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| Wek 07 Project |
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| Motherboard Replacement |

**CIST 0161: The Technology of Computing**

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Wek 07 Project

Motherboard Replacement

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Wek 07 Project

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# Introduction

**DELETE:** Provide a one to two sentence description of the lab here.

# Procedure

**Delete the following:**

Describe the procedures followed for this lab. Images may be used and referenced as Figure 1, Figure 2, etc.

Example:

  
**Figure 1: Common Computer Peripherals**

In Figure 1, the keyboard, mouse, and monitor can be seen.

# Results

1. What are the purpose of standoffs?
   1. The purpose of standoffs is to create spacers that go between a motherboard and computer case to ensure that there is no contact between the circuitry of a motherboard and the case.
2. What is POST?
   1. The POST process checks computer hardware, like RAM (random access memory), hard drive, CD-ROM drive, keyboard, etc.
3. Provide a link to the motherboard manual for your motherboard.
   1. https://download.asrock.com/Manual/FM2A88M-HD%2b.pdf
4. What is the make/model of your motherboard?
   1. ASRock - FM2A88M-HD+
5. What is the socket type of your processor/motherboard?
   1. FM2+
6. What type of RAM does this motherboard utilize?
   1. Dual Channel DDR3 Memory AKA DDR3 DIMM
7. Does this processor utilize pins or lands?
   1. Pins
8. What are the components of a stock cooling system?
   1. Thermal Compounds, Heat sink, and fan
9. Identify the maximum amount of RAM supported by your motherboard.
   1. 32G
10. Does your motherboard support dual channeling or greater?  If so, what kind of channeling.
    1. Dual Channeling, DDR3 memory technology
11. Utilizing a site like newegg.com, locate compatible RAM in size and quantity to optimally fill this motherboard.  Post a link here and indicate quantity.
    1. <https://www.newegg.com/crucial-32gb-240-pin-ddr3-sdram/p/N82E16820148803?Description=32g%20ddr3&cm_re=32g_ddr3-_-20-148-803-_-Product>
    2. 16Gx2
12. Locate a compatible replacement processor on a site like newegg.com and post the link here.
    1. https://www.newegg.com/amd-athlon-x4-860k/p/N82E16819113410?Description=FM2+%2095W%20cpu&cm\_re=FM2+\_95W%20cpu-\_-19-113-410-\_-Product&quicklink=true
13. What is the maximum speed of this processor?
    1. 3.5ghz
14. How many cores does it have?
    1. 2
15. Does it support hyperthreading?
    1. No
16. Locate a compatible fan-based aftermarket cooler on a site like newegg.com and post the link here.
    1. https://www.newegg.com/rosewill-rocc-16003/p/N82E16835200114?Description=FM2+%20cooling%20fan&cm\_re=FM2+\_cooling%20fan-\_-35-200-114-\_-Product
17. Locate a compatible liquid cooler on a site like newegg.com and post the link here.
    1. https://www.newegg.com/p/1YF-01PK-00001?Item=9SIB601J6G9093&Description=fm2+%20cpu%20cooler&cm\_re=fm2+\_cpu%20cooler-\_-9SIB601J6G9093-\_-Product&cm\_sp=SP-\_-1392579-\_-0-\_-2-\_-9SIB601J6G9093-\_-fm2+%20cpu%20cooler-\_-cooler|cpu-\_-1
18. Utilizing a site like newegg.com, find the substance that is applied between the processor and heatsink and post a link here.
    1. https://www.newegg.com/arctic-silver-as5-3-5g/p/N82E16835100007?Description=thermal%20compound&cm\_re=thermal\_compound-\_-35-100-007-\_-Product
19. Why is it important to ensure the fan is operational when done with the lab?
    1. So the CPU doesn’t over heat and shutdown.

# Conclusion

**DELETE:** Describe what you have learned from this lab.