



# Replacing Your Desktop PC Graphics Card

An Instruction Manual by

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## Introduction

This guide explains how to physically replace the graphics card in a modern desktop PC. Age weighs more heavily on the graphics card than most other computer parts. Even if they are well-maintained, the progressive pace of graphical fidelity in the realms of video gaming and media editing has traditionally limited the practical lifespan of graphics cards to no more than a few years. It can be challenging to keep up with the barrage of new models and new features every year, but it need not be challenging to install the cards themselves.

Following this procedure requires no significant technical knowledge. The guide only assumes you have already selected an appropriate new graphics card for your system. The physical act of replacing the card should only take about five minutes.

Whether you are a player of video games or an editor of digital media, your new graphics card will elevate your computing experience as soon as you boot up your next game or your next project. Prepare yourself for new visual horizons and enjoy.

## Parts, Tools, and Conditions

### Parts

The only part you are guaranteed to need is the new graphics card itself. You should be able to reuse the existing screws and power cable from your old card.

### Tools

The only tool you will need for this project is a screwdriver that fits the screws on the back of your computer case. Even though the side of the case may be fastened with simple thumb screws, the video card is likely secured with a Philips-head screw.

### Conditions

You will need adequate overhead lighting and a clean, flat surface wide enough to hold your desktop computer tower on its side. Do not perform this procedure outside unless you are under shelter, as moisture can damage your computer.

## Steps

### Phase One: Preparing Your Computer

1. *Turn off your computer.* You can accomplish this by opening the Start Menu, clicking on the "power" icon pictured in Figure 01, and selecting "Shut Down."

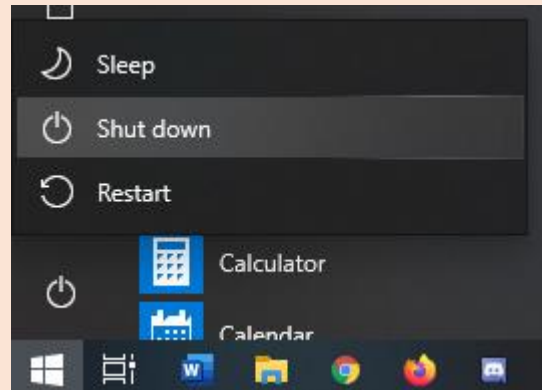


Figure 1 – "Shutting down the PC"

### CAUTION

IF YOUR PC BEGINS INSTALLING WINDOWS UPDATES, DO NOT ATTEMPT TO STOP IT. ALLOW IT TO COMPLETE THIS PROCESS BEFORE PROCEEDING. DOING OTHERWISE CAN DAMAGE YOUR COMPUTER.

2. *Disconnect your computer's power cord from the power supply.* To do this, grasp it firmly by the plug as demonstrated in Figure 2. Then pull it straight out.

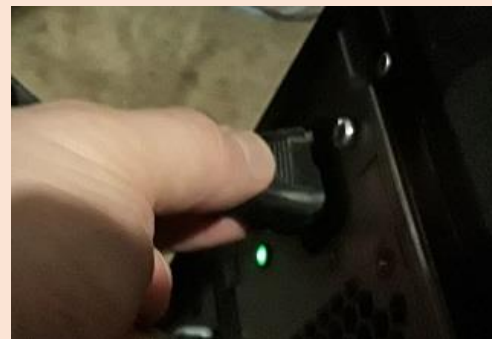


Figure 2 – "Unplug the PC"

3. *Open your computer's case.* This may require removing a screw. Some cases are fastened only with simple thumbscrews, such as the one pictured in Figure 3.



Figure 3 - "Computer Case Screw"

## Phase Two: Removing Your Old Graphics Card

4. *Locate the graphics card.* Modern graphics cards are usually identifiable by visible fans, heat sinks, or power supply connectors. Such a card is pictured in Figure 4, resting in a motherboard fixture called a “bus.”



Figure 4 - ["Inside-Computer-Case\\_36443"](#) by [Public Domain Photos](#) is licensed under [CC BY 2.0](#)

5. *Disconnect the power connector from the graphics card.* There may be more than one slotted into ports like those pictured in Figure 5.



Figure 5 - "Graphics Card Power Ports"

6. *Unscrew the graphics card.*  
Locate the screw holding the card to the rear of the case, as pictured in Figure 6.



Figure 6 - "Graphics Card Screw"

7. *Pull out the graphics card by grasping along the top and lifting it upwards.* This action is pictured in Figure 7. You may have to wiggle the card gently to loosen it from the bus.



Figure 7 - "Firmly Grasp Graphics Card"

## Phase Three: Installing Your New Graphics Card

8. *Insert the new graphics card into the bus.* Position the card above the bus with contacts facing downward. Firmly but carefully press it down with two fingers, as pictured in Figure 8.



Figure 8 - "Insert Graphics Card"

### CAUTION

LINE THE CARD UP CAREFULLY WITH THE BUS SO THE CONTACTS WILL NOT BEND WHEN YOU INSERT IT. DAMAGING THE CONTACTS MAY DESTROY YOUR NEW GRAPHICS CARD.

9. *Replace the screws holding the card in place.* Carefully line the screw up and use the screwdriver to turn it back into position, as pictured in Figure 9.

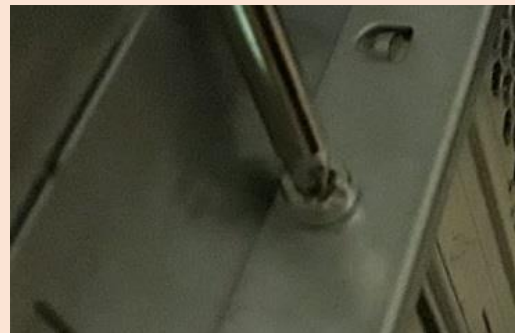


Figure 9 - "Fasten the Card"

10. *Attach the power connector.* Insert the correct power connectors into the ports on the card, as pictured in Figure 10.



Figure 10 - "Plug in Power Connector"

11. Close your computer's case by following the opening steps in reverse. Make sure all the exterior screws return to the correct holes, as pictured in Figure 11.



*Figure 11 - "Close Computer Case"*

## Conclusion

Congratulations on installing your new graphics card! Once you hook your computer back up and turn it on, Windows should automatically begin installing the necessary software to run the card. After this, you should begin the most exciting part of the upgrade process: testing your greater graphical power on a new game or project.

## Troubleshooting

Below are some issues that may arise before or after the replacement process.

Issue	Solution
<b>The power connector from my old card doesn't match my new card.</b>	Check your power supply for additional cables or adapters. If you cannot locate a suitable one, you may need to replace your power supply.
<b>My monitor cable does not fit any of the ports on the back of the new card.</b>	You can find adapters for most monitor connectors at your local electronics or department store. Be advised that not all connectors carry audio, so you should ask a store associate for assistance if you rely on speakers built into your monitor.
<b>I lost a screw from my computer, or my computer did not have enough screws to secure every part in place.</b>	Consult the manual or manufacturer's website for your computer case or your graphics card as appropriate to determine the correct size of screw. You can find most of the relevant sizes at your local hardware or department store.
<b>My new graphics card does not fit into the bus on my motherboard.</b>	Find another graphics card with the appropriate connector. You can determine the name of your bus type by checking the manual or the manufacturer's website for your PC. The most common type for modern computers is called "PCI-Express."