

Thank you for purchasing the Cooling Fan Mod Kit for your Linksys router. First we will show you how to install the cooling fan for your router. Next we will teach you how to setup the DD-WRT firmware which will turn your \$60 router into a powerful, highly configurable \$600 router. Finally we will provide you with a tool that will help test the performance of your newly modified router.



WRT400N Cooling Fan Installation Instructions:

1. Soldering required
2. Open the unit. You can use a torque wrench (size T10) or the sharp end of a kitchen knife will work (we don't recommend this).

The top and bottom of the router separate nicely with some help from you.

Wedge them apart with a kitchen knife or an object that is not sharp.

Begin prying the unit open just down from the vent holes.

The case is on tight, so pry open around the edges a little at a time.

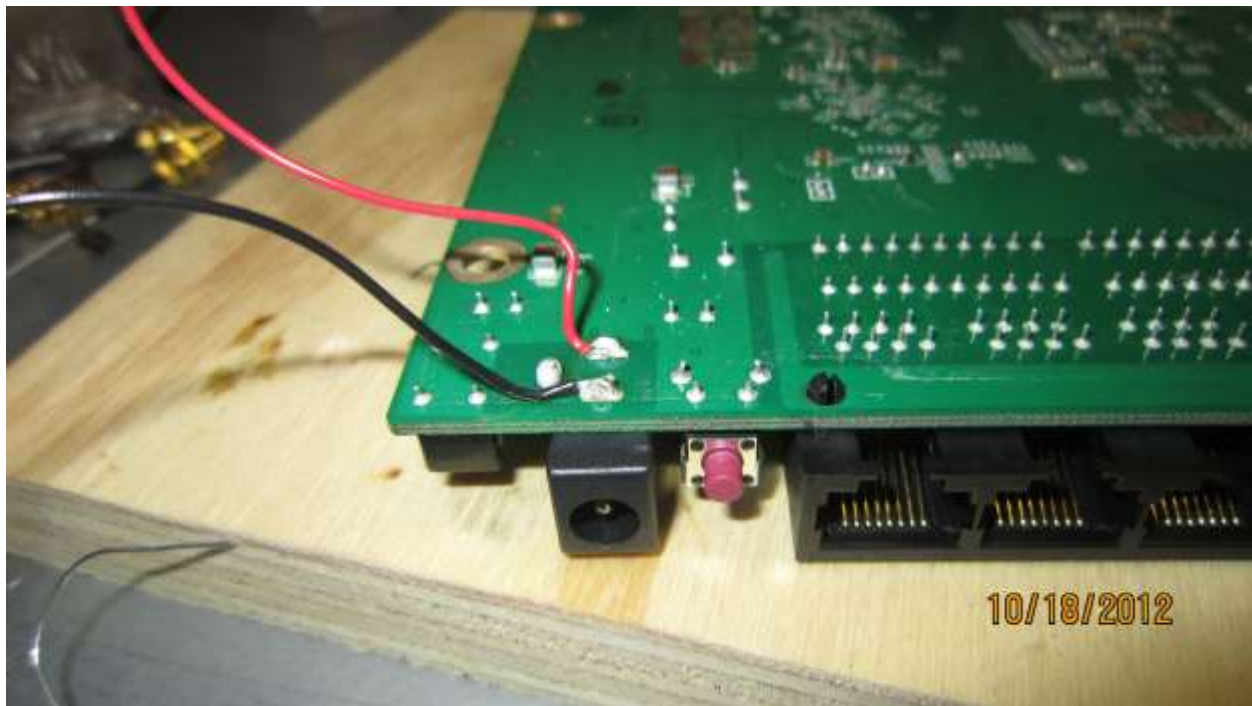
Be patient; she'll eventually pop open for you.

If you brake couple of clips don't worry about it, happens to the best of us.

3. Remove the UFL antenna connectors.

4. Now remove the U.FI connectors on the left side of the board and take the board out carefully. Note the left side is still connected.

5. You will need to solder 2 wires, see images bellow. Note where Black and Red wires must go.



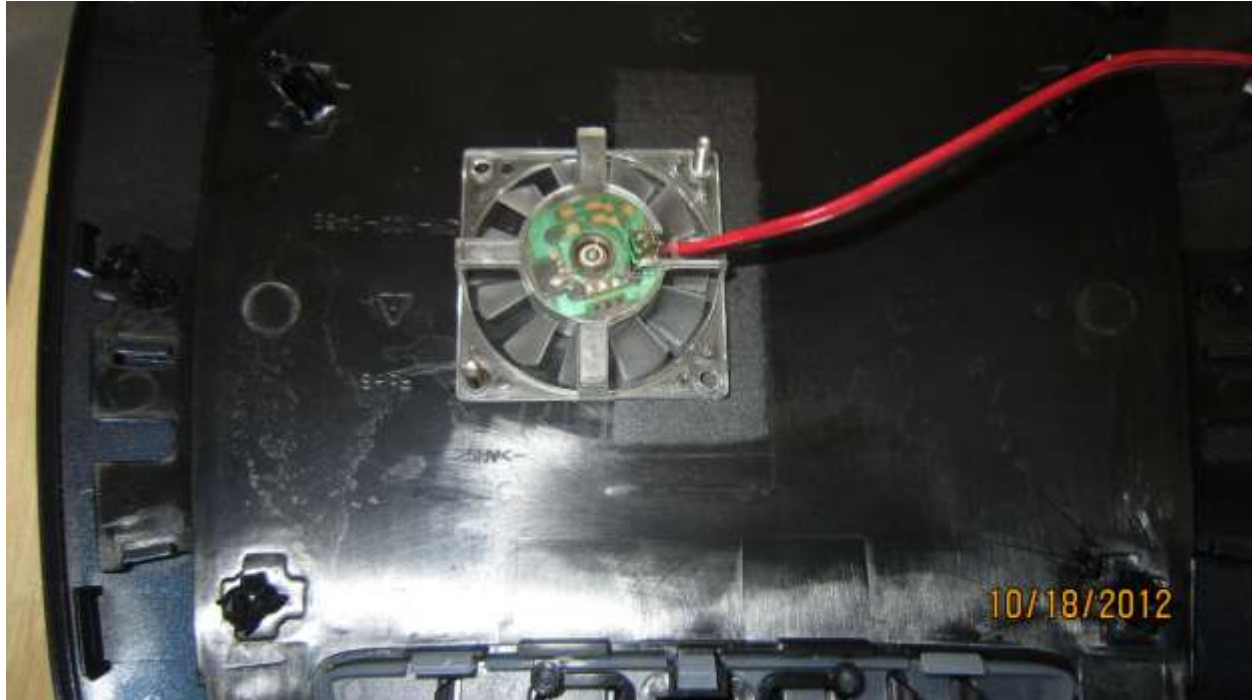
Tuck the wires in and flip them to the other side of the board. See image bellow.



Next step is drilling holes for the fan mount screws. Use 7/64 inch drill bit (or closes you can get to that)
Or you can do 5/16 holes like this: (e3000 shown)



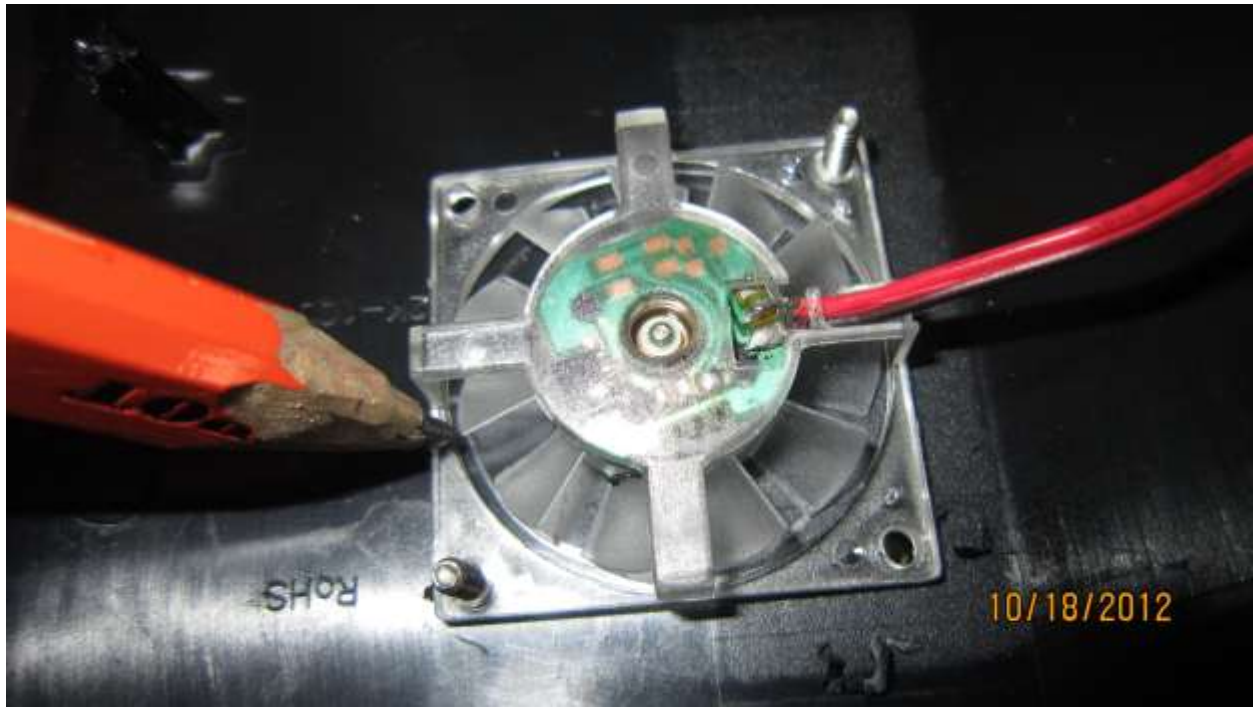
Note the distance for the first hole. Measure 3.75 inches from the.
The fan mounts right in the middle of the case to avoid interference with any internal components and to be on top of CPU. See images below.



As you can see the hole should be on the side of the Cisco logo. Once you drill the first hole place the fan and secure it with one screw and level it. Now drill the 2nd hole through the fan pre drilled hole. Now place the 2nd screw and go ahead and drill the other 2 holes.



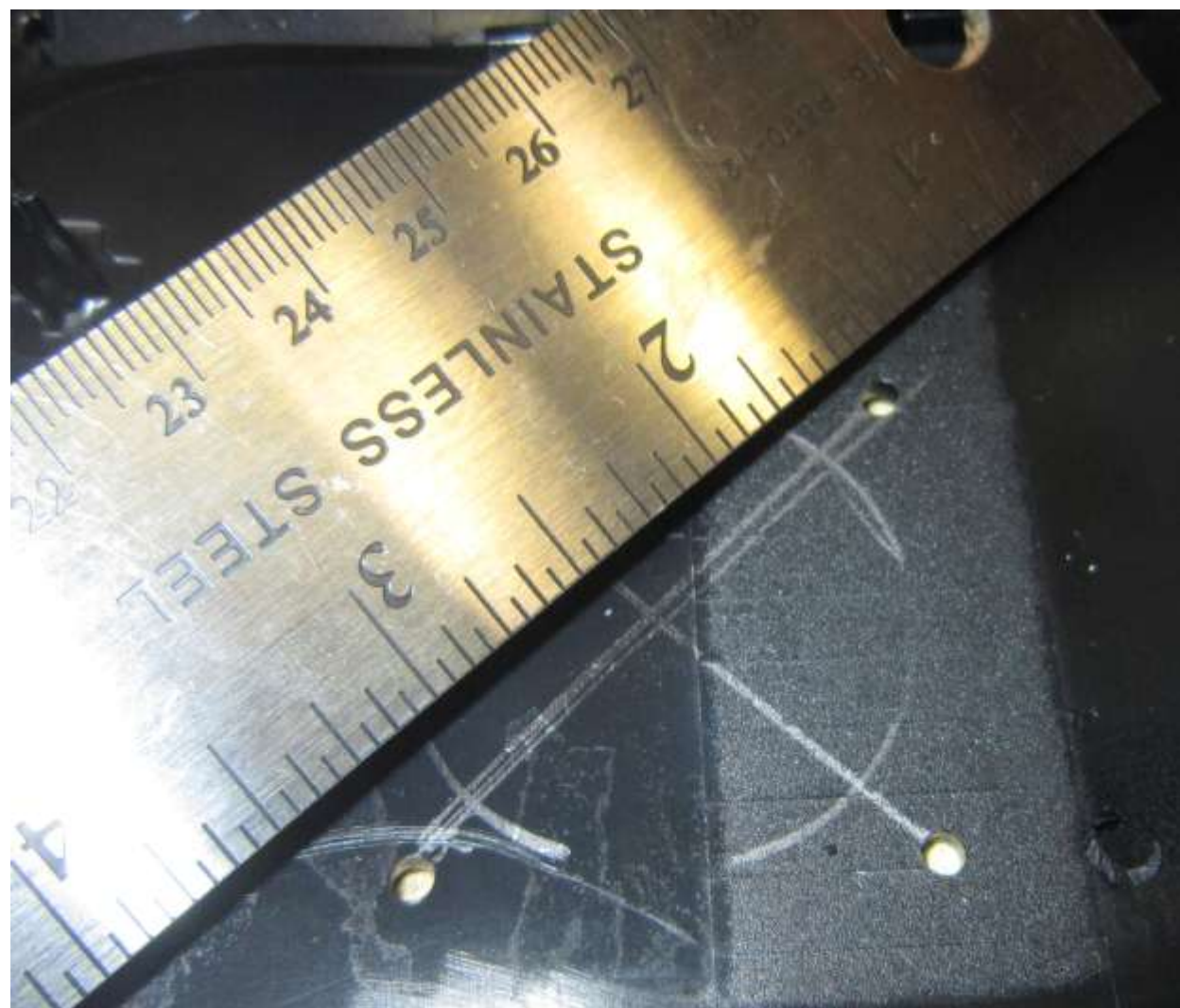
Once 4 holes are drilled you can mark the fan location with a pencil.



Remove the screws and draw the target using a sharp pencil or a pick. Make sure you do it from the inside of the case.

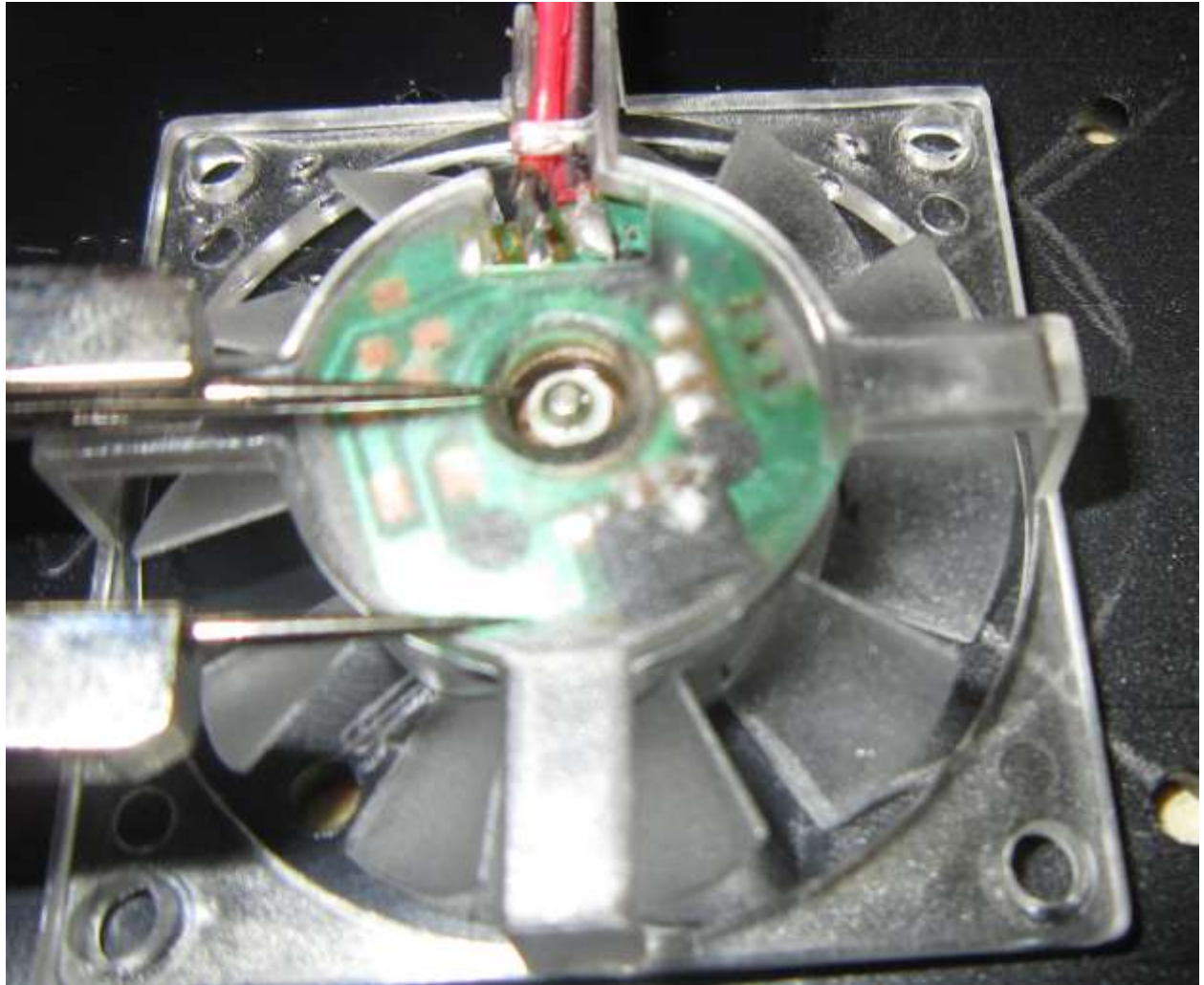


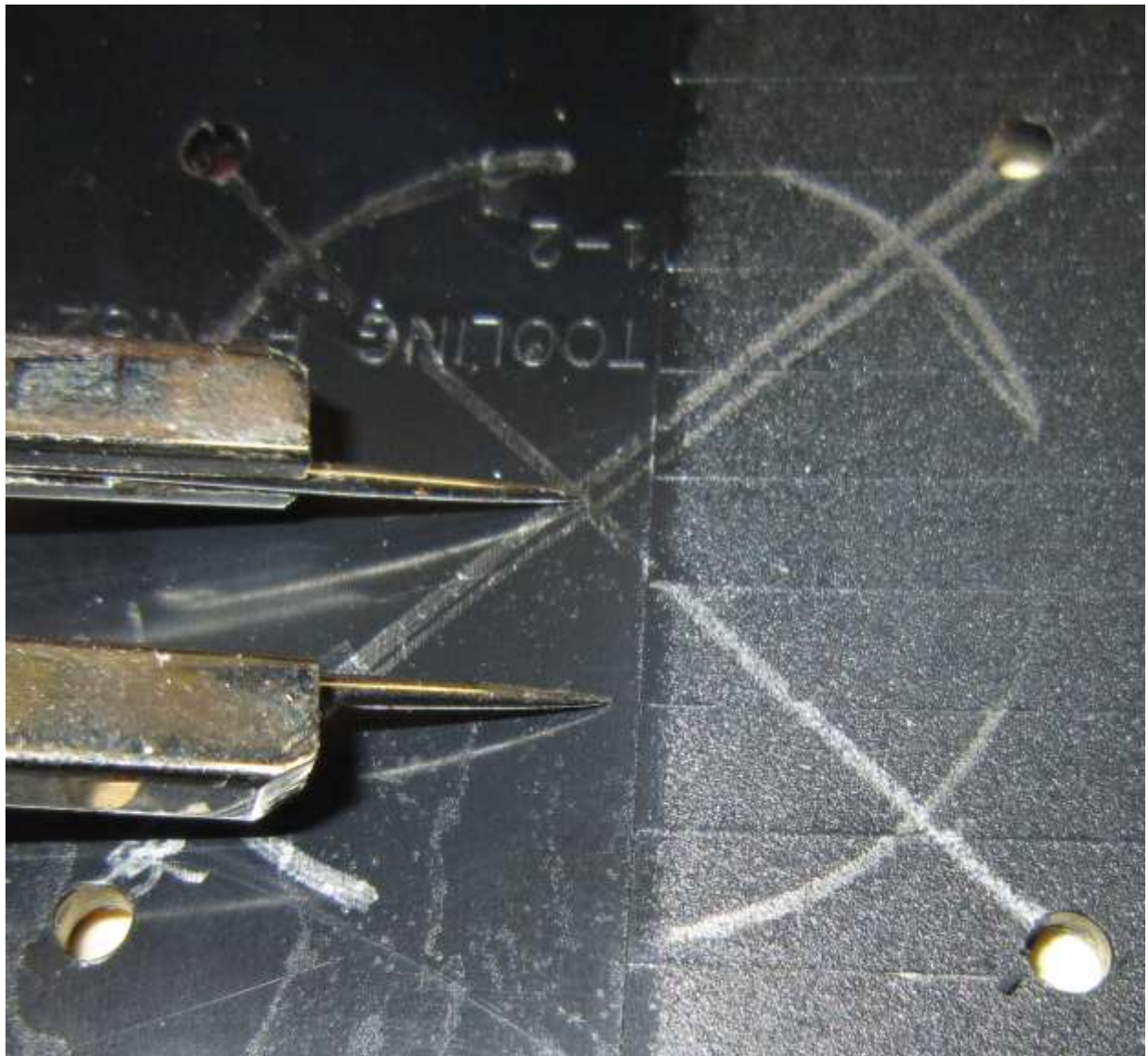
Use the ruler to draw straight lines from each hole.





Measure the distance between the center of the fan to the opening.





Now draw the internal circle.



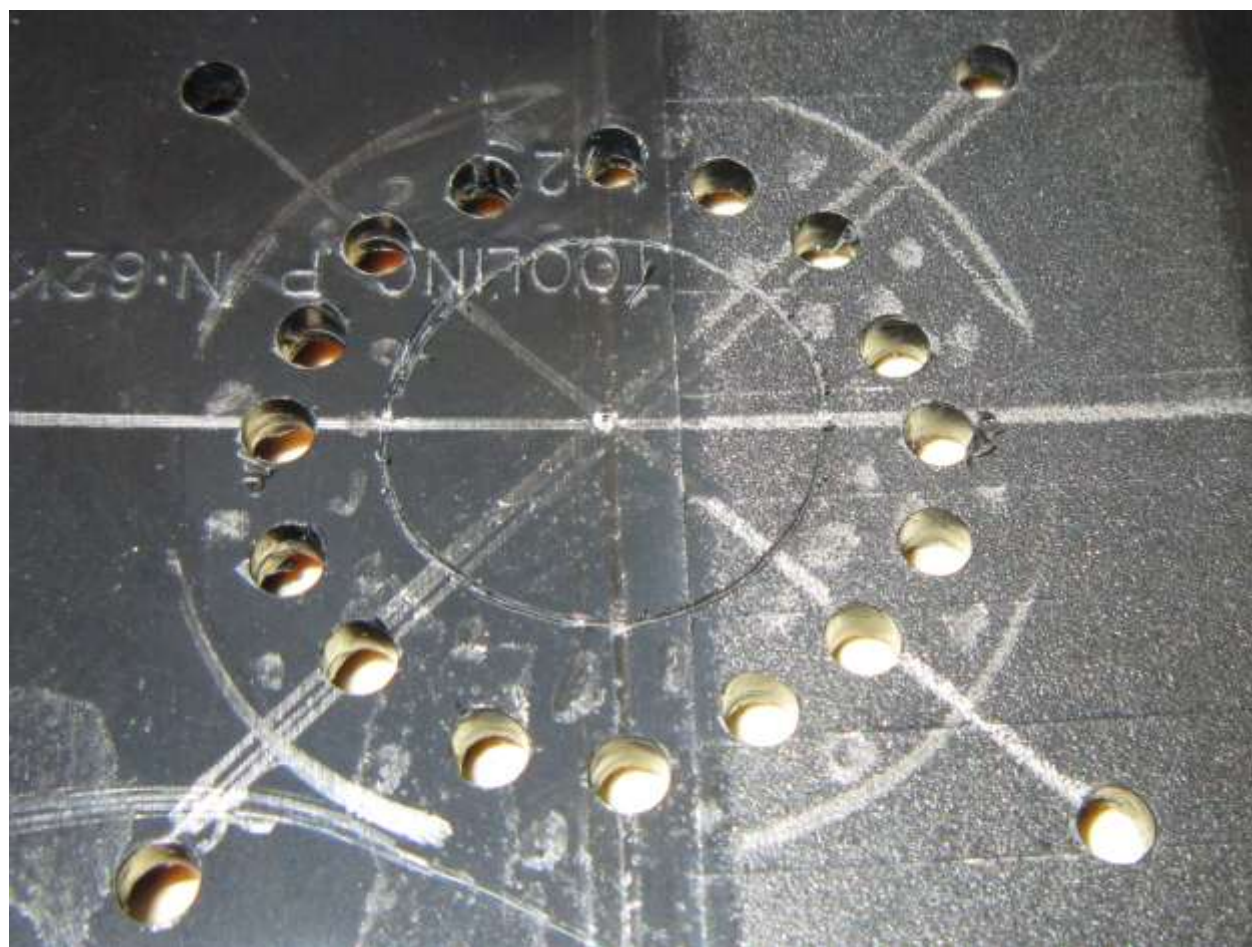
Now draw the straight lines through the circle



Now mark the drill holes. Group them as you wish.



Drill the first set of holes right in the middle.





Go ahead and drill the rest of the holes now.



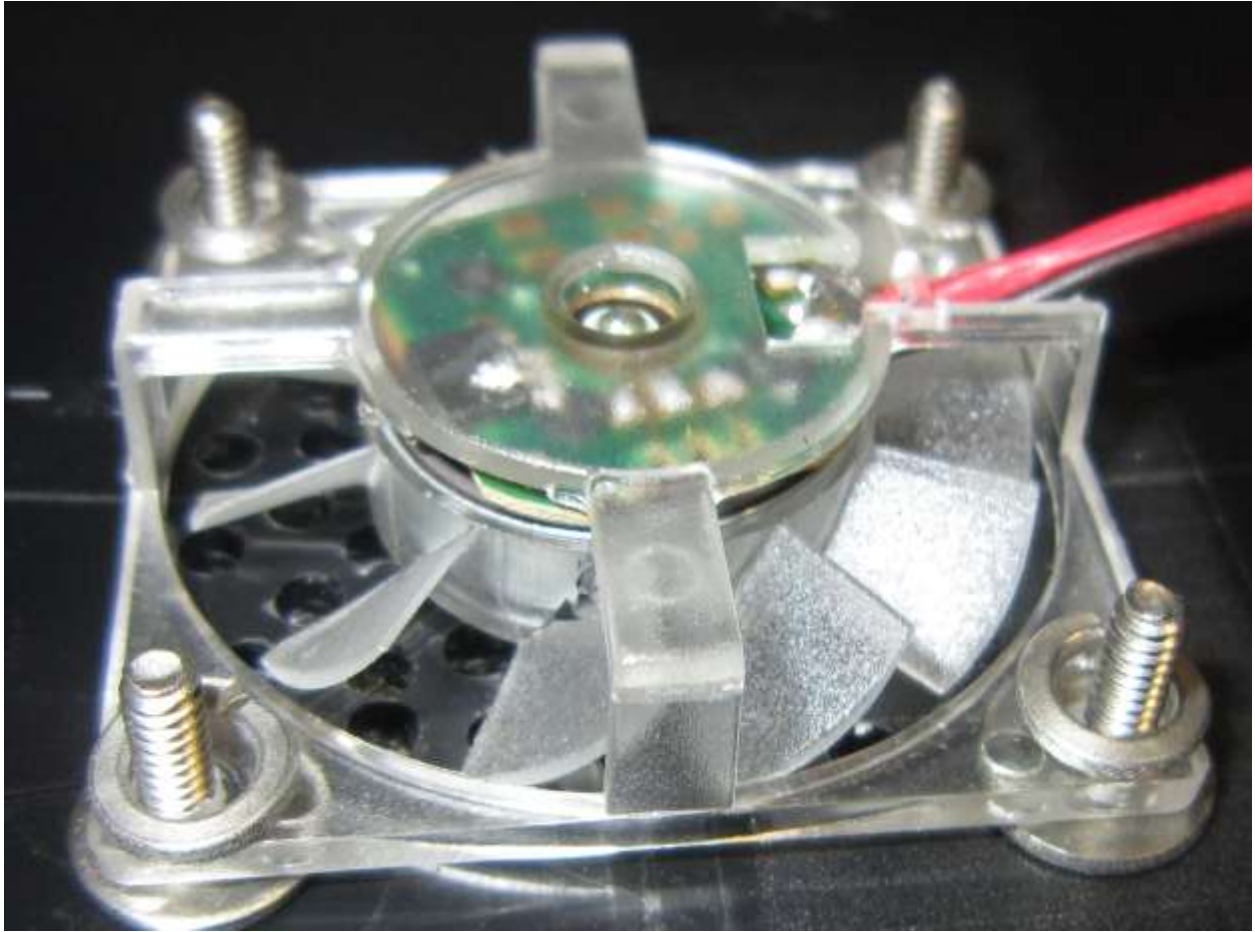




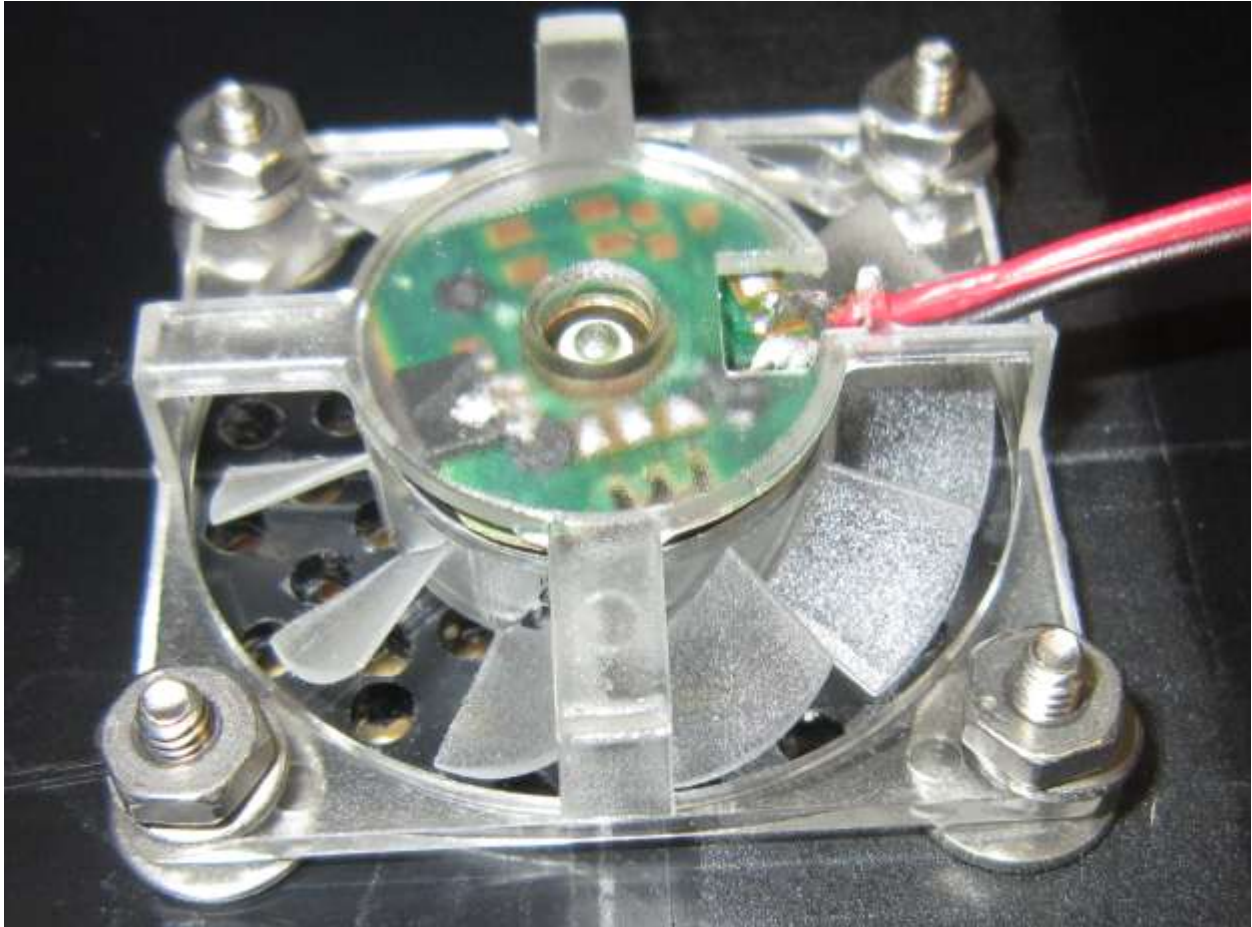
Now time to mount the fan.

Place all screws then washers then fan then lock washers and finally the nut.

Make sure none of the fan wires get on the way of the fan as it will make a dragging sound.



Make sure to follow the sequence as the fan won't have clearance.



Tighten the screws from the top using flat screw driver. The lock washers will hold the nut in place.

Make sure not to over tighten as it might damage the fan.

You are done now.

Before putting the fan together turn the router on to make sure the fan is not making any dragging noise.

NOTE: When putting the case back together make sure none of the cables get pinched with screws or case. You can secure them in place by using clear tape.

Enjoy

For optimal performance we recommend replacing the Linksys firmware with DD-WRT. This is a free third party firmware that will help turn your \$60 router into a powerful, highly configurable \$600 router.

This is for advance users only.

<http://www.metageek.net/products/inssider/> (free download)

The screenshot displays the Wireshark network protocol analyzer interface. The top section shows a list of captured packets. The selected packet (No. 1) is an HTTP GET request from 192.168.1.100 to 192.168.1.1. The packet details pane on the right shows the structure of the selected packet, including Ethernet II, Internet Protocol Version 4, and Hypertext Transfer Protocol.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
2	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
3	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
4	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
5	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
6	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
7	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
8	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
9	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
10	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
11	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
12	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
13	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
14	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
15	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
16	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
17	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
18	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
19	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
20	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
21	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
22	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
23	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
24	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
25	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
26	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
27	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
28	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
29	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
30	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
31	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
32	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
33	0.000000	192.168.1.100	192.168.1.1	TCP	60	80 → 65535 [RST] Seq=1234567890 Win=0 Len=0
34	0.000000	192.168.1.100	192.168.1.1	HTTP	100	GET / HTTP/1.1
35	0.000000	192.168.1.1	192.168.1.100	TCP	60	65535 → 80 [RST] Seq=1234567890 Win=0 Len=0
36	0.000000	192.168.1.100				