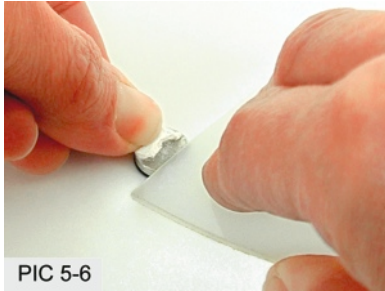
PIC 5-4



PIC 5-5

Backing Falls off

Scrape off any foam backing left on the wall surface, and repair the wall surface. Use a plastic scraper (or similar) to scrape off as much of the residue on the back of the Tool Dot as possible. (PIC 5-6) Clean the magnet surface with a 50/50 solution of Isopropyl alcohol and water and dry it off with a lint free cloth. (PIC 5-7)

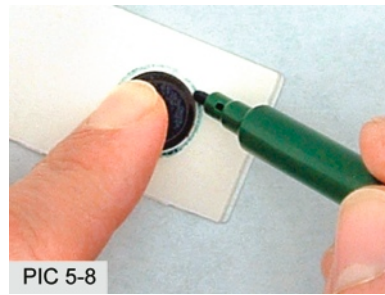


PIC 5-6



PIC 5-7

If your wall surface is bumpy/uneven, then you will need to buy some strong, permanent, double-stick foam tape that is around 1/32 inch thick. Trace the shape of the tool dot on the foam tape and cut it out. (PIC 5-8, PIC 5-9) Stick the foam tape to the magnet and set the magnet on a metal surface to help set the adhesive for about 15 minutes. (PIC 5-10) Peel off the protective sheet on the adhesive, and press the Tool Dot onto the surface. Apply firm pressure while rocking your finger back and forth for at least 10 seconds to bond the adhesive with the surface properly. (PIC 5-11)



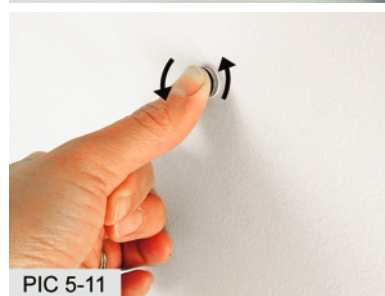
PIC 5-8



PIC 5-9



PIC 5-10



PIC 5-11

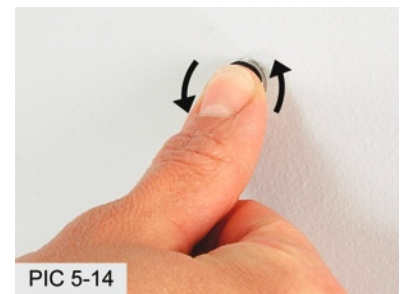
If your wall surface is flat you can use "Super Glue" if you prefer. Randomly score the magnet using a nail or screw to help bond to the glue. (PIC 5-12) Spread 1-2 drops of "Super Glue" gel evenly onto the magnet. (PIC 5-13) Apply firm pressure while rocking your finger back and forth for at least 30 seconds until the glue has set (PIC 5-14) Clean excess glue off with a rag. Give the glue 24 hours to cure before using the Tool Dot.



PIC 5-12



PIC 5-13



PIC 5-14