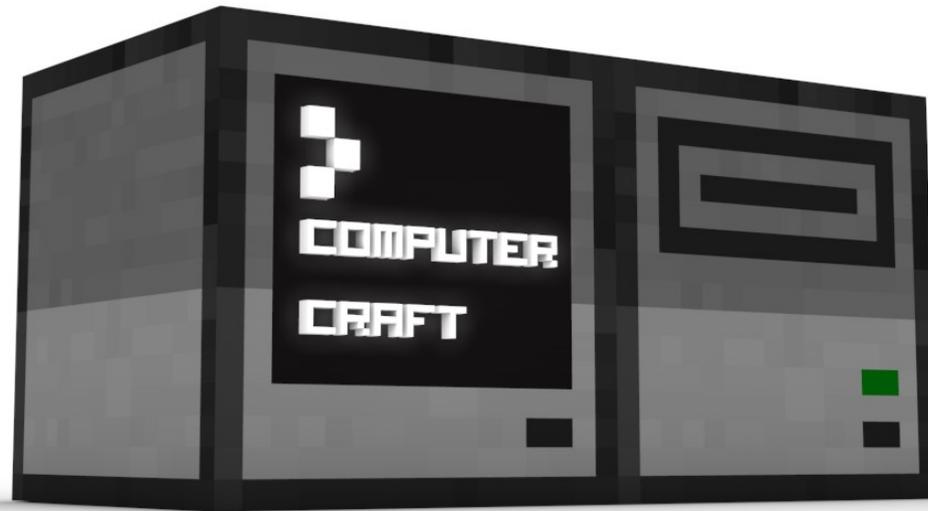


# Crafting a Computer in Minecraft



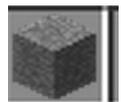
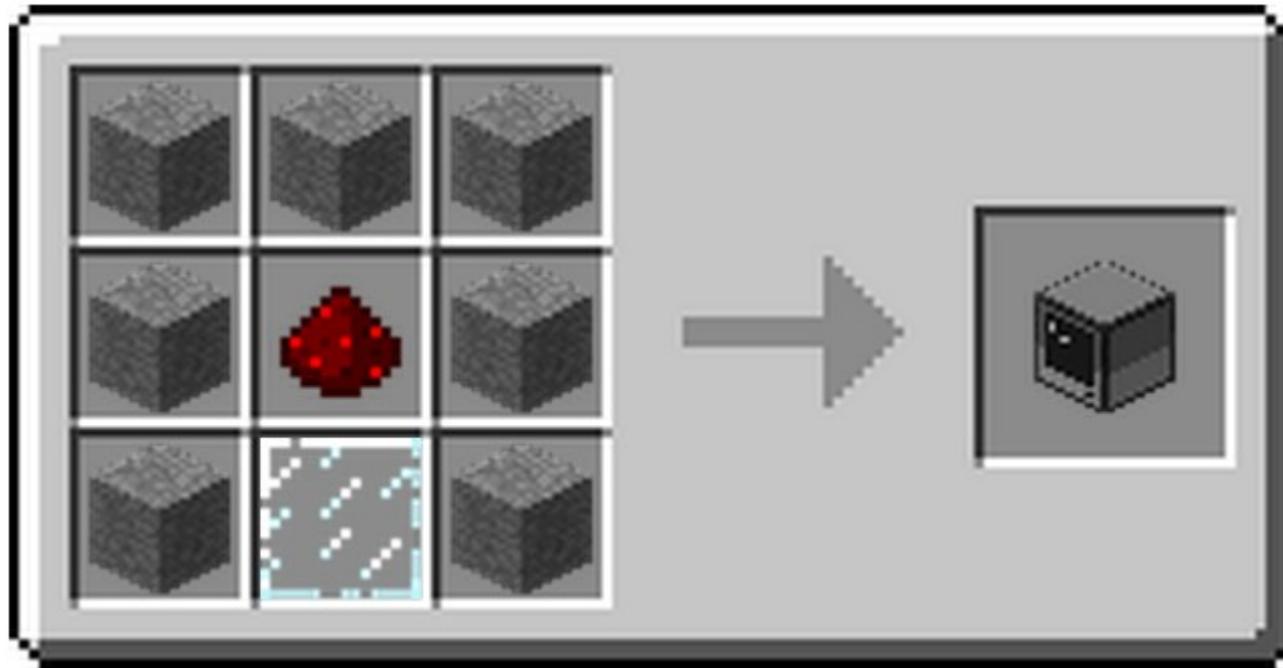
# Possible Challenges

- Beginner: Best display on monitor
- Intermediate: Best printer program
- Advanced: Best turtle program
- All Around: Best thing using ComputerCraft

# Parts of a Computer

- CPU – Central Processing Unit
- RAM – Random Access Memory
- Hard Drive – Stores Data
- Floppy Disk – Stores Data off computer (like a USB stick)
- Monitor – Visual output interface
- Motherboard – Connects computer components to make up the computer

# Computer Crafting Recipe



Stone

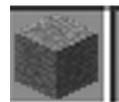
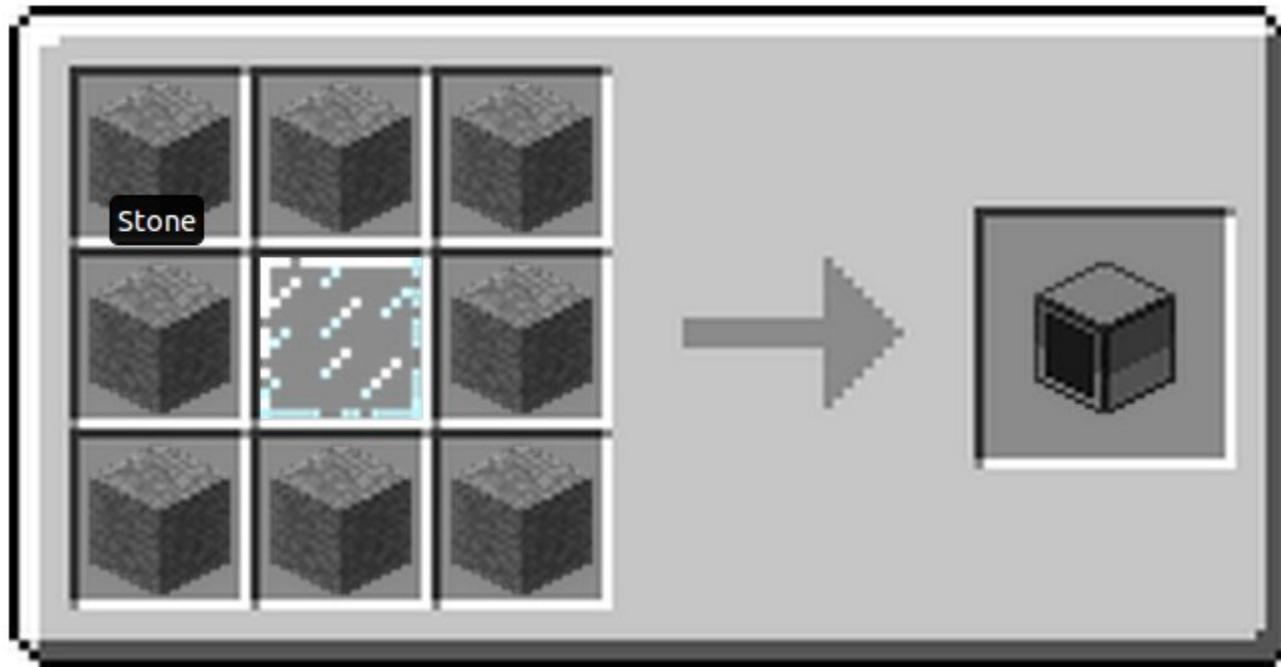


Glass Pane



Redstone

# Monitor Crafting Recipe

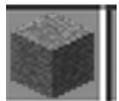
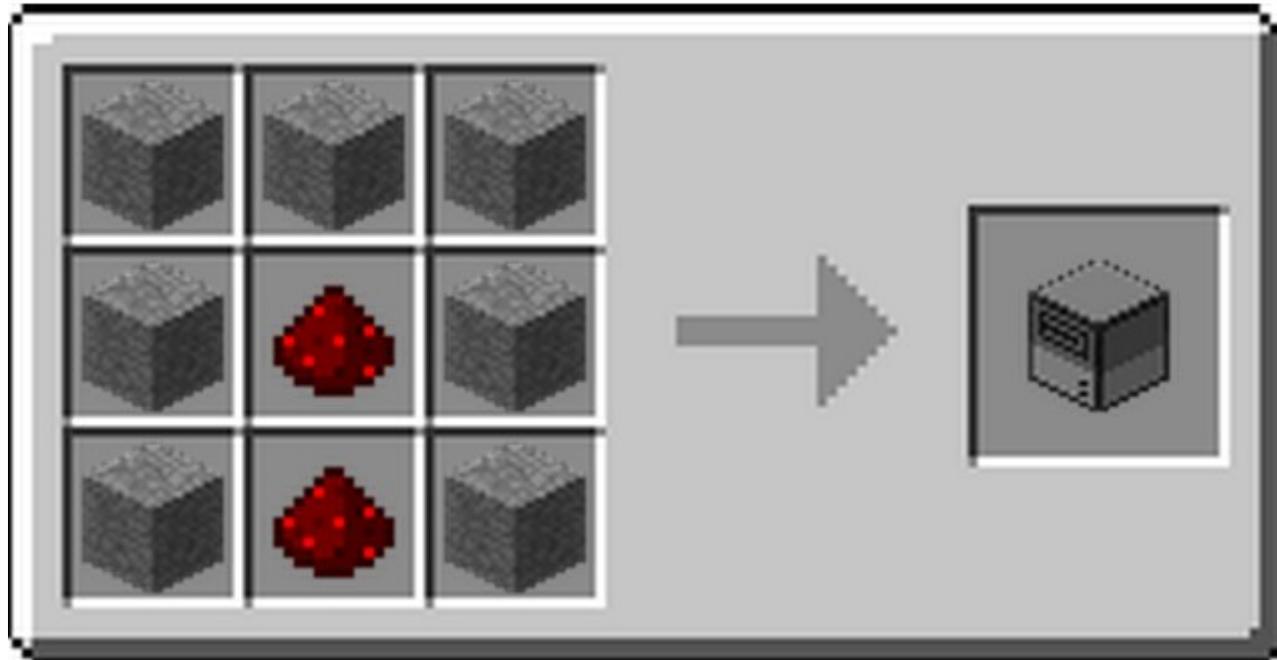


Stone



Glass Pane

# Disk Drive Crafting Recipe

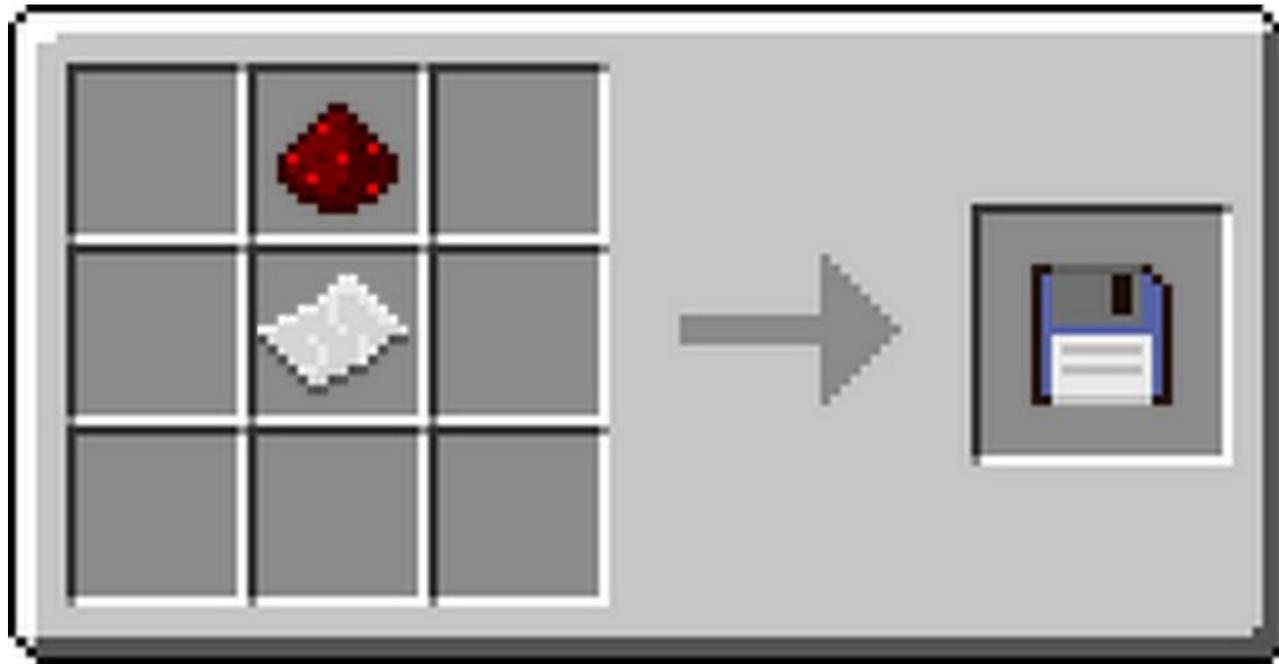


Stone



Redstone

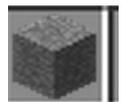
# Floppy Disk Crafting Recipe



Paper

Redstone

# Printer Crafting Recipe



Stone



Ink Sac



Redstone

# Turtle Crafting Recipe



Iron Ingot



Chest



Computer

# Advanced Computer Recipe



Gold Ingot



Glass Pane



Redstone

# Advanced Monitor Recipe



Gold Ingot

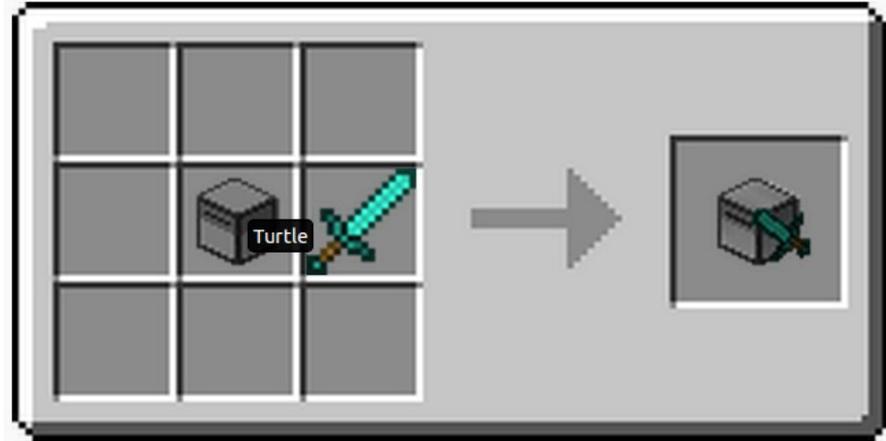


Glass Pane

# Some Turtle Recipes



= Mining Turtle



= Melee Turtle



Turtle



Diamond Pickaxe



Diamond Sword

Go to <http://computercraft.info/wiki/Turtle#Recipes> for more info on turtle recipes

# Command Line

- When crafting a computer or any computer peripheral. Right click the device to enter command prompt, etc.
- Command line works similar to your computer command line

# Introduction to Command Line

- cd – change directory
  - cd .. - go up one directory
- ls – list files in directory
- mkdir – make a new directory
- cp – copy a file
- mv – move a file or directory
- rm – remove a file
- up arrow – last command

# Alias worm and play “Snake”

```
CraftOS 1.5
> ls
rom
> cd rom
rom> ls
apis          autorun      help         programs
startup
rom> cd programs
rom/programs> ls
color         computer    http         turtle
alias         apis       cd           clear        copy
delete       dj         drive       edit         eject
exit         gps       help        id           label
list         lua       mkdir       monitor     move
programs    reboot    redprobe    redpulse    redset
rename      shell    shutdown    time        type
rom/programs> cd computer
rom/programs/computer> alias snake worm
rom/programs/computer> snake_
```

# Copy hello Program and Edit

```
rom/programs/computer> ls
adventure hello      worm
rom/programs/computer> copy hello /
rom/programs/computer> cd /
> ls
rom
hello
> mkdir test
> mv hello test
> cd test
test> ls
hello
test> edit hello_
```

# Edit slowPrint in hello Program

```
if term.isColour() then
  term.setTextColour( 2^math.random(0,15) )
end
textutils.slowPrint( "Coderdojo Rocks!" )
term.setTextColour( colours.white )
```

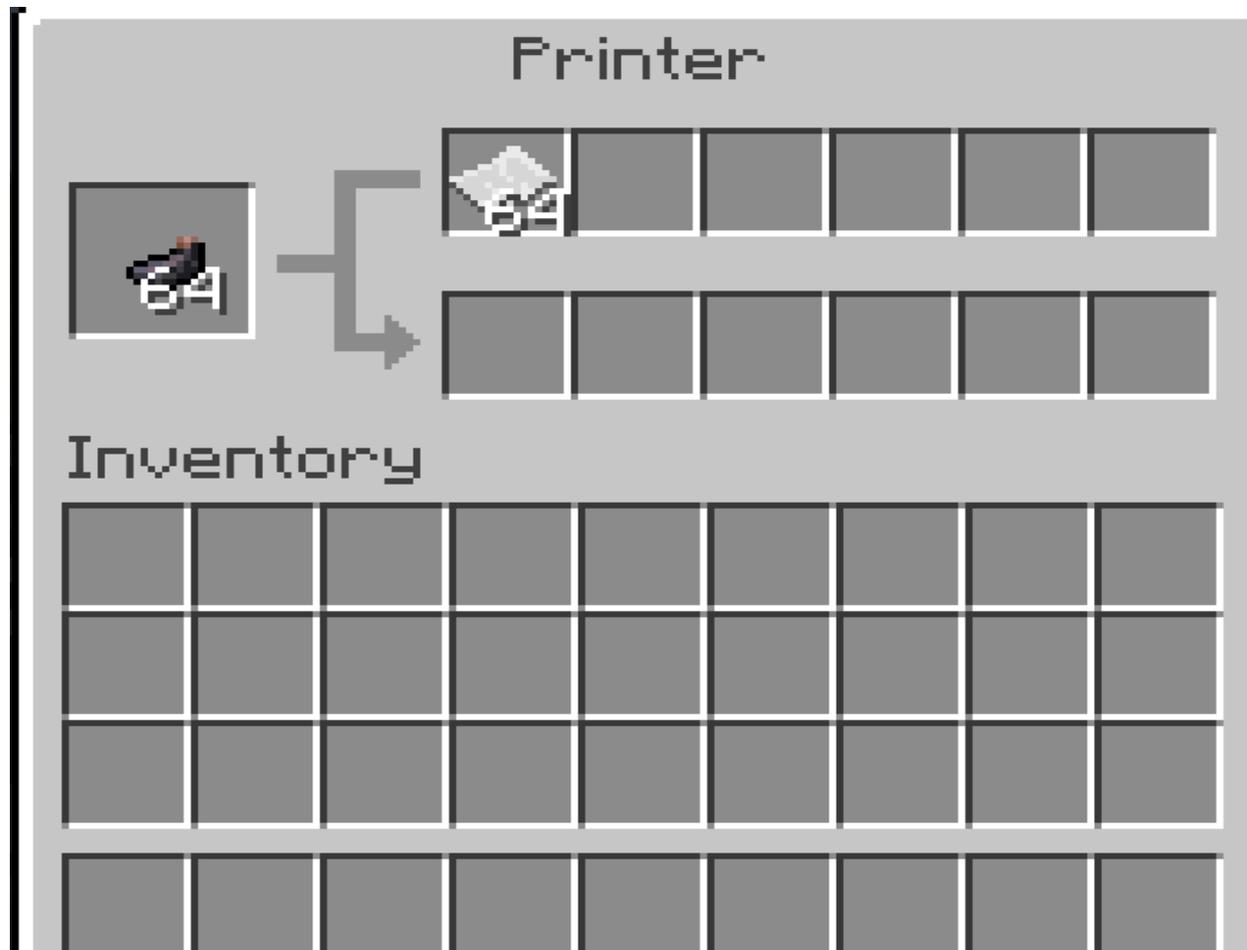
Press Ctrl to access menu

Ln 4

# Display on Right Monitor

```
> ls  
rom  
hello  
> monitor right hello  
Running hello on right monitor  
> _
```

# Put Ink and Paper into Printer



Ink Sac



Paper

# Print hello Code

Step 1: > edit hello

Step 2: Cntrl – arrow over to “Print” - press enter



Step 3: Prints page



Step 4: Get printed page from printer (right click printer)



Step 5: View printed page



# Make a Turtle Dance



Note: Right click turtle to enter above view

# Create Tunnel with Mining Turtle



Note: Make sure you fuel the turtle with coal

# Program a Turtle Using Lua

- Turtle Commands:  
[http://computercraft.info/wiki/Turtle\\_\(API\)](http://computercraft.info/wiki/Turtle_(API))
- Execute the commands via lua interpreter as shown below.



```
> ls
rom
> lua
Interactive Lua prompt.
Call exit() to exit.
lua> turtle.up()
false
Out of fuel
lua> turtle.refuel()
true
lua> turtle.up()
true
lua> _
```

# Have Fun Creating a Turtle Program

- Go to <http://www.computercraft.info/forums2/index.php?/forum/21-turtle-programs> for some example programs
- Save program on disk by attaching a disk drive to the turtle like demonstrated with the computer. (Attach a disk drive by putting it next to the turtle)
- Go to <http://computercraft.info/wiki/Turtle> for more information about turtles

# Thank You

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