

Mobile Frame Zero:Condensed

revision 0.96

- *Text Only Version* -

This document is a faithful reproduction of all the rules of MFZ:Rapid Attack's Core Rulebook. It has been cleaned, streamlined and simplified where applicable and is meant to be a resource for quick reference during play and easy access to the game's ruleset. It does not contain any of MFZ's background. This version is without any art assets or image other than the dice icons and meant for mobile use, among other small filesize applications. It has been created with the efforts of the /tg/mf0/ crowd, the Hangar Crew and other helpful beings that assisted in cutting the fat.

INDEX

1. Introduction 03

- Mobile Frames. 03
- Why Lego? 04
- Scale and size restrictions. 04

2. Preparations! 05

- Ruler and units. 05
- The dice of MFZ. 06
- Dice assortment per player. 06
- Player count and game size. 06
- Frames: dicepool & actions. 06
- Frames: Gear & Weapons. 07
- Weapon ranges. 08
- Frames: additional dice. 09
- Stations, cover & terrain. 10

3. Field Day! 11

- Bidding Phase. 11
 - Assets & ppa. 11
 - Tactical position. 12
- Deployment Phase. 12
 - Point Mobile Frame. 12
 - Attackers' frames. 13
 - Attackers' stations. 13
 - Defender's other frames. 13

- Combat Phase. 13
 - Tactical order. 13
 - Combat order. 14
 - Capturing stations. 14
 - Contested stations. 15
- A Frame's Turn. 15
 - Target designation. 15
 - Roll dicepool. 15
 - Defense. 16
 - Attack or move. 16
 - Moving. 16
 - Attacking. 17
 - Spotting. 17
 - Resolve attacks. 17
 - Resolve damage dice. 18
 - Resolve damage. 18
- Example attack. 19
- Doomsday Clock. 19
- Principle of judgment calls. 19

4. Alternative Rules 20

- Split-range weapons. 20
- SSR: More or less. 20
- Climbing, elevation & falling. 20
- Hazardous terrain. 21
- Per-frame initiative. 21
- Dropping Whites for damage. 21

1. Introduction

Mobile Frame Zero:Rapid Attack is a tabletop wargame designed to be played with LEGO robots, with rules that are accessible to a broad spectrum of ages and provide casual fun as well as high-pitched, intense battles. With a unique setting that allows for myriads of builds when it comes to Mobile Frames and their companies, MFZ is for the builder, the wargamer and everyone in between.

The game was released summer of 2012, but is based on the 2002 game 'Mechaton', which was just the crunch of the rules you see here. MFZ has been revised by Joshua A.C. Newman, with the help of Mechaton's inventor, Vincent Baker and his son Sebastian Baker. Joshua also got Soren Roberts on board, a Lego designer and freelance graphics artist who has some reputation on FlickrR for his microscale spaceships, anime-inspired mecha and other Lego creations.

MFZ was made to bring affordable wargaming to the kitchen table, without relying on prebuilt models, allowing for as intricate or simple models as a player likes. With that, MFZ is abstracted quite far, simplifying many elements which are much more elaborate in other wargames. MFZ is also heavily favouring action over

inaction. With emphasis on attacking, a timer to keep things fast paced, and an intentional shortage of resources, every decision is meant to be tough. High risk elements combined with strategic sacrifices is what makes MFZ an entertaining game.

How the designer describes it:

Mobile Frame Zero: Rapid Attack is the tenth anniversary edition of Vincent Baker's Mechaton. Build yourself a company of robots called mobile frames out of LEGO, give yourself some objectives to defend, lay out a table with a few friends, and fight!

Because, just like a LEGO set, building what's on the front of the box is fun, but building your own thing is where it really catches fire. So that's what we want you to do! Build robots, play with our setting, sure! If you're into VOTOMS, Dougram, Macross, or Gasaraki, then we want to play with you!

Mobile Frames.

In the Solar Calendar, as Joshua calls the timeline and universe of MFZ, humanity has surpassed the boundaries of Earth and is traveling deep into space using Transit Gates to cover the distance. The majority of the manual labor is conduc-

ted by Mobile Frames, large machines somewhere between exoskeleton and full-blown mecha. They are three to four times as tall as humans and develop six times their lift and carrying capabilities, while retaining human mobility and most of the agility. These mobile frames were sooner, rather than later, integrated into military purposes, and are used as the one-stop solution to anything that requires force on the ground. While the military and paramilitary organizations of the Solar Calendar use combat-specific builds, many rebels or less fortunate mercenaries use repurposed labor frames just the same. This book will use the term “frame” when referring to Mobile Frames, combat-oriented or otherwise.

Why LEGO?

Lego has multiple advantages for war-games. For example, many people already have LEGO at home that they can use to build mobile frames for MFZ:RA. Additionally, once a robot is built, there is no need to paint it up, reducing the prep time until one can actually play. This is also true if a player wants to try out different compositions — all it takes is a few different bricks. Since there is also a large international community that builds these Lego robots, there is no shortage of inspiration for new and starting builders.

Scale and size restrictions.

MFZ uses what is called the 7p scale. Essentially, an average human is 7 plates of Lego tall. That means that anything else modeled should reflect this, so when two forces meet, they look roughly at the same dimensions. 7 plates is two bricks and a plate on top.

As loose rule of thumb, frames should generally fit inside a box that is 10 studs wide, 10 studs deep and 12 bricks tall. There is some wiggle room for quadrupeds, but it should generally be observed as the maximum. Size creep can quickly become an issue. Since there is a definitive size for humans, this also requires some space where the human can fit inside a frame — generally, the torso. Otherwise, MFZ has no restrictions on what a frame should look like, what colors or parts to be used, and if you don't want to use Legos, a Gundam model with removable systems is fine, too.

2. Preparations!

To play MFZ, you will need to prepare a few things before you can dive into the fight. Since building is a huge part of the MFZ experience, take your time when building your army. As long as they fit within the scale, anything you can come up with is considered legal. It is beneficial to have the individual systems of your frames visible, though.

You will need:

- One company of mobile frames per player.
- Some terrain pieces, for cover and stations.
- One ruler, eight units long.
- A dice assortment depending on your company.
- A way to track the doomsday clock in 11 steps.

Ruler and units.

By default, you will play with a ruler that eight units long, and one unit is a 1x4 click hinge brick or 5 studs in length.

Combining eight hinge bricks gives you a ruler that can measure around corners. Especially useful to plot paths through or around cover and obstacles.

The game area should measure between 4 and 6 ruler lengths diagonally and circular; or square. With hinge bricks, 4 lengths is the equivalent to about 45"/115cm. 6 lengths is the equivalent to about 60"/150cm.

As a general rule when measuring between two targets, measure between the closest points of them. Barrel to body part, blade to arm, back to cover, etc.

Smaller & larger fields.

If your playing field is bigger or smaller, adjust accordingly. With a bigger table than 6 ruler lengths, expand the ruler units to match the table size, or tape off the edges of corners of your gaming area to stay within 4 to 6 lengths.

If your area is smaller than 4 rulers, reduce the ruler to 6 units length. Weapon ranges behave accordingly, so direct-fire is now between 1 and 6 units, and artillery starts beyond 6. Spotting behaves just the same.

Larger Frames.

If you want to field larger frames, keep in mind that you will need to adjust your ruler. Spitball the size difference and manufacture a ruler that fits the new scale.

Subsequent measurements, such as direct-fire all work according to this new ruler. If you expand the ruler by a considerable amount, keep in mind that your gaming area will also increase in size.

The dice of MFZ.

Die		Function
		Wildcards
		Defense
		Spotting
		Movement
		Attacking

Dice assortment per player.

You will need a handful dice to make sure everyone can play out their turn without dice needing to be passed around. Aim to have one set per player. You can go with less or substitute, but you might end up having to mark things down.

These dice cover all needs:

- 2 × white d6.
- 1 × blue d6 per frame you field.
- 1 × yellow d6 per frame you field.
- 1 × additional blue d6.
- 1 × additional yellow d6.
- 2 × green d6.
- 1 × green d8.
- 4 × red d6.
- 4 × red d8.

Player count and game size.

MFZ has two game sizes — Skirmish and Battle. Skirmishes go faster but are usually more fierce, whereas battles can go for a long time. Battles are where the battlefield carnage is usually the greatest. Decide with your players what kind of game you want to play and consult the tables for the company sizes and stations to bring.

Skirmish

Players	Stations	Frames
2	3	4 to 6
3	2	3 to 5
4	2	3 to 4
5	1	3 to 4

Battle

Players	Stations	Frames
2	3	5 to 8
3	2	4 to 7
4	2	4 to 6
5	1	3 to 5

Each company also has 3 Single Shot Rockets (SSR) to be attached to frames.

Frames: dicepool & actions.

Each frame has a dicepool for its actions, starting with 2 white dice representing the basic machine and the pilot's regular senses. You can expand this dicepool with

up to 4 systems. No more than 2 systems of any given type can be equipped, but otherwise load-outs are unrestricted.

Yet, even without any systems present, a mobile frame can do several things using its white dice for these purposes.

Actions:

- Defend itself.
- Move, navigate around cover.
- Spot a target out of cover in direct-fire range.
- Attack at hand-to-hand range.

Systems are restricted to their specific uses, but having one or more equipped unlocks certain special abilities that white dice cannot perform as well, if at all. Additionally, without any weapon systems present, a frame can only attack at 1 unit range, for hand-to-hand combat. Since MFZ is a game about attacking, such a frame would be at great disadvantage.

Frames: Gear & Weapons.

There are 6 types of systems and a maximum of 2 per type. These systems expand the dicepool a frame has, but only for the specific role they have. A frame can have any amount from 0 to up to 4 systems in its loadout.

Gear systems.

Defense:

#	Dice	Effect
1		Adds one blue d6.
2		Adds two blue d6. Provides cover to another frame without risking damage itself.

Examples: Thick armor, shield, camouflage, ECM, stealth composite coating, reactive armor.

Movement:

#	Dice	Effect
1		Adds one green d6. May move through cover.
2		Adds two green d6. May move through cover.

Examples: Jump-jets, wings, wheels, multiple legs, skates, stronger engine, claw feet.

Spotting:

#	Dice	Effect
1		Adds one yellow d6. May spot targets in cover Range: 8 units.
2		Adds two yellow d6. May spot targets in cover. Range: Any.

Examples: Radio, laser range finder, rifle scope, sensors, frequency interceptor, spotlights.

Hint:

Keep in mind that you can use less than four systems when putting your company together. This becomes important when you compare the forces fielded before the game starts!

Weapon systems.

Hand-to-hand:

#	Dice	Effect
1		Adds two red d6. Range: 1 unit.
2		Adds two red d6. Adds an additional red d8. Range: 1 unit.

Examples: Shock baton, combat knife, repurposed jackhammer.

Direct-fire:

#	Dice	Effect
1		Adds two red d6. Range: 2 units to 1 ruler.
2		Adds two red d6. Adds an additional red d8. Range: 2 units to 1 ruler.

Examples: Assault rifle, grenade launcher, flamethrower, beam weapon.

Artillery:

#	Dice	Effect
1		Adds two red d6. Range: beyond 1 ruler.
2		Adds two red d6. Adds an additional red d8. Range: beyond 1 ruler.

Examples: Mortar, sniper rifle, railgun.

Weapon ranges.

Weapon ranges in MFZ are exclusive to one another and not “downwards-compatible.”

Range increments:

- Hand-to-hand, up to 1 unit.
- Direct-fire, above 1 unit, up to 1 ruler length.
- Artillery, beyond 1 ruler length.

This means that direct-fire cannot be used at hand-to-hand range, just as artillery cannot be used at either hand-to-hand or direct-fire range. Each weapon system only works within its increment.

If you are unsure about the ranges between things, you can measure at any time during the game, even out of turn.

Reminder:

When you measure, measure from the closest points between target and attacker. When in doubt, the target is in range.

Frames: additional dice.

Single Shot Rockets

Every Company starts with 3 SSR, which can be put in any configuration on any frame, as long as the total of 3 is present.

#	Dice	Effect
0		Adds one red d8. Range: 2 units to 1 ruler. Discarded after one use. Indestructible.

Examples:

Hand grenade, rocket pod, underslung launcher.

A frame can carry all three of these, if you so choose. Since SSRs do not count as systems they cannot be destroyed.

Sprinting

If a frame has neither direct-fire or artillery weapon systems installed, it receives a bonus d8 for its movement, which allows it to traverse cover, too.

#	Dice	Effect
0		Adds one green d8. May move through cover. Indestructible.

Examples:

Sprinting is a benefit of carrying no ammunition.

Since Sprinting is not a system, it cannot be destroyed. If a frame which has ranged weaponry loses those due to damage, it automatically gains this bonus.

Hint: The “Soldier” Configuration.

A soldier-configured frame carries 1 defensive system, 1 movement system, 1 spotting system, and 1 direct fire weapon system. Every other mobile frame is a specialist of sort. When you’re creating your frames, an easy way to start is to make a soldier configuration and then swap systems in and out to specialize as needed.

Die configuration notation.

Count each of a frame's dice and list them off as you deal with them to give a quick description of a loadout. Every frame starts with “WW”, for two white d6. Add the other dice accordingly.

For attack dice, add a lowercase letter to indicate the range it is used at.

- h = Hand-to-hand
- d = Direct-fire
- r = Rocket - still direct-fire; for distinction.
- a = Artillery

If a frame has any d8, just add the 8 after the color, such as G8 or R8d. SSR are labeled as R8r - Red, d8, “rocket” range letter.

Example:

A Soldier frame with two SSR would be WWBYGRdRdR8rR8r. It has its two white dice, one dice for Defense (blue), Spotting (yellow), Movement (green) and two dice for Attack (red) at direct-fire range (d) and its two rockets (R8r).

Stations, cover & terrain.

Build several pieces of terrain. Terrain can be stations, cover and just things that look pretty. If you are playing with rules for hazardous terrain, you should also build pieces for that, such as irradiated ground or perilous plants.

Stations.

Stations have distinct properties:

- Distinct from terrain and cover.
- Have a location to put a marker.
- Maximum base size is 4×4 .

There are no other limits stations. For stations, build anything that is valuable to defend or seize. The door panel on a drop ship, a cache of medical supplies, a research facility's data storage drives, a truck with a flat tire and a load of fresh peaches.

Hint:

If you use something with a larger base, mark the section that is the station. The rest is regular cover.

Cover.

Any structure on the battlefield is cover if it's 3 bricks or more high, except stations.

A frame counts as in cover, if:

- Within 1 unit range of the structure.
- The cover is between the combatants.

If there are terrain pieces anywhere else between target and attacker but further away than 1 unit of the target, ignore them.

Hint:

When building your cover, make the height about 6 to 8 bricks tall, so the cover provides a large enough surface to provide protection.

Additionally, frames that have not been destroyed count as cover, too. Even hostile ones!

Suggested house-rule:

Instead of entire terrain pieces, count only actual bricks for the purpose of cover.

Other terrain.

You can also build terrain that is not a station and less than 3 bricks in height. Such elements are just eye-candy, unless you are playing with the additional rules for hazardous terrain. Optionally, you can build difficult terrain which does not provide cover, but still requires a movement system to traverse.

3. Field Day!

A game of MFZ is separated into three phases: bidding, deployment and combat. These phases flow into each other, making the prior phases influence the following. A good tactical approach begins before the first shot is fired. Your score in the bidding phase gives you a certain tactical position, which you then apply in the deployment phase, which in turn affects your combat phase.

Bidding Phase.

At the beginning of a game, compare all present companies against one another. In general, the player with the smallest, weakest company gets the points advantage and starts the battle on the defensive. The player with the largest, most powerful company gets a points penalty and starts the battle on the offensive.

Hint:

You'll have to guess your opponents forces while you're designing your own company to get the position you hope for. The pregame bidding is already part of the tactical calculations!

The most advantageous companies are:

- Slightly smaller and weaker, so that you gain the point advantage for little tactical cost.
- Significantly larger and stronger, so that you sacrifice the point advantage for greater force.

Assets & points per asset.

All your frames and stations under your control are assets. Each asset has a point value determined by the relative size and strength of the company you sent into the field.

Points per asset, ppa, is dependent on how a company compares to the others. Every company starts with a ppa of 5. From here, apply the following modifiers:

Company has ...	Effect
... most frames	-1 ppa
... most systems	-1 ppa
... least frames	+1 ppa
... least systems	+1 ppa

In case of ties, both players adjust their scores.

You calculate points per asset once at the beginning of the game. Your ppa does not change as the game progresses. Yet, as you play, you'll lose mobile frames, and stations will change hands. This changes how many assets you hold, not your points per asset.

$$\text{Score} = \text{Assets} \times \text{ppa}$$

When the game starts, your score determines your position in the tactical order, whether you are the defender, point attacker or one of the other attackers.

Ties for defense.

When you compare your companies during setup, you might tie for the highest score. When this happens, call odds/evens and roll a die.

Winner decides:

- add a frame to their company (if possible).
- remove a mobile frame from their company.
- force the loser to make the same choice.

Compare companies again. That means, recalculate points per asset, recalculate starting scores and then proceed.

Ties for offense.

If you tie for the lowest starting score, call odds-evens and roll a die.

Loser has to...

- ... place the point mobile frame.
- ... go last in tactical order, until score changes.

Hint:

If you think you might tie, be sure to bring a spare mobile frame to the game with you.

Tactical position.

There are three potential tactical positions a player can have in MFZ. Defender, Point Attacker and Attacker. The score determines which position a player holds.

Player has ...	Tactical Position
... highest score.	Defender
... lowest score.	Point Attacker
... neither.	Attacker

Deployment Phase.

Put your cover and terrain pieces on the playing field, except for stations. Any player can adjust the battlefield layout until everyone is satisfied. This may require compromises. When every player approves the layout of the battlefield, deployment of stations and frames begins.

Defense setup.

The player with the highest starting score places all of their stations. The defender places all stations wherever they like, within 1 ruler length of at least one other station. Everything within the range of one ruler length around these stations is the defensive perimeter. Place two frames within this defensive perimeter.

If you manage to position your stations in a way that prohibits legal placement of

the attackers, then move your stations so they leave at least one third of the battlefield outside the defensive perimeter.

Hint:

It's probably to your advantage to place your frames at the advance edge of your perimeter.

Point Mobile Frame.

The Point attacker goes next, placing the point mobile frame:

- Out of cover.
- Outside the defensive player's perimeter.
- At 1 ruler length distance of at least one of the Defender's frames, in range for direct-fire.

Attackers' frames.

After this, all offensive players alternate, descending by score, frame for frame, until all frames are on the field.

Frames are placed:

- Outside the defensive perimeter.
- Outside direct fire range of any of the Defender's frames.
- Otherwise, unrestricted.

Attackers' stations.

Once all attacking frames are on the field, attackers alternate again, placing stations. On each of their turn, they place one station, wherever they like.

Defender's other frames.

The defender finishes placing all remaining frames. There are no restrictions, except frames placed outside the perimeter must be in cover.

Combat Phase.

The combat phase is broken up in tactical order and combat order. During the round, you will switch back and forth between tactical order and combat order. Keep a running score for each player, as frames are destroyed and stations seized.

$$\text{Score} = \text{number of assets} \times \text{ppa}$$

As scores change, so does tactical order. The round ends when the last frame has taken its turn. At the end of the round, pick up all marker dice and count down to doomsday.

Tactical order.

While in tactical order, the player with the highest score goes first.

- Choose one of your frames and take its turn.
- Every frame has one turn per round.
- If you don't want to go, you can pass to the next player.
- If you are the last player, you must take a turn.

If all your mobile frames have already taken their turns this round, you have to pass to the next player in tactical order. When a mobile frame takes its turn, resolve it. If a frame attacks another frame that has not taken its turn yet, switch to combat order.

Return to tactical order as needed, beginning again with the player with the highest score, until all frames have taken a turn. If you lose all frames, you automatically pass or end the round. You can still count down the doomsday clock.

Combat order.

In combat order, the attacking & defending frames' turns entwine.

- Attacker takes the first part of their turn.
- When Attacker attacks, their turn pauses.
- Target frame becomes active
- Target rolls dicepool and assigns defense value.
- Attacker resolves any hits.
- Target removes any damage taken.
- Attacker finishes turn.
- Target finishes their turn, including movement and own attacks.
- This counts as that frame's turn for this round.

Combat order continues, as defending frames may attack as part of their turn, too, until all combat is resolved.

Once all combat is resolved, return to tactical order to continue the round.

Hint:

If a target is activated during combat order and destroyed it does not get to move or attack. If it is not destroyed, though, it still gets to use any dice already rolled—regardless of what systems it may have just lost.

Capturing stations.

At the beginning of a game, all stations are under control of their owners. Even without any guards nearby, they remain under their control, until an opponent's frame captures them.

At any time and for any reason, you gain control of a station when:

- You have a frame within 1 unit of the station and
- No other players have a frame within 1 unit of that station.

You lose control of a station when::

- Any other player has a frame within 1 unit of the station and
- You do not have a frame within 1 unit of the station.

Recalculate scores immediately when a station is gained or lost.

Hint:

They can change hands multiple times a round!

Contested stations.

In a game with three or more players, it's possible to lose a station without any opponent capturing it.

All three conditions need to be met:

- One frame within 1 unit of a station you own.
- Two or more hostile frames are also in range.
- Your frame moves away or is destroyed.

When this happens, the hostiles cannot capture the station, because while they are in range, the station is contested by the others. You lose the station, but neither of them get it until they resolve their standoff. Recalculate your own score when you lose the station. The other players recalculate their score when the tie is resolved.

A Frame's Turn.

A frame is either activated by its controlling player or by coming under attack from another frame. When activated, play out the turn in sequence.

Turn sequence:

- If you want, declare attack range and target.
- Roll the entire dicepool at once.
- Assign a value to defense.
- Assign the rest of the dicepool accordingly.
- Move, then attack or attack, then move.
- Spot.

A Frame's Turn: Target Designation.

Name a hostile frame as the target of your attack. You can name no target, if you prefer not to make an attack. Cover can also be targeted, instead of a frame. Stations and your own frames cannot be targeted.

When you designate a target, you need to declare which weapon system at what range is used for the attack. You can declare a target that is currently out of range, but you must immediately move your frame within the declared range or forgo the attack.

A Frame's Turn: Roll Dicepool.

Pick up the dicepool as per a frame's loadout and roll them all at once. Assign dice to defense, movement, attack and spotting. You can only assign one die per action. And each die can be assigned only once.

You can substitute any colored dice for white dice, as they are wildcards. You can look at your dicepool results before you swap white dice in. Swapping is optional. A frame without a defense/spot/movement/hand-to-hand systems must use its white dice for those functions.

If you do not have enough dice to fulfill an action, this unassigned action counts as 0. Once all dice are assigned to actions, discard any leftover dice.

Hint:

This includes dice that cannot be assigned, such as a leftover red die, which cannot be assigned to Defense, even if Defense is unassigned.

Example:

A frame with WWRdRd rolls:

Red 3, 5

White 3, 4

Blue, Green, Yellow have no system left, so Whites need to be assigned. If no white die is assigned to Spot, the Spot is 0. Likewise for movement or defense.

Hint:

Defense 0 makes for easy pickings!

A Frame's Turn: Defense.

Assign a blue die or a white die to your defense. If you don't have any defensive systems, you didn't roll any blue dice, so choose a white die or forgo your defense, making it 0 for this round. Place a blue die on the battlefield next to the frame, turned to your defense value. This is this mobile frame's defense for the entire round, it won't change it until next round.

If you rolled your frame's dice because there is attack lined up against your frame, resolve the attack now. Wait for your attacker to finish its turn before you continue yours.

A Frame's Turn: Move Or attack.

You may choose whether to attack before you move or move before you attack. But even if you move out of range of your attacker, their attack will resolve normally.

Hint:

You cannot run away from bullets that are already on their way!

A Mobile Frame's Turn: Moving.

When you move: Assign a green die or a white die to your movement. If you didn't roll any green dice, choose a white die or forgo movement, making it 0. Move a number of ruler units equal to or less than the result of your movement die. If you have any movement systems or the bonus d8 for carrying no ranged weapons, you can pass through cover as though it weren't there; otherwise, you have to go around it. Any frame with a movement system can also stand atop of cover.

Reminder:

Any structure on the battlefield at least 3 bricks high counts as cover, including frames but excluding stations.

A Frame's Turn: Attacking.

When making your attack, check whether the target you designated is within the range you declared. If not, you forgo the attack. If it is in range, assign a red die or a white die to your attack. Whites can only be swapped in for ranged attacks in if you have a weapon at that range. You can voluntarily abort your attack by choosing to assign no die to it. If you abort the attack, the target does not get activated. If your target is at 1 unit range, you do not need red dice and can use whites.

If it is within range, resolve your attack now against its standing defense.

If the target has no defense die because none was assigned when it had a turn, count Defense as 0. If it doesn't have a defense die because it has not been activated yet, switch to combat order. Put your turn on hold until your target has a defense value assigned, then resolve your attack normally.

If you are attacking cover directly, count its defense as 0. Cover cannot be in cover itself.

Once you've assigned an attack die and told it to your target, it is too late to abort.

A Frame's Turn: Spotting.

Assign a yellow die or a white die to your spot. If don't have any spotting systems, you may still spot by assigning a white die. Declare the target of your spot, based on your spotting systems. Place a yellow die next to your spotted target, turned to the value of your spot die.

If the declared target is already spotted, you can only replace the die if yours would be higher. Otherwise, forgo your spotting. You cannot spot first and follow it up with your own attack. If you attack, you spot after it has resolved. You cannot spot cover or stations.

Reminder:

Without spotting systems, the target must be:

- within direct fire or hand to hand range
- out of cover.

With one system, the target must be:

- within direct fire or hand-to-hand range
- can be in cover.

With two systems, you can spot everything.

Resolving Attacks.

If there is a spot on the target, you may choose to add its value directly to your attack value. If you do so, remove that spot die from the field. It doesn't matter who placed the spot, you can use anybody's spot, and anybody can use yours.

Hint:

While this may seem odd, there is no effective downside to sharing spots. An opponent using your spot effectively helps your case by attacking another opponent for you!

Reminder:

If the covering mobile frame has two defensive systems it is not damaged by stray shots. A second defensive system allows a frame to provide cover without risking damage!

Calculate your damage dice.

$$\text{Damage Dice} = \text{Spot} + \text{Attack} - \text{Defense}$$

Resolving Damage Dice.

Roll one six-sided die for every damage dice, and check the table for damage.

weapon	cover	damages on...
Melee	ignores cover	4, 5 & 6
Ranged	in cover	4, 5 damages cover 6 damages target
Ranged	not in cover	5 & 6
Ranged	covered by frame	5 damages cover frame 6 damages target
Any	IS cover	4, 5 & 6 damage cover

Apply damage to the cover first, 4s before 5s. If the cover is destroyed mid-process, treat the target as out of cover. Any remaining 5s blow through and damage the targeted frame. 6s always damage the target.

Apply damage to a covering frame first. If the covering frame is destroyed mid-process, treat the target as out of cover. Any remaining 5s after the cover frame's destruction damage the targeted frame.

Cover cannot be spotted. Structures fewer than 3 bricks high do not count as cover. If you hit cover, every confirmed damage roll removes 6 bricks, attacker's choice.

Hint:

You can effectively raze your enemy's cover by leaving them with less than 3 brick tall ruins!

Resolving Damage.

For each point of damage a frame takes, it loses one of its systems. The owner chooses which system it loses. Pop off a representative part of the frame and drop it on the field. Since that system is gone, it doesn't provide its die or dice in any future turns. If it has no systems left, it loses one of its white dice. Once both whites are gone, the frame is destroyed.

If the frame is within 1 unit range of a station, its owner can choose to have it ignore 1 damage and instead abandon its position, moving the mobile frame 1 unit away from the station, out of contesting range.

Hint:

Taking damage doesn't affect the dice you've already rolled unless the frame is destroyed. They're yours to use until the end of this mobile frame's turn.

When a frame is destroyed, the owner loses points accordingly – recalculate the score.

Example Attack.

One of Joshua's frames is coming under attack by ranged fire. It has already been spotted by one Sebastian's frames and now one of Vincent's frames is firing. Luckily, it is in cover.

- Joshua's defense: 5
- Vincent's attack: 3
- Sebastian's spot: 5
- $3 + 5 - 5 = 3$ hits.
- Vincent rolls 1, 4, 5 for damage.
- The 1 has no effect, the 4 and 5 deal damage.
- The 4 is resolved first, damaging the cover.
- Vincent removes 6 bricks, removing the cover.
- The 5 damages Joshua's frame.
- Joshua decides to lose 1 defense system.

Doomsday Clock.

At the beginning of a game, put down the d12 or d20 and set it to 11. This is the doomsday clock. At the end of every round, the doomsday clock counts down by one.

In order from highest current score to lowest, each player chooses to count down the DDC by 1 or to pass. When the DDC reaches 0, the battle ends, and the player with the highest score wins.

While ties are possible, but unlikely, resolve them by either going one more turn or counting who has the most assets left.

Hint:

Whoever has the highest score will want to advance the DDC, whoever has a lower score will not.

Principle of judgment calls.

Sometimes, situations are unclear. In that case, favor the better outcome.

In detail:

- Defense: If it's a close call consider the defender to be in cover.
- Moving: If it's a close call allow the mobile frame to move to that position.
- Attack & Spot: If it's a close call consider the target to be in range.

In general, try to favor positive results that produce action. Make things happen!

4. Alternative Rules

Split-range weapons.

With everyone's approval, you can declare your weapon systems to be split-range. For purposes of building your frames, a split weapon counts as two half-systems, one of each type. A split hand to hand/ direct weapon counts as half a hand to hand weapon system and half a direct fire weapon system, for instance. You still aren't allowed to have more than 2 systems of each type.

Examples: A split-range pistol might add one red die at direct fire and one red die at hand to hand. A split-range scoped assault rifle might add one red die at direct fire range and one red die at artillery range.

Hint:

While this rule is quite commonly used with MFZ players, keep in mind: You sacrifice reliability for flexibility.

Single-Shot Rockets: More or less.

Every company must carry the same number of single-shot rockets. By default, every company has three. Before you create your companies, you can agree as a group to some other number. Fewer, down to zero, will make the battle closer and harder-fought, with the attacker at the disadvantage. More, up to say six or eight, will make the battle bloodier and

more uncertain, with the attackers at the advantage - more rockets, more carnage!

Climbing, elevation & falling.

Before you field your companies, you can agree as a group to allow climbing. Mobile frames can gain benefit from climbing onto structures if they're at least 6 bricks high and at least 4 studs in area. When a mobile frame moves, climbing up or down 6 bricks' height counts the same as moving 1 ruler unit horizontally.

Hint:

Of course you need terrain to use this optional rule. Build several pieces that provide elevation.

To climb, a mobile frame has to have at least one appropriate movement system. A mobile frame with no movement systems can climb stairs or a ladder, if it's built into the structure.

A higher mobile frame is in cover to all lower mobile frames. A lower mobile frame is out of cover to any higher mobile frames, unless it's under a roof. Mobile frames at the same elevation determine cover normally. Don't consider elevation differences less than 6 bricks.

If a mobile frame falls – for instance if the structure it stood on is destroyed – it could take damage. Roll 1 damage die for

every 3 bricks' height the frame fell, and use the damage chart for hand to hand attacks.

Hazardous terrain & protection.

Before you create your companies, you can agree as a group to include hazardous terrain in your upcoming battlefield. When you build your frames, you can give them an appropriate environmental system.

It counts against your limit of 4 systems per mobile frame. In order to function effectively in hostile terrain, a mobile frame needs the appropriate environmental system. Without it, when you roll dice reduce your white dies by one.

Examples: When fighting in the vacuum of space on a ship's hull, a frame might need magnetized soles. When wading through a swamp with irritating gases, a sealed air system is important. Whilst in subzero conditions, a thermal unit would be advisable.

Per-frame initiative.

With this optional rule, every frame has their own initiative. If a frame has less than four systems, roll 2d20. If it has four systems, roll 1d20. Leave the dice as markers next to the frames.

When a round starts, tactical order starts with the frame that has the lowest number, and goes through the sequence, up to 20. If a frame has 2d20, you can pick which one to use as soon as your lower number comes up. Once chosen, the initiative remains for the duration of the game. Alternatively, roll again for every new round for even more chaos and unpredictable outcomes.

Hint:

While this adds considerable amount of time to a round, it opens up for a more varied playing field and tactical options. Keep in mind, though, this favors attackers, that normally have the lowest initiatives.

Dropping Whites for damage.

If one of your frames takes damage, you may want to drop a White instead of a system – either because you do not want to lose your last weapon or foresee that you get more use out of the special effect of that system being present over the versatility of the White.

Keep in mind that you cannot drop your last White, though – a frame will still be destroyed when all Whites are gone.