### Troubleshoot Hardware Problems

**Step 1: Start and log in to the computer.**

Did the computer boot successfully?

The computer did boot correctly, but we see a message that the hard drive was connecting in another SATA data port.

Did all devices operate properly?

Yes all devices operate proportly.

## Step 2: Troubleshoot the hardware problem.

What problem did you find?

Connecting cables, memories was easy, but when we try to assemble or rebuild all parts of computer it was like a Lego. However, we assemble on time.

What steps did you take to determine the problem?

We asked to another classmate and he was able to explain us.

What is causing the problem?

We didn’t know where the plastic piece was located in the computer’s case.

List the steps taken to fix the problem.

**Research a Hardware Upgrade**

## Step 1: Research memory options.

Shop around, and in the table below list the brand, model number, features, and cost for two different 8 GB modules of DDR3.

| **Brand and Model Number** | **Features** | **Cost** |
| --- | --- | --- |
| TIMETEC ‎LYSB00IV19I0S-ELECTRNCS | COMPATIBLE WITH MANY BRANDS SUCH AS DELL, LENOVO, ASUS, BIOSTAR.  ACCELERATE PERFORMANCE, INCREASE MULTITASKING | 13.99+TAX |
| PATRIOT ‎PV316G160C0K | high performance heat shield  , Lightweight, compatibility with Intel and AMD processors. | 20.50+TAX |

Based on your research, which RAM would you select?

I would like to choose the Patriot memery because I can see compatibility, heatsink protection, and also the price is not a big different with Timelec memory.

**Step 2: Research hard disk drive options.**

Shop around, and in the table below list the brand, model number, features, and cost for a 3 TB 7200 rpm SATA 3 hard disk drive and a 500GB or 1TB solid state drive (SSD).

| Brand and Model Number | Features | Cost |
| --- | --- | --- |
| Seagate 3TB ‎ST2000NM0033 | 5V, 128 MB buffer side, 3yrs Warranty | !36.48+TAX |
| Western Digital 1TB ‎WDS100T3B0A | 1V, 560 MB buffer side, cloud storage offer, 5yrs Warranty | 108.79+TAX |

Based on your research, which hard disk drive would you select?

I would rather prefer Western Digital 1TB ‎WDS100T3B0A for some reason:

1. Technology change everyday.
2. Power consume would be less when I use for a long time the computer.
3. They offer me could storage, so I can accesss to my files everywhere.

### Step 3: Research video adapter card options.

Shop around, and in the table below list the brand, model number, features, and cost for two different PCIe video adapter cards with at least 1 GB of RAM.

| Brand and Model Number | Features | Cost |
| --- | --- | --- |
| GT 4GB DDR3 ‎GeForce GT 730 | 30 watts, 1334 MHz (memory Clock speed), 600 MHz (GPU clock speed), Video outputs: VGA, HDMI, DVI | 89.99+TAX |
| Maxsun 4GB DDR5 RX 550 | 30 watts, 6000 MHz (memory Clock speed), 1183 MHz (GPU clock speed), Video outputs: VGA, HDMI, Display port, Compatible with AMD | 149.99+TAX |

Based on your research, which video adapter card would you select?

Based on my reseach I would like to have the Maxsun 4GB DDR5 RX 550 because this card can help better with the performance of the computer even if you are a normal, gamer, or a graphic design guy.