

ProjectE - EMC Guide | Tekkit 2

ProjectE is a mod that allows players to convert several items into energy, and use that energy to create different items. This guide covers how EMC works, how to generate it, and how to scale your setup from early game to late game.

What is EMC?

EMC stands for Energy-Matter Covalence and is the core system of ProjectE, representing the value of several items in game. Almost every item has an EMC value, and items can be freely converted into EMC and then back into other items of less than or equivalent value.

Common items like cobblestone have a low EMC value of 1, while rare items like diamonds have a high EMC value of 8,192. This means you could theoretically convert 8,192 pieces of cobblestone into a single diamond, or break a diamond back down into 8,192 cobblestone worth of EMC.

Items that are crafted have an EMC value equal to the sum of their ingredients, meaning nothing is ever wasted. Any item with an EMC value can be broken down, and its value redirected into something more useful.

Core Items

Transmutation Table

The Transmutation Table is your primary interface with EMC. It acts as a battery for stored EMC, a library of item recipes you have learned, and a fabricator that lets you spend EMC to produce any item you have previously learned. Before the table can create an item, it must first learn it. This is done by placing an item with an EMC value into the flames slot in the GUI, which destroys the item, records its recipe, and adds its EMC value to the table's storage.

Learned items and EMC balance are tied to your player character, not the physical table. When you learn an item at one table, it is learned across all Transmutation Tables you use.

Klein Stars

Klein Stars are portable EMC storage items used to carry EMC with you outside the Transmutation Table. They come in multiple tiers, with each tier holding four times as much EMC as the previous one. They can be charged inside the Transmutation Table and then carried in your inventory, allowing you to spend EMC anywhere.

Philosopher's Stone

The Philosopher's Stone is one of the first crafting goals in ProjectE and is required to craft most other ProjectE items. It also has in-hand functionality, allowing you to transmute blocks in the world directly, such as turning cobblestone into stone, and dirt into sand.

Generating EMC

Early Game | Burning Items and Energy Collectors

The simplest way to generate EMC is to burn items directly in the Transmutation Table by placing them in the flames slot. Everything you mine, loot, or farm has an EMC value. Coal, cobblestone, mob drops, excess tools, and any other items you no longer need can all be fed into the table to build up your balance. This method is slow but costs nothing to set up and is how most players get started.

It is worth learning high-value items before burning them. Once you burn an item and learn it, you can reproduce it from EMC later, so burn duplicates rather than your only copy of something.

Energy Collectors are passive EMC generators that produce EMC from light. They are the foundation of any serious EMC farm and come in three tiers, each producing significantly more EMC per second than the last.

Tier	EMC per Second (max light)	Internal Buffer
Energy Collector MK1	4 EMC/s	10,000 EMC
Energy Collector MK2	16 EMC/s	50,000 EMC
Energy Collector MK3	40 EMC/s	100,000 EMC

Output scales directly with light level, from 1/16 efficiency in near-darkness up to full efficiency at light level 15. To ensure full output at all times including underground or at night, place a Glowstone block directly above the collector, this provides a constant light level of 15 and requires no power.

Mid-Game | Energy Condensers and Anti-matter Relays

The Energy Condenser looks like a chest but converts any items placed or piped into it into EMC, then uses that stored EMC to produce a single target item of your choice. Set the target by placing the desired item in the top-left slot of the condenser's GUI. This makes it extremely useful for converting low-value bulk output, such as dirt and gravel from a quarry, into something more valuable automatically.

Anti-matter Relays connect Energy Collectors to an Energy Condenser across a distance. If a Collector is placed adjacent to a Relay, and that Relay is connected to a Condenser, EMC will flow

from the Collector through the Relay to the Condenser without the Collector and Condenser needing to touch. Relays also come in three tiers, with higher tiers able to transfer and bonus more EMC.

Late Game | The Power Flower

A Power Flower is the standard large-scale passive EMC farm. It consists of multiple Energy Collectors arranged around Anti-matter Relays, all feeding into a central Energy Condenser. The structure gets its name from the flower-like shape it forms when viewed from above.

A full-sized, maximally efficient Power Flower uses 17 Energy Collector MK3s, 5 Anti-matter Relay MK3s, and 1 Energy Condenser. You do not need to build the full structure immediately. Start with a single Collector adjacent to a Condenser, set a target item such as Alchemical Coal, and let it run. Expand by adding more Collectors and Relays as you accumulate enough EMC to afford the upgrades. Three full Power Flowers running simultaneously provides enough passive EMC generation to support most late-game crafting needs.

Energy Condensers will only show that they are taking in EMC once an item has been placed in the top left of their GUI.

Late Game Progression

Dark Matter

Dark Matter in ProjectE consists of Aeternalis Fuel, which is created through the use of the Philosopher's Stone in the following chain:

Coal → Alchemical Coal → Mobius Fuel → Aeternalis Fuel

Creating Dark Matter is required for MK2 upgrades to Collectors and Relays. It has an EMC value of 139,264, which is equivalent to 17 diamonds worth of EMC.

Red Matter

Red Matter in ProjectE consists of Aeternalis Fuel and Dark Matter. Creating Red Matter is required for MK3 upgrades to Collectors and Relays. It has an EMC value of 466,944, equivalent to roughly 57 diamonds worth of EMC.

Guide

Optimising Pipe Usage

Learn how to optimise your ProjectRed pipes.

Introduction

Introduction

An introduction into Tekkit 2, including how to get started and what mods are featured.

Guide

Industrial Craft - Power

Production

An introduction into IC2 power generation and power transfer.

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