
CTD Machines

ADVANCED MINECRAFT!

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Introduction

CTD Machines adds Blocks, Items, Tools and other utilities for further automation and increase the CTD functionality.

This Mod cannot work without the original CTD Mod, and CTD Generators for it uses most of its components and blocks.

Some of the including Blocks or Items use Redstone Flux (RF), thus some form of power generation is required.

1 Alloy Furnace

The Alloy Furnace from CTD Generators gains a few more recipes when this mod is also installed.

8 Redstone	Wool	Redstone Wire (< <i>Insert Wool Color</i> >)
4 Redstone	Glass	Redstone Crystal

2 Wires

2.1 Redstone Wire

Redstone Wires are special wires that can carry a redstone signal 64 blocks far. The Redstone wires can be colored by using different kind of wools in the Alloy Furnace, or dyeing them in the crafting grid.

3 Chips

3.1 AND-Module

Crafting (Soldering Station):

	Redstone Wire	
Redstone Wire	Electrical Circuit	Redstone Wire
Redstone Wire		Redstone Wire

Crafting Component.

3.2 OR-Module

Crafting (Soldering Station):

	Redstone Wire	
	Electrical Circuit	
Redstone Wire	Redstone Wire	Redstone Wire

Crafting Component.

3.3 Timer-Module

Crafting (Soldering Station):

	Redstone Wire	
Clock	Electrical Circuit	

Crafting Component.

3.4 Toggle-Module

Crafting (Soldering Station):

	Redstone Wire	
	Electrical Circuit	
	Redstone Wire	

Crafting Component.

3.5 Memory-Module

Crafting (Soldering Station):

	Redstone Wire	
AND Module	Electrical Circuit	Memory Chip
Redstone Wire	Redstone Wire	OR Module

Crafting Component.

3.6 Redstone Chip-Base

Crafting (Soldering Station):

Stone Slab	Redstone Wire	Stone Slab
Redstone Wire	Motherboard	Redstone wire
Stone Slab	Redstone Wire	Stone Slab

Crafting Component.

3.7 PRC

PRC, or Programmable Redstone Chip, are special blocks that are completely custom configurable. They require at least one Redstone Chip-Base to make and one Module, or Computer Network Connection. You place the Redstone Chip-Base in the Assembly Station and the PRC Form will appear. It will be a plain square when nothing is added, but determined on what you add, the functionality and form can change.

- Sides

You have sides to play with. Each side has 3 slots. Placing a Redstone Wire(Red), will open a Connection Port for input. A Redstone Wire(Blue), will open a Connection Port for output. You need at least one of two, to interact with the rest of the world. You can also have both. The Input Port is the port where incoming redstone signals will be received, and Output Ports where the signal created by the PRC will be emitted. You can also add an Advanced Electrical Circuit to make the PRC intractable with the Computer Network System. If so, the side with the Advanced Electrical Circuit will also need both an Input Port and an Output Port.

- Wiring

Unlike the Redstone Wires in the open world, different colored wires are only used here to prevent unwanted connections. Yet for the sides and the Redstone Torch, Red is defined as Input and Blue is defined as Output.

Redstone Wires are used to connect Modules with one and another.

- Modules

When placing a module inside the PRC, the design looks different per Module. For instance, the Toggle has only 1 input, the Clock has no input, but 1 output, the AND and OR Module have 2 input, but 1 output and the Memory has 1 input, 1 output and 1 reset (will be explained later). You can connect the inputs and outputs together with the use of Redstone Wires.

Redstone Torches can also be used to always emit a redstone signal to a Redstone Wire(Blue). This can be turned of by sending a redstone signal to the Redstone Torch with any Redstone Wire but blue.

This way, the Redstone Torch can also be used to invert a signal.

Module	Function
AND	The AND Module has 2 Inputs. Only when both Inputs have a redstone signal, the module will output a redstone signal
OR	The AND Module has 2 Inputs. Only when either 1 or both Inputs have a redstone signal, the module will output a redstone signal
Timer	Will pulse by default every tick a redstone pulse. Right Click to adjust time
Toggle	On Receiving a Redstone Pulse, the output will become high. For it to become low again a second pulse is needed
Memory	Memory Module has 1 Input, which will set a high output on a redstone pulse. The output however won't become low with a second toggle. Instead it needs a pulse on the reset input

- Existing PRCs

When you made a PRC you must first give it a name. Under that name the PRC will be saved as your knowledge (player bound) and a tab will appear in any Assembly Table when you access it with that name. If you double click that Tab it will use the items in your inventory to remake that PRC.

These PRCs can be used inside other PRCs and thus create an infinite loop PRCs in each other, though instead of remembering the base resources for your highest tier PRC, it will only remember the resources you used, thus the PRCs you used. So you'll have to make all your PRCs again before you can make your super PRC.

4 Machines

4.1 Assembly Table

Crafting:

Advanced Electronic Circuit	Soldering Station	

Used to make Redstone Chips. Place a Redstone Chip-Base in the top left slot to start assembling it, or place a PRC to disassemble it.

4.2 Sensor

<WIP>

4.3 Portable Store-it-all Cube

Crafting:

Iron Ingot	Leather	Iron Ingot
Iron Ingot	Gate	Wireless Modem
Iron Ingot	Iron Ingot	Iron Ingot

A Programmable Backpack! Set the frequency of the Backpack and connect it to an Inventory Manager.

4.4 Inventory Manager

Crafting:

Iron Ingot	Iron Ingot	Iron Ingot
Iron Ingot	Gate	Enderium Cable
Iron Ingot	Iron Ingot	Iron Ingot

The Inventory Manager can't be open, but it is in direct contact with the Portable Store-it-all Cube, thus having the same inventory. You can push items inside the Inventory Manager through pipes to make them appear inside the Portable Store-it-all Cube. You can also extract them from the block with pipes in the same manner.

<frequency can be changed with the Computer Network Commands>.

4.5 Sniffer Upgrade

Crafting:

	Zombie Head	
Paper	Enderium Circuit	Paper
	Hopper	

The Sniffer upgrade is a special upgrade for the Portable Store-it-all Cube. Right Click to access the filter GUI and select up to 9 items. Combine with the Portable Store-it-all Cube in a crafting Grid (contents will not be lost) to apply the sniffer. When applied, the items from the filter will automatically be pulled from your inventory into the Portable Store-it-all Cube, on whitelist mode. On blacklist mode, all items except for the items in the filter will be pulled.

5 Satellite

The Satellite is a really useful machine to have. It allows you to connect to your Computer Network Wireless from anywhere in the world. To start a Satellite network you need to have both a Satellite Control Panel and a Satellite. The Satellite is placed somewhere in the world with the Satellite Control Panel at least 3 at most 16 blocks away.

Inside the Satellite Control Panel you must place a nether star that will start to disassemble into NSF, the fuel for the Satellite it needs only for the launch. Once in past the atmosphere, the Solar Panels will give the Satellite sufficient power to always operate.

5.1 Satellite Control Panel

Crafting:

Ender Transmitter	Monitor(Tier 2)	Ender Receiver
Gate	Mother Board	Gate
Enderium Cable	Enderium Circuit	Enderium Cable

5.2 Satellite

Crafting:

Advanced Solar Generator	Security Station	Advanced Solar Generator
Advanced Solar Generator	Gate	Advanced Solar Generator
	Mother Board	

6 Commands

CTD Machines brings along some new commands for the CTD Computer Network.

!NOTE!

Commands for CTD Machines is not available for the First Age Computer Network.

```
//invPRC is a labeled Block ID.  
Block PRC =getBlock(invPRC);  
PRC.getConnection();  
PRC.South.GetRedstone();  
PRC.West.SetRedstone(true);  
PRC.South.GetRedstone();
```

let's assume that the selected PRC only inverts any signal. In that case while the input is low, the output will still give a redstone signal. Between the 2 GetRedstone() Functions we set the input to high, to swap the output.

199	PRC(South)	Input
199	PRC(West)	Output
199	PRC(South)	True
199	PRC(South)	False