

TECHNICAL DOCUMENTATION

TILEZ

A CREATIVE LOGIC SANDBOX

PLAYER'S HANDBOOK

A unified system of programmable tiles. Connect power, signals, and movement to build circuits, machines, puzzles, factories, pixel art, and fully interactive multiplayer worlds.

Everything is a tile. The only limit is your imagination.

00 TABLE OF CONTENTS

01	Getting Started & Controls	3
02	Tile Properties (The Inspector)	5
03	Button Modes	6
04	Power & Signals	7
05	Movement & Kinetics	9
06	Modules (Custom Logic Chips)	10
07	Tools & Features	11
08	Multiplayer	12
09	Tips for Success	13
A	Glossary & Quick Reference	14

This handbook covers the complete TILEZ system — from basic placement tools to advanced signal programming, modular logic chips, and real-time multiplayer. Use the in-game Guides and Challenges panels for interactive tutorials.

01. GETTING STARTED & CONTROLS

TILEZ is a 2D creative sandbox where every element is a programmable tile. By connecting tiles through power, signals, and movement, you can build circuits, machines, puzzles, games, factories, pixel art, and fully interactive worlds.

The core idea is simple yet powerful: a unified system of cause and effect that scales from simple redstone-style contraptions to complex nested logic and multiplayer experiences.

BASIC TOOLS

Remap any key in Settings (F7). Default bindings:

KEY	TOOL	DESCRIPTION
F1	Paint	Place the selected tile (live ghost preview)
F2	Erase	Remove tiles
F3	Select / Copy	Click a tile or drag to select a group
F4	Paste	Place clipboard content (supports rotation)
F5	Save Selection	Save your selection to the Library
F6	Inspector	Edit tile properties (or double-click a tile)
F7	Settings	Options and key remapping
F8	Library	Browse saved tiles, textures, modules, and worlds
F9	Multiplayer	Host or join sessions
F10	Play / Edit	Toggle between building and live simulation
F11	Move Mode	Manually drag tiles
F12	Clear World	Reset the grid (with confirmation)

SHORTCUTS & CAMERA

INPUT	ACTION
Ctrl + S	Quick-save to Library
Ctrl + Z / Y	Undo / Redo
Arrow Keys	Pan camera
Middle-Mouse Drag	Free pan
Scroll Wheel	Smooth zoom (anchored to cursor)
Ctrl + Arrow Keys	Rotate camera view

► TIP**Live Power / Test Mode**

Toggle "Test Power" to run the simulation while staying in EDIT MODE — tiles are fully live and interactive without hiding your editor tools or switching to the simplified Play HUD. Handy for testing a machine while you're still mid-build.

► NOTE**Play Mode**

Press F10 to enter Play Mode for a clean player view with a simplified HUD. Ideal for final testing and sharing.

02. TILE PROPERTIES — THE INSPECTOR

Double-click any tile in EDIT MODE (or press F6) to open its Inspector. Every tile is a tiny programmable machine.

APPEARANCE

On/Off colors, transparency, glow, textures, and border styles.

LOGIC FLAGS

FLAG	EFFECT
Conductive	Passes power to adjacent tiles (up / down / left / right)
Generator	Produces power when clicked or signaled
Locked	Prevents movement or pushing / pulling
Decor	Purely visual — no simulation cost, renders beneath logic tiles
In / Out	Marks ports for Modules (custom logic chips)

MEMORY

Store a number or text. Display it on the tile, perform math, or use in signal conditions. Memory values drive advanced logic and can be incremented, decremented, or randomized via signals.

SIZE, TAGS, HOTKEYS & MORE

Size — Set height & width. Multi-cell tiles rotate as a group (including irregular shapes).

Tags — Assign names (comma-separated for multiple groups) for wireless targeting via Simple Signals.

Hotkeys — Bind a keyboard key to directly activate the tile in Play Mode.

Descriptions — Add speech bubbles that appear Never / Always / On / Off / Hover.

Audio & Particles — Trigger sounds and particle effects on On/Off state changes.

03. BUTTON MODES

Button modes control how tiles respond to clicks and power. Choose the behavior that fits your circuit.

MODE	BEHAVIOR
None	Standard wire — passes power while powered
Toggle	Click once to turn ON, click again to turn OFF
Springback	ON while held, returns to OFF when released
Latch	Stays ON until a Reset Latch signal is received
Repeater	Automatically pulses ON/OFF at a configurable interval
OnHover	Activates when cursor enters, deactivates when it leaves
Relay	Only conducts power when it receives a matching Simple Signal — ideal for logic gates

► LOGIC

Logic Gates via Relays

Combine Tags + Relay mode to create clean AND / OR / filter logic without spaghetti wiring. A Relay only conducts when the wireless signal matches its Tag.

04. POWER & SIGNALS

Tiles communicate in three complementary ways. Master these and you can build anything.

A. ADJACENCY (WIRES)

Power flows between adjacent Conductive tiles (up / down / left / right). This is the foundation of classic circuit-style builds.

B. SIMPLE SIGNALS (WIRELESS)

A powered tile broadcasts to all tiles sharing a matching Tag. Relays only conduct when they receive a matching signal — perfect for AND/OR gates and filters.

C. ADVANCED SIGNALS (PROGRAMMABLE ACTIONS)

When a tile powers ON or OFF, it can trigger one or more actions. Each signal has:

- Trigger — OnPowerOn or OnPowerOff
- Target — By Tag, By Tag + Offset, Self, Self + Offset, or Activator
- Condition (optional) — e.g. Memory = 5, Tile Exists at offset, etc.

Available Actions (19 total)

ACTIONS REFERENCE		
Modify Properties	Copy Attributes	Increment / Decrement Memory
Set Memory Random	Button Turn On / Off / Switch	Reset Latch
Move Tile	Duplicate Tile	Create Tile (from Library)
Delete Tile	Rotate Left / Right	Camera Control
Change Background	Set Player Camera	Set Movement Controls

Signals support per-signal cooldowns and safe limits to prevent performance issues.

05 MOVEMENT & KINETICS

Tiles can push, pull, and interact physically. Movements are atomic — entire connected chains move together or not at all.

COMPONENT	BEHAVIOR
Pushers	Push tiles in a direction when powered (set reach and distance)
Pullers	Pull tiles toward the source
Grabbers	Stick neighboring tiles together so they move as a group
Locked Tiles	Immune to all movement forces

► PHYSICS

Atomic Movement

Connected groups move as a single rigid body. If any part of the chain is blocked, the entire movement is cancelled. Use Locked tiles as anchors or barriers.

06 MODULES — CUSTOM LOGIC CHIPS

Pack complex machines into a single reusable tile. Modules support deep nesting (modules inside modules) and integrate seamlessly with signals and power.

WORKFLOW

1. Build your logic on the grid.
2. Mark key tiles as Input and Output ports.
3. Save the machine to the Library.
4. Place the saved Module anywhere — it runs invisibly.

► BEST PRACTICE

Modular Design

Save often to the Library. Treating subsystems as Modules keeps large projects manageable and lets you reuse proven logic across worlds and multiplayer sessions.

07. TOOLS & FEATURES

Texture Capture

Activate the tool, drag-select any region, and instantly create a reusable PNG texture. New textures appear immediately in the Inspector.

Library

Save and reuse tile groups, modules, textures, and entire worlds. Supports previews and quick placement.

Selection & Clipboard

Drag-select, copy, rotate, and paste groups. Save selections for repeated use.

Undo / Redo & Saving

Full undo/redo history. Quick-save (Ctrl+S) and atomic world saves.

Decor Layer

Place purely visual tiles that sit beneath logic tiles with zero simulation cost.

Tutorial System

Follow LEGO-like instructions to build things and create your own tutorials.

Stacking Tiles

Stack tiles of the same size by moving them if they are toggled as 'stackable'. The top tile of each stack is active; tiles below are treated as decor.

08 MULTIPLAYER

Play and build together in real time. Everything — power, signals, movement, modules — works seamlessly in multiplayer.

FEATURE	DETAILS
Host Session	Press F9 to generate a Join Code (no port forwarding needed)
Shared Simulation	Actions affect everyone in real time
Player Cursors	Visible color-coded cursors for all players
Independent Cameras	Each player has their own camera and hotkeys
Camera Signals	Camera Control signals can target specific players

09 TIPS FOR SUCCESS

- ▶ Start small: Build basic circuits with wires and buttons before adding signals and modules.
- ▶ Use Decor tiles liberally for visuals — they cost nothing in simulation.
- ▶ Tags + Relays are your best friends for clean, readable logic.
- ▶ Save often to the Library — modular design makes big projects manageable.
- ▶ Experiment in Play Mode (F10) to test machines without editor clutter.
- ▶ Use the in-game Guides / Rulebook (accessible via UI) for quick reference.
- ▶ New to TILEZ? Open the Challenges panel for guided, step-by-step tutorial builds.



TILEZ rewards creativity and iteration. There are no artificial limits — the only ceiling is your imagination.

Have fun building, breaking, and inventing.

A

◆ GLOSSARY & QUICK REFERENCE

Conductive

A logic flag that allows power to flow to adjacent tiles.

Decor

A purely visual tile with zero simulation cost. Renders beneath logic tiles.

Generator

A tile that produces power when clicked or signaled.

Grabber

A kinetic component that sticks neighboring tiles so they move as a group.

Latch

Button mode that stays ON until a Reset Latch signal is received.

Library

Central storage for saved tiles, modules, textures, and worlds.

Locked

Prevents a tile from being moved, pushed, or pulled.

Memory

Numeric or text value stored on a tile; can drive conditions and display.

Module

A reusable custom logic chip created from a saved group of tiles with In/Out ports.

Pusher / Puller

Kinetic tiles that exert directional force when powered.

Relay

Button mode that only conducts when it receives a matching Simple Signal (Tag).

Simple Signal

Wireless broadcast from a powered tile to all tiles sharing a matching Tag.

Advanced Signal

Programmable action triggered on power state change, with target and optional condition.

Tag

Named identifier (comma-separated allowed) used for wireless signal targeting.

Test Power

Runs the simulation live while remaining in Edit Mode with full editor tools.



For the latest updates, interactive tutorials, and community creations, open the in-game Challenges and Guides panels.