The

qclug

Presents...

SteamOS and Steam In-Home Streaming

What is SteamOS?

SteamOS is a Debian based Linux distribution designed to be the primary operating system for Steam Machine game consoles.

SteamOS is mostly free but does include some non-free software such as NVIDIA graphics drivers which helps simplify the OS installation.

http://store.steampowered.com/steamos

What is a Steam Machine?

Steam Machine (previously known as Steam Box)
is a pre-built gaming PC manufactured and distributed
by various hardware vendors (Alienware, Zotac, ASUS, etc)

http://store.steampowered.com/livingroom/SteamMachines/

What is Steam In-Home Streaming?

Steam In-Home Streaming is a feature of the Steam Client that allows users to stream games installed on one computer to another, regardless of platform.

http://store.steampowered.com/streaming/

How to build a Steam Machine

- The Low end Steam Machine that I chose
    - Low end hardware (eg. Zotac, NUC, Micro PCs)
    - High end hardware (eg. Custom built, pre-built gaming PC)

Steam In-Home Streaming makes use of both hardware types to provide a best of both worlds experience.
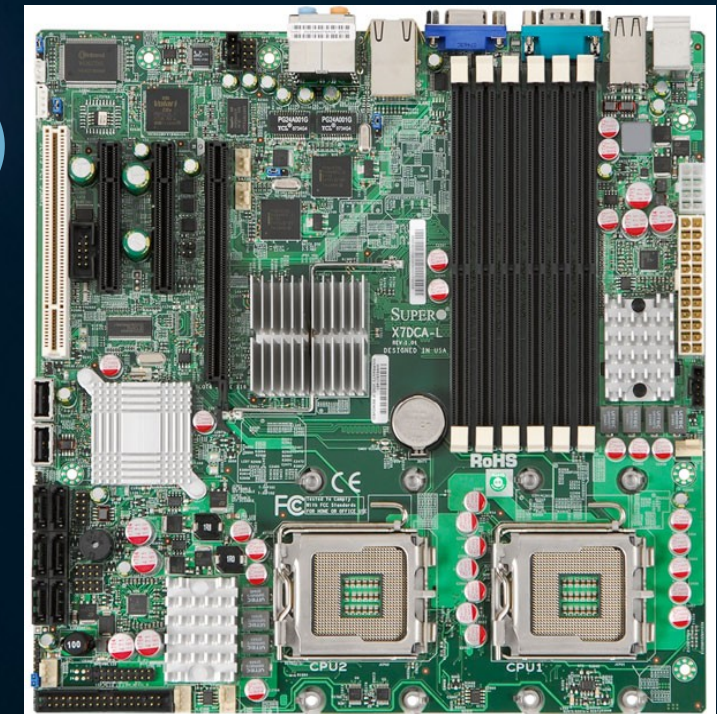
Low end hardware used (Streaming Front-end)

- Zotac ZBOX CI320 (Celeron N2930 1.83GHz CPU) (~$130)
- 8GB DDR3L PC3L-10600 (Low Voltage SODIMM) (~$45)
- 128GB 2.5" SSD (Refurbished) (~$50)

Total~$225

High end hardware used (Streaming Back-end)

- Supermicro X7DCA-L Dual Socket LGA771 Server/Workstation MicroATX Motherboard (~$45)
- 2 x Intel Xeon E5450 12MB 1333 MHz FSB (~$45)
- 2 x Intel OEM Heatsinks/Fans (~$30)
- NVIDIA GTX 550 TI 1GB GDDR5 (~$60)
- 8GB DDR2 PC5300 ECC RAM (~$40)
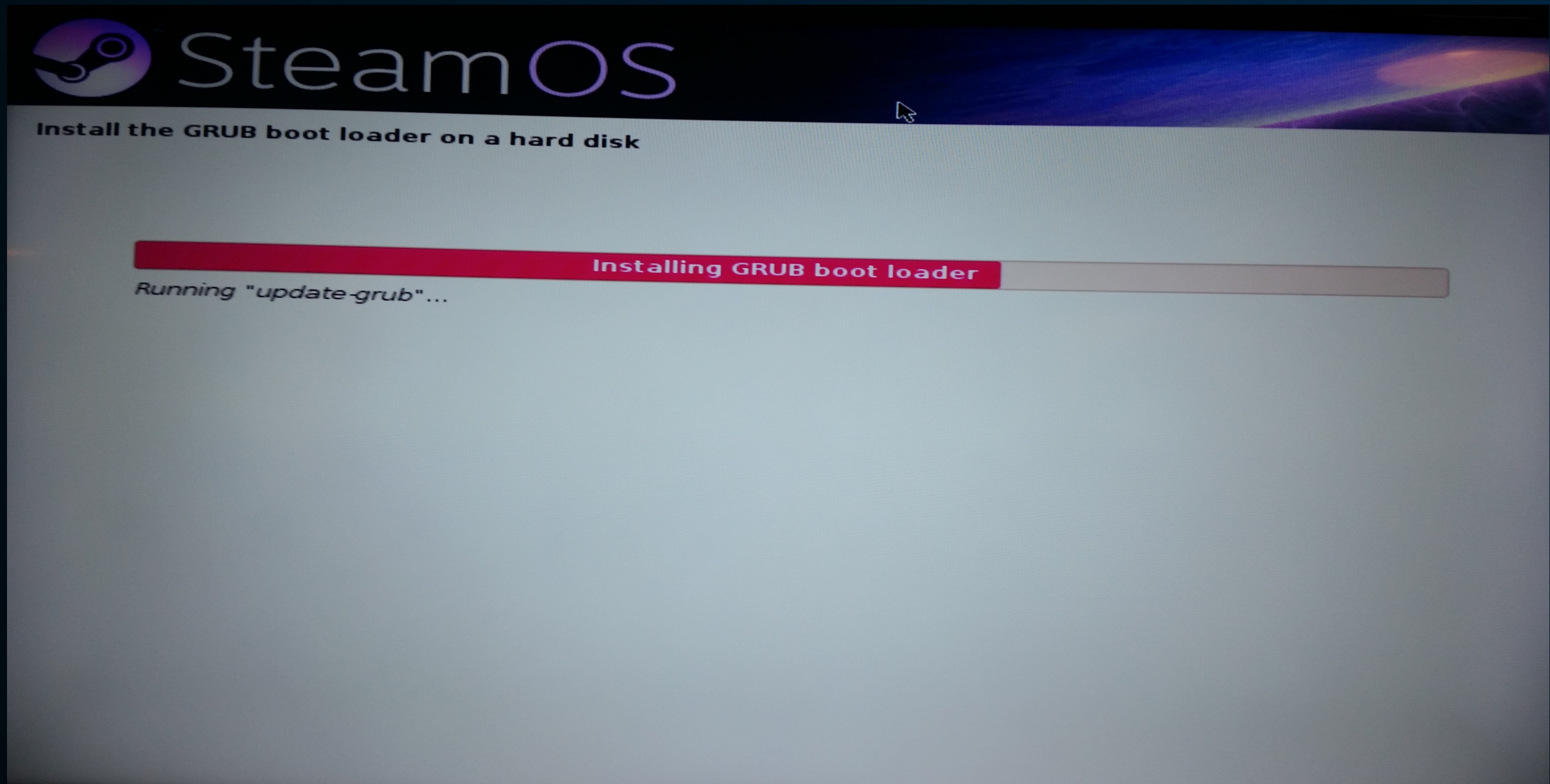- 1TB SATA Hard Drive (~$50)
- 500 Watt Power Supply (~$50)

Total~$320

In comparison to modern gaming hardware:

- Game worthy motherboard (eVGA, ASUS, etc.) (~$200)
- Intel Core i7 Haswell (4th Gen) or Broadwell (5th Gen) (~$350)
- 16GB DDR4 PC4-19200 RAM (~$100)
- NVIDIA GTX 960 4GB GDDR5 (~$230)
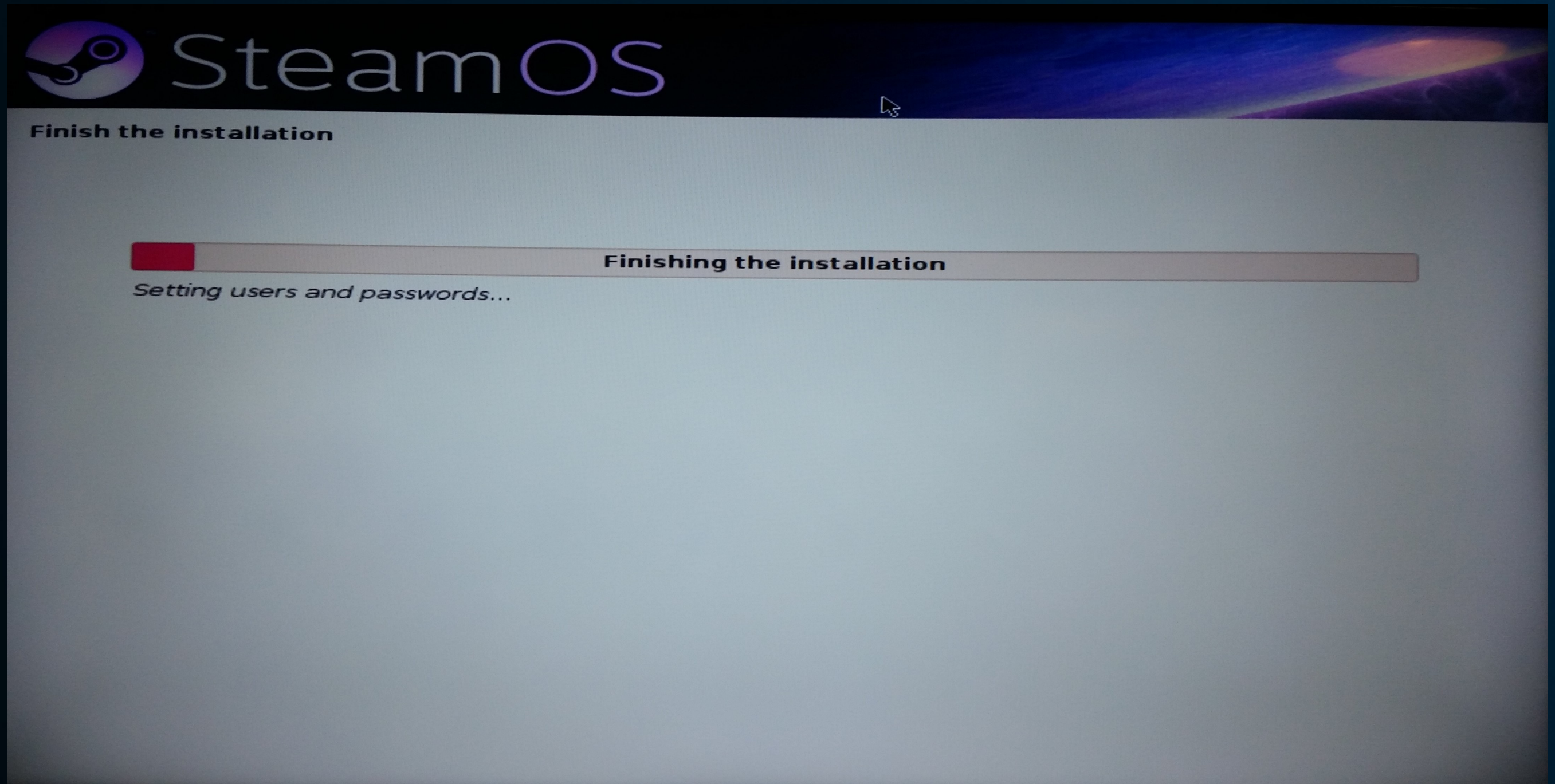- 1TB SATA Hard Drive (~$50)
- 500 Watt Power Supply ($50)

Total~$980

NZXT Phantom 410 Series
CA-PH410-R1 Red Steel

SteamOS Installation

SteamOS Installation

SteamOS Installation

SteamOS Installation

Welcome to Steam

What language should we use?

Čeština (Czech)

Dansk (Danish)

Nederlands (Dutch)

Suomi (Finnish)

Français (French)

Deutsch (German)

Ελληνικά (Greek)

Magyar (Hungarian)

SELECT

SteamOS Installation

Almost done...

You're up-to-date and ready to go. Your Steam Machine setup is now complete.
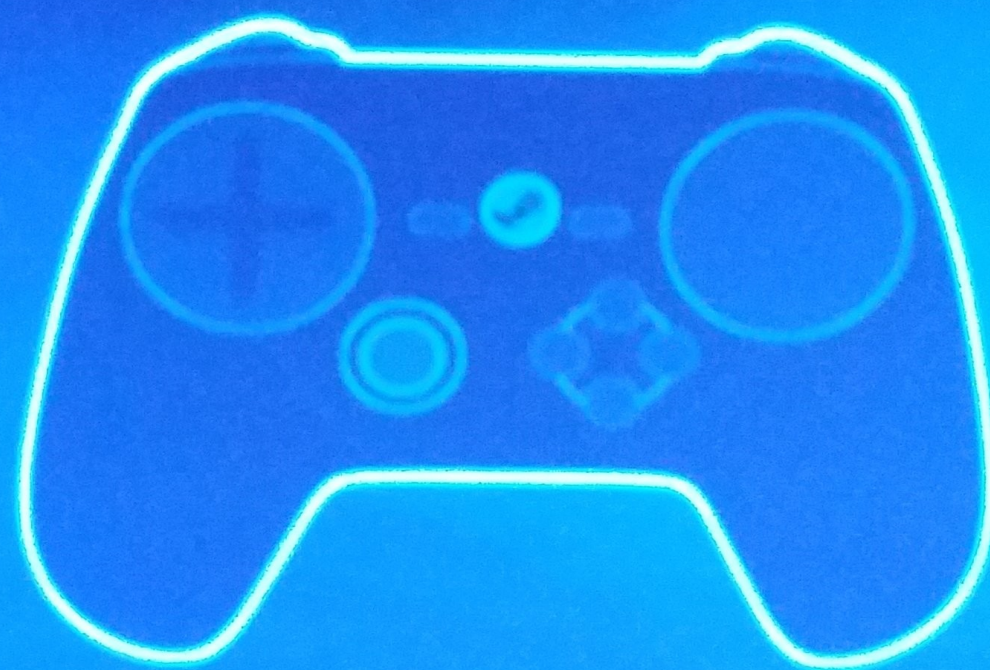
SteamOS Installation

SteamOS Installation

SteamOS Installation

Notes

Many games for Steam simply are not compatible with Linux and must run from either a Windows PC or a Mac.

Steam In-Home streaming attempts to bridge this gap by enabling users to run Windows games on their Steam Machines.

Notes

Reminder: SteamOS is still in Beta!

Steam In-Home Streaming works best with a "wired" Ethernet connection, preferably 1Gbps

The default interface for SteamOS is called Big Picture Mode but it seems that Big Picture Mode causes performance issues for certain games and may cause games to have low frame rate…

Notes

To make audio default to HDMI interface on the Zotac ZBOX I had to do the following:

Force HDMI output to default, 5.1:

echo "set-card-profile 0 output:hdmi-surround" >> /etc/pulse/system.pa

Force HDMI output to default, stereo:

echo "set-card-profile 0 output:hdmi-stereo" >> /etc/pulse/system.pa

To force the "steam" user to login to gnome by default you can do this:

vi /var/lib/AccountsService/users/steam

Change the default session from "steamos" to "gnome"

Thanks.