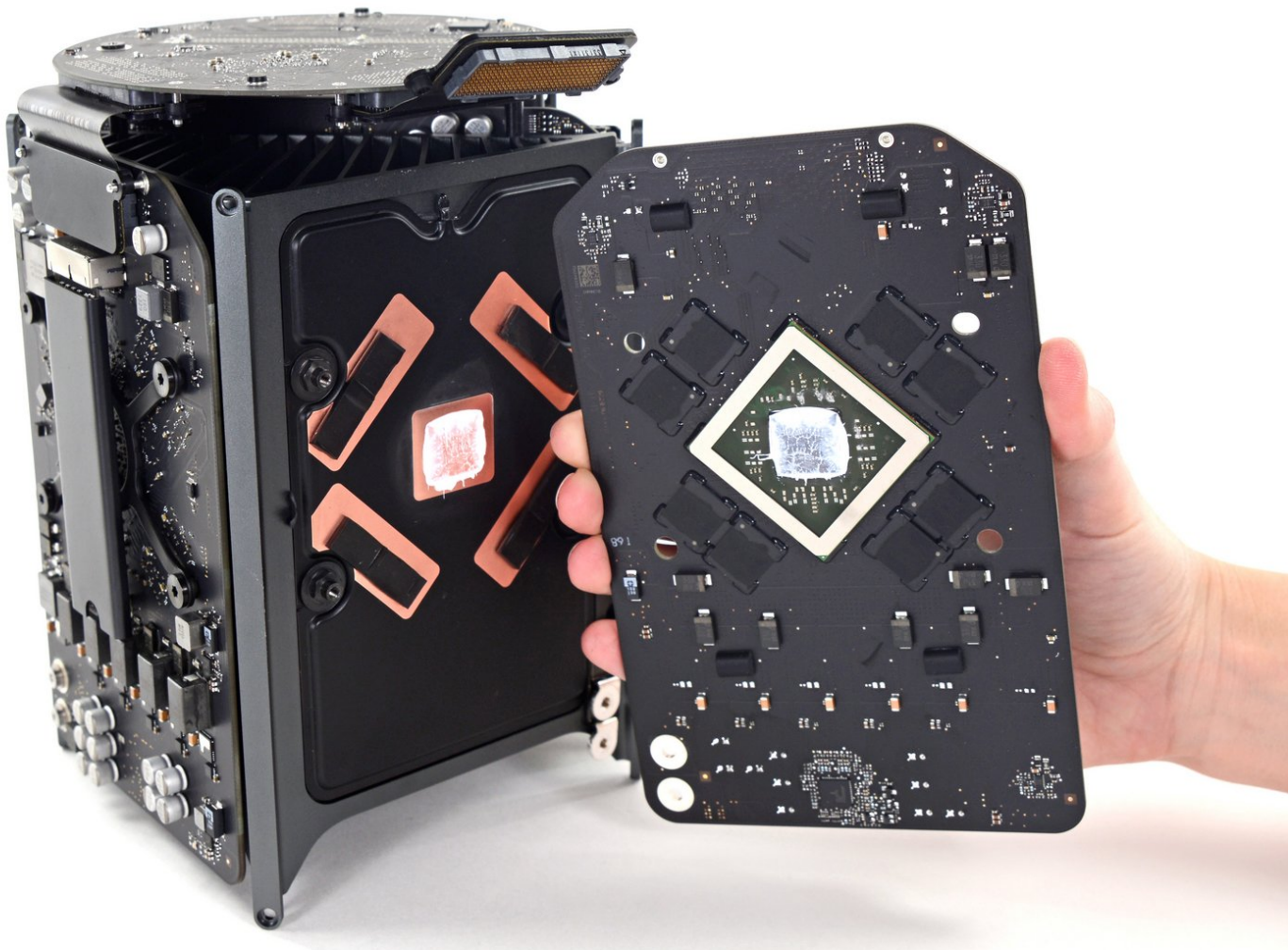




# Mac Pro Late 2013 Graphics Card Replacement

Replace the Graphics Card in your Mac Pro Late 2013.

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## INTRODUCTION

Use this guide to replace either of the dual graphics cards in your Mac Pro. The procedure is shown on one card, but it is essentially identical for either.

When you're replacing your card, be sure to [reapply a layer of thermal compound](#).

**Before beginning any work on your Mac Pro:** Unplug the computer and press and hold the power button for ten seconds to discharge the power supply's capacitors.

**Be very careful** not to touch the capacitor leads or any exposed solder joints on the back of the power supply. Only handle the board by the edges.

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### TOOLS:

- [TR9 Torx Security Screwdriver](#) (1)
  - [TR10 Torx Security Screwdriver](#) (1)
  - [Spudger](#) (1)
  - [Arctic Silver ArctiClean](#) (1)
  - [Arctic Silver Thermal Paste](#) (1)
  - [TR7 Torx Security Screwdriver](#) (1)
  - [Tweezers](#) (1)
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## Step 1 — Outer Case



- Slide the lock switch to the right, to the unlocked position.

## Step 2



- Lift the outer case straight up off the Mac Pro.

**i** It may help to push down on the center of the fan while lifting the case up.

## Step 3 — Fan Assembly



- Remove five 5.1 mm T10 Torx screws from around the outer perimeter of the fan assembly.

## Step 4



**i** The fan assembly is attached to the rest of the computer by two cables on the IO board side.

- Tilt the assembly up away from the IO board.

**!** Do not try to remove the fan assembly yet, as it is still attached by two cables.



## Step 5



- While supporting the fan assembly with one hand, loosen the two T8 captive screws in the fan cable bracket.

**⚠** These screws are captive in the Mac Pro. Do not try to remove these screws from your Mac Pro.

## Step 6



- Use a pair of tweezers to pull the fan cable bracket away from the fan assembly.

## Step 7



- Use the flat end of a spudger to disconnect the fan assembly ribbon cable from the IO board.

## Step 8



- Disconnect the fan assembly antenna cable from the IO board.
- Remove the fan assembly from the Mac Pro.

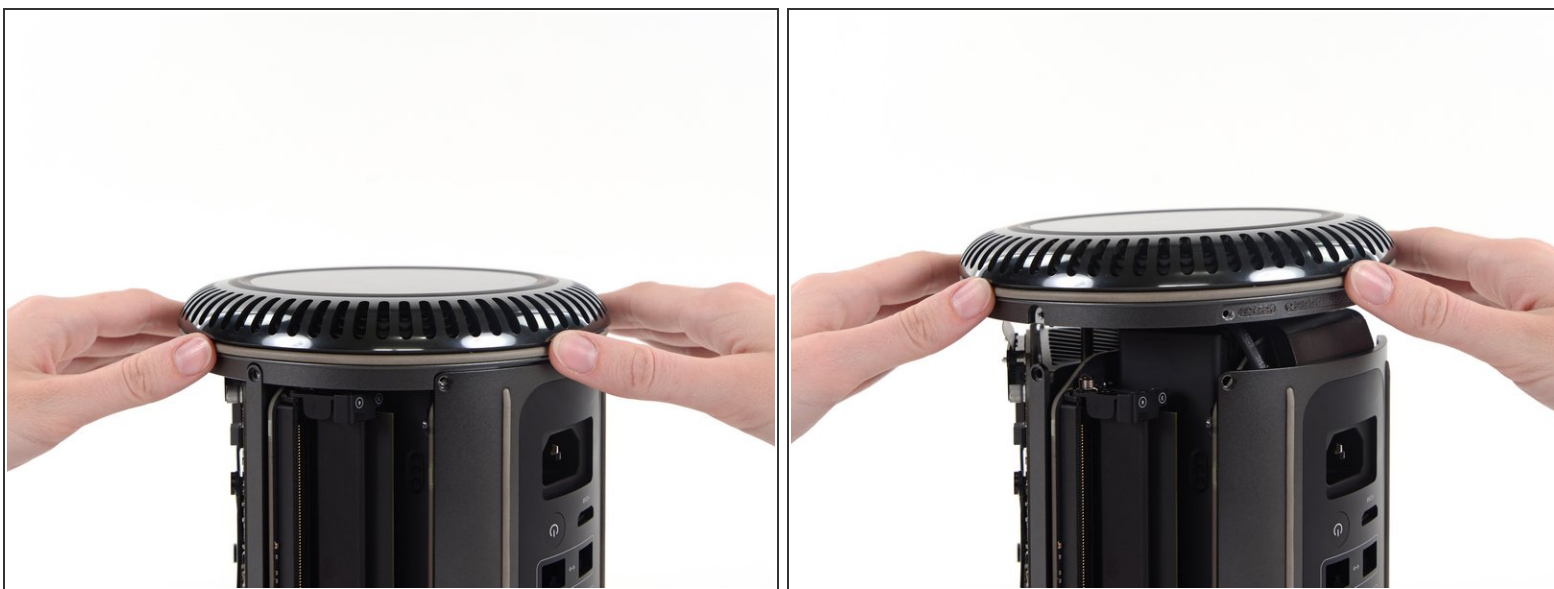
## Step 9 — Lower Case



 Flip the Mac Pro upside down, 180 degrees.

- Remove five 5.1 mm T10 Torx screws from the outer perimeter of the lower case.

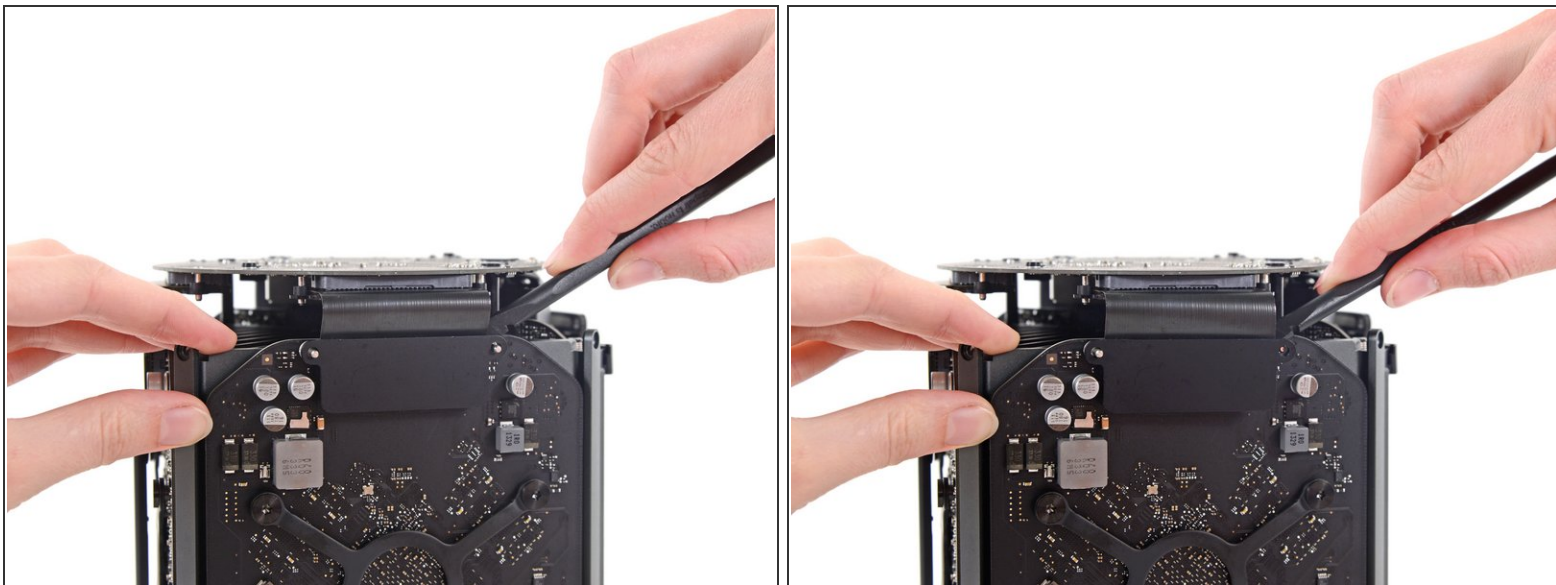
## Step 10



- Carefully lift the lower case up and remove it from the Mac Pro.

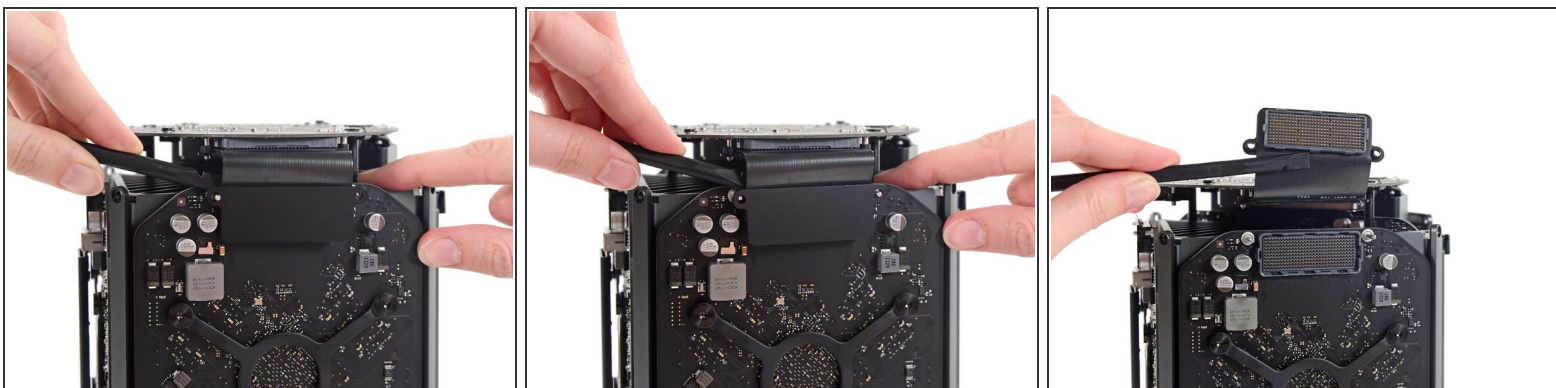


## Step 11 — Graphics Card



- Use the flat end of a spudger and a twisting motion to gently separate one side of the graphics card data connection.

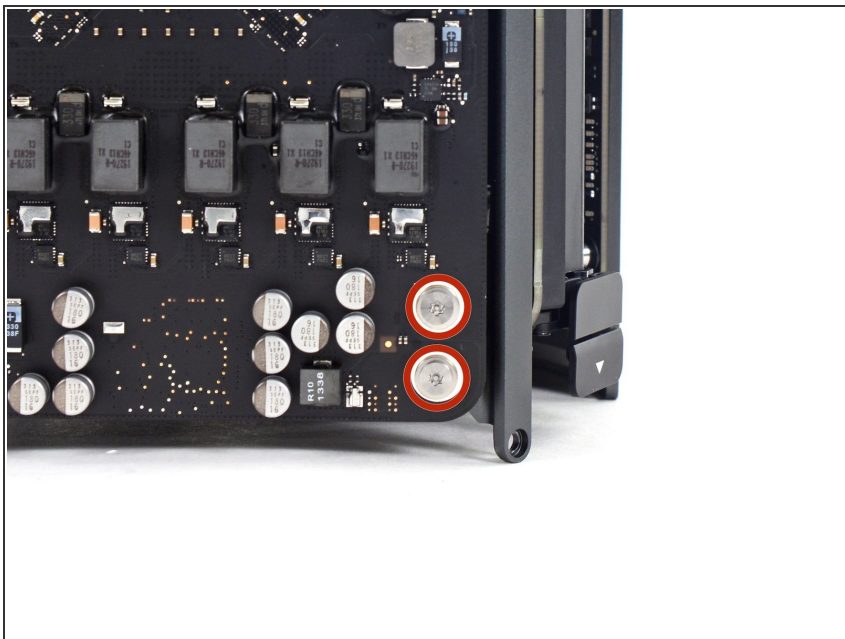
## Step 12



- Gently separate the other side as well.
- Flip the connector up and out of the way of the graphics card.



## Step 13



- Remove the two 6.6 mm T8 Torx Security screws securing the GPU to the Mac Pro.

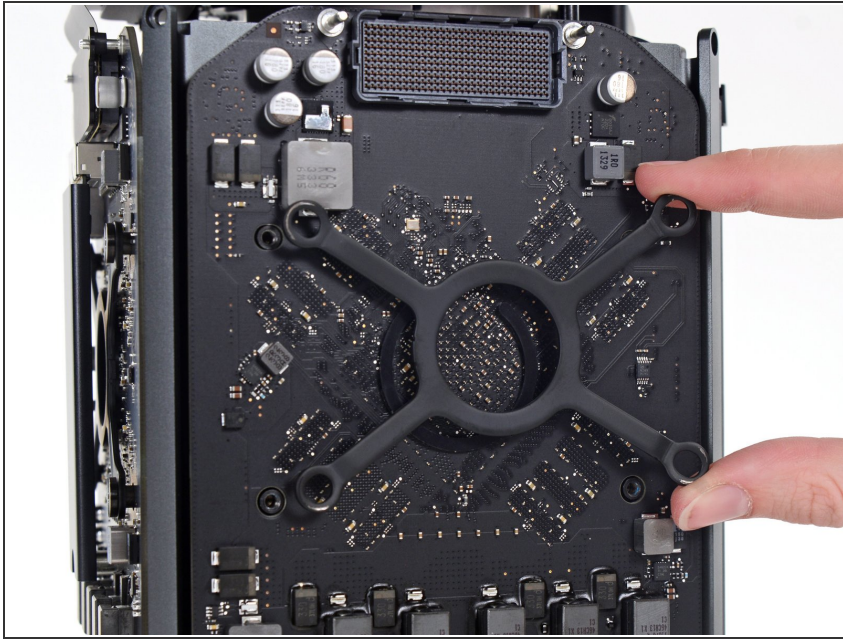
⚠ These screws fit into power cables behind the GPU. Be careful not to over-tighten and twist the cables.

## Step 14



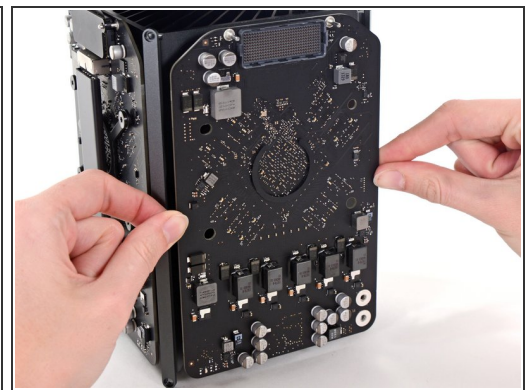
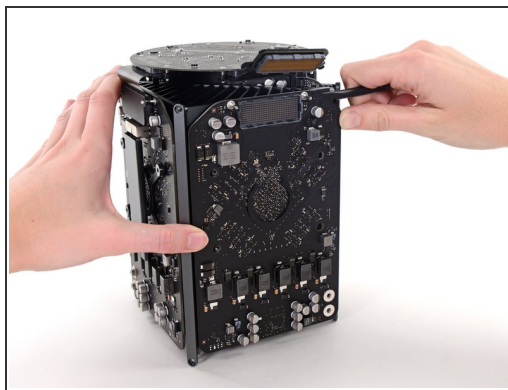
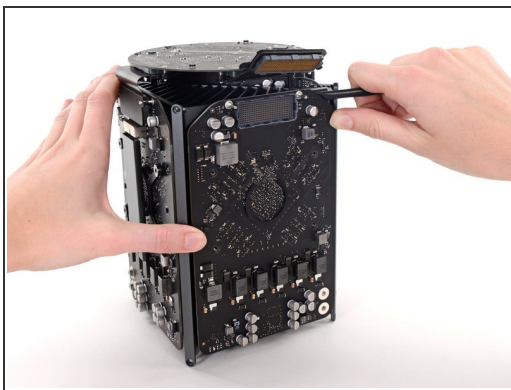
- Remove the four 8.4 mm T10 screws from the GPU heat sink bracket.

## Step 15



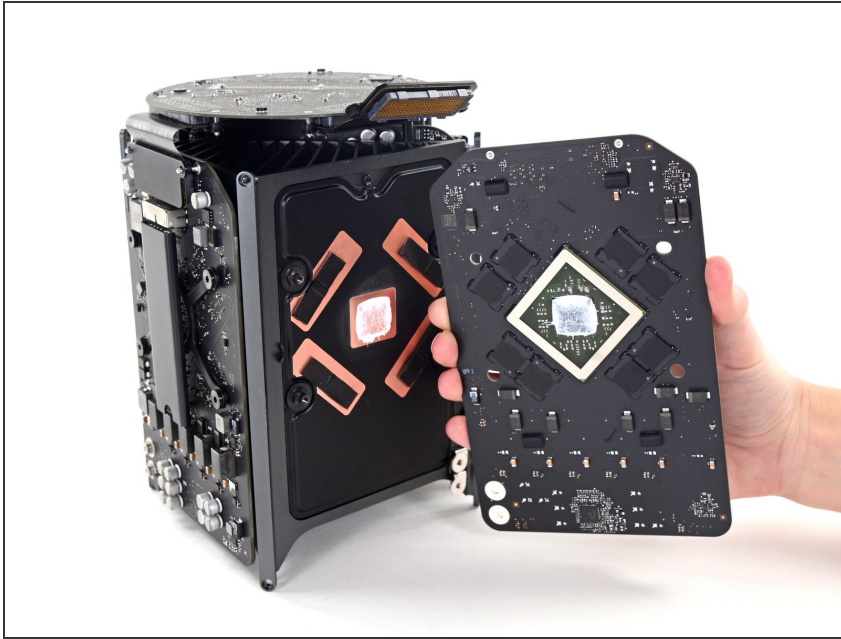
- Remove the GPU heat sink bracket.

## Step 16



- ☑ The graphics card is now held onto the central heat sink by thermal compound.
- ⓘ You may need to pry very gently with a spudger to separate the card from the heat sink.
- Remove the graphics card from the heat sink.

## Step 17



- ✦ During reassembly, be sure to clean off and replace the thermal compound. Use our [Applying Thermal Paste guide](#) if you require assistance.
- ⓘ Repeat this procedure if you wish to remove the secondary graphics card.

To reassemble your device, follow these instructions in reverse order.