

LEGO CAD QUICK INSTALL GUIDE - October 2006

This guide will install:

Ldraw - the basic program (you will actually use MLCad to create models)
Ldraw Complete Parts Library - the Officially released LDraw LEGO elements
MLCad - Windows based LEGO CAD rendering/editing program
-create models, save snapshots/instruction pictures and model parts lists
LDview - A small program to view your models in fairly realistic 3D

Please read through these instructions before you start. There are a few specifics to decide beforehand. If in doubt follow the instructions exactly or email me (jodokast@earthlink.net). Keep in mind, that there are several different free programs available. These are my favorites and provide very good results.

Step 1: Download the LDraw files (2):

1. - ldraw027.exe (the basic program) –
<http://www.ldraw.org/download/software/ldraw/ldraw027.exe>

Save this file on your C:\ directory or in the location you want the \ldraw\ directory to be created. For the purposes of these instructions, the following bold statement is respected. If you decide to change where you save the file(s) on your hard drive, please alter each instruction below to reflect where you have saved your file(s). **Ldraw.org strongly recommends that you save it directly to your C:\ drive (not under any directory), because it creates a directory \ldraw\ underneath the directory where the install file is located. This will automatically cause your LDraw directory to become C:\ldraw\.** It can be placed where you wish. Just remember that it will start creating it's home where you placed it.

2. - complete.exe (the parts library) –
<http://www.ldraw.org/library/updates/complete.exe>

Save this file to the same location as ldraw027.exe on your hard drive.

Step 2: Install LDraw, the Complete Parts Library, and create the parts list:

1. Install Ldraw: Click the **Start** button in Windows and select **Run**. In the field, type **C:\ldraw027.exe -y** and click **OK**. A pop-up window will display itself extracting the necessary files. When the program is finished running, close the window.
2. Install the complete parts library: Click the **Start** button in Windows and select **Run**. In the field, type **C:\complete.exe -y** and click **OK**. When the program is finished running, close the window.

3. Now, you need to create the parts list (parts.lst file). Click **Start>Run** again. In the field, type **C:\ldraw\mklist.exe** and click **OK**. When it asks to sort by number or description, key in 'D' for Description, then wait for the program to finish and close the window.

You do not need to run C:\ldraw\ldraw.exe to continue.

Step 3: Download and Install MLCad:

<http://www.lm-software.com/mlcad/mlcad320.zip>

1. Download and Extract the zip archive to the **C:\ldraw** root directory or whatever directory you made LDraw's home (the parts.lst file should be in this directory). Installation is almost complete. Now, we just need to tell MLCad where to find the LDraw parts library.

2. Start the MLCad program. A dialog box may be displayed, telling you the path is invalid, and then the Settings Dialog of MLCad pops up where you have to enter the **C:\ldraw** root directory. Specifying the right directory is important for a correct operation of the program! MLCad will not continue until the right path has been entered. If the right path has been entered MLCad will start up and show a start screen.

3. Within MLCad, select the menu point: **File/Scan Parts** from the MLCad menu. It will tell you that it found new parts and ask if you will allow a new parts.lst file to be saved. Click the **YES** button.

Step 4: Download and install LdView:

<http://superb-east.dl.sourceforge.net/sourceforge/ldview/LDView-3100.exe>

If this link does not work click the link below and choose another mirror.

<http://prdownloads.sourceforge.net/ldview/LDView-3100.exe?download>

LDView displays LDraw/MLCad models, and consequently requires that LDraw be installed. If you install LDraw in any directory other than C:\ldraw\, and don't already have an LDRAWDIR environment variable, you will be prompted the first time LDView loads to select the directory in which LDraw is installed. Until you select the LDraw directory, you will be unable to load a model.

When you run LDView, it will open its main window and immediately present you with an open panel (assuming you didn't specify a file as part of the launch process). Select the LDraw .ldr, .dat, or .mpd file you want to view. It will then display the file in the window. Note that you can resize this window. Also note that if you open a large model, it could take a substantial amount of time to load. During this time, the status bar will indicate the progress of the load. Hitting **Escape**, or choosing **Cancel Load** from the File menu will cancel the load.

Step X: Adding New Parts to the installed parts library:

Can't find a LEGO part you need? Most brand new LEGO set elements that have not been rendered for use in CAD programs can be found in the "LDraw Parts Tracker" (use this to find/download individual parts that have not been 'Officially' released for use in LDraw/MLCad.

<http://www.ldraw.org/library/tracker/>

All of the key **NXT** set parts can be found at the link below since they are not "Officially" released by the LDraw committee as of yet. Follow the instructions at this linked page to get the parts installed properly.

<http://www.philohome.com/nxtldraw/nxtldraw.htm>

NOTE:

Every time you add new parts library updates or a single needed unofficial part you will need to follow steps 2.3 and 3.3 above to get MLCad to recognize the new part(s).

BIG NOTE:

Before you download and install unofficial parts...Please read these important notes from LDraw.org.

Unofficial Parts may be incomplete, or inaccurate, and it's likely that when they are officially released, they will be changed in ways that could mess up any model you use them in.

The LDraw folks recommend that users should grab unofficial parts one-by-one, and use them only for a specific project. If you are using MLCad, you can import the unofficial part(s) as submodels into your main model files. That way, if changes are made to the unofficial parts before they are officially released, your model won't be adversely affected.

The *best* (that is, the safest) way to install these files is to unzip them to a temporary directory, then move them to your LDraw\models directory. Don't dump them into your LDraw\parts directory, it would be very hard to sort them out of there when the officially released files become available later.

When you unzip the files, be sure to tell your ZIP tool to use the folder names, so all the files will end up in their proper subdirectory.

When installing unofficial files you might be asked if you would like to replace files that already exist...Just say "No". This means that the files have been officially released and you do not want to overwrite official part files.

References:

Links to the websites that provide more information about what you just installed.

LDraw	http://www.ldraw.org
MLCad	http://lm-software.com/mlcad/
MLCad Tutorial	http://www.hpfsc.de/mlcd_tut/tut_eng.html
LDView	http://ldview.sourceforge.net/index.html

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