

Kernel 1.7 preview

Momentum Dice

Momentum Dice are special dice that are earned through daring play and can be used for fast, decisive action without tapping into your resources.

Whenever you do something that is **Exceptionally Brave** or **Clever** or if you use your Weapon Systems to **Exploit an Enemy Weakness**, creating an opening too good to Pass Up, the Game Director may reward you with a **Momentum Die**. **Momentum Dice** are dice that can be spent in any manner a die normally can with a few differences. Firstly a Momentum Die **Does Not Take Up a Spot in your Tank**. However, you are limited to **One Momentum Die at Any Given Time**. To help capitalize on your momentum, a Momentum Die **Does Not Use up your Action for the Turn** (attacking, working, repositioning, etc.) when it is spent. Additionally an Action performed this way can be performed **Anytime in Turn Order**, even during other players' turns or the turns of threats. If you would use a Momentum die to perform an Action on an ally player's turn you must get permission to go before them. **Momentum Dice are Removed from your Tank at the end of the Encounter.**

When you receive a Momentum Die from the Game Director may grant it in a few different ways. You may receive it with an assigned value or you may roll for it. When rolling for Momentum you may be told to roll multiple dice if your action was especially inspired, taking the highest result when doing so. By default if you roll for Momentum **Roll Two Dice and Take the Higher.**

If you would ever receive a momentum die while you already have one you may either replace the previous die or keep it.

You are not limited to taking advantage of Momentum for yourself. When a player receives a Momentum Die they may choose to give it to another player in the same encounter as them. To give another player a Momentum Die they must logically be able to take advantage of the situation. *(for example if your attack creates an opening you cannot give your Momentum Die to a pilot who is unconscious).*

Your Game Director is at their own discretion when rewarding Momentum Dice. They likely will not give Momentum Dice for performing similar feats or creating predictable openings. Tactical Attacks will only be rewarded when the logic of the exploit comes across, narratively describing the way your attack uses a Weapon System to create a moment of advantage. For example if you have a Heat Ray on your Rig and you tell the Game Director your attack aims for an exposed fuel canister on your enemy, the Game Director may reward you with a Momentum Die for the explosive opening you create.

Scene Size & Zone Mapping

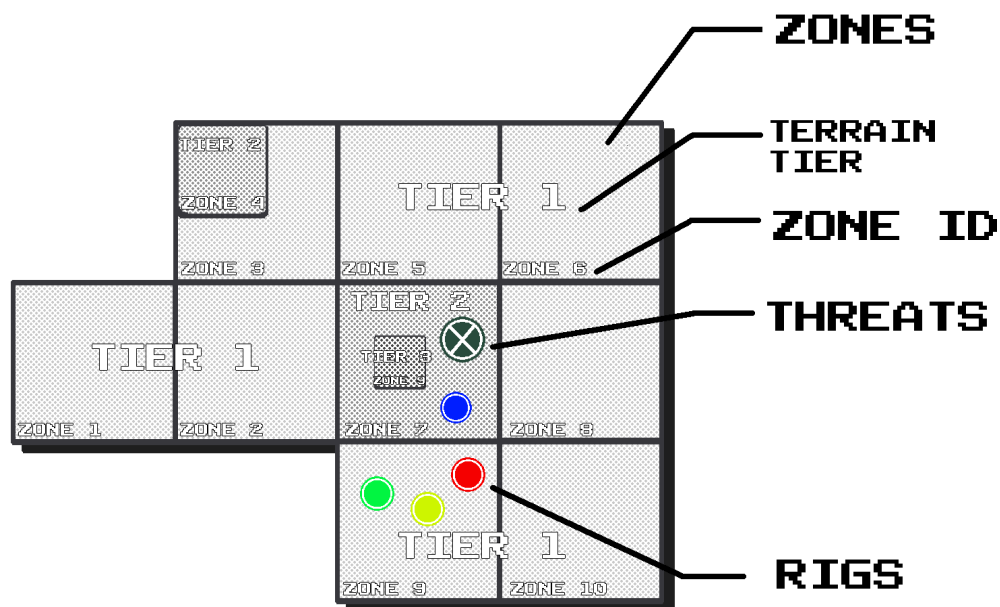
Kernel is a game that can often require tactical positioning though it should never become so granular that you'd want for a playgrid. The important questions you should be asking when considering positioning are: ***Is this close to me? Does it take resources to move there? Does this position give me a tactical advantage?***

For the most part anything within your scene is fair game for targeting, if you can't imagine a view of the battlefield that encompasses both you and your target they're probably too far away. Otherwise they're in position for you to attack, work on, or move up to.

But oftentimes missions or battles may occur on a larger scale than just you, an opponent, and the battlefield. Kernel relies on balancing various different resources and openings for exciting play. To create an interconnected play space with various angles of attack we recommend a process called **Zone Mapping**.

Zone Mapping does not get into discrete, granular distances but instead presents various adjacent scenes divided into zones with situational divisions for things like obstacles or terrain with higher Tiers. You might not need a Zone Map for every encounter, but for more complex encounters you may want to create a zone map with information presented by the Game Director. For very large scenes the Game Director may have a Zone Map prepared ahead of time.

For the most part Zone Mapping will give you all the information you need, if you're in the same zone as a threat you can act against it, if you're in a zone you can move around within it freely, if you're adjacent to a zone you can move into it or **Reposition** to cross it. If a zone has a Terrain Tier higher than your Mobility you will also need to **Reposition** onto it.



(Pictured Above: A zone map made of several conjoining squares. There is an elevated Tier 2 area in the center to divide the regions of the map. There are several rigs in zone 9 and one threat and a rig in zone 7. This zone map would cover a fairly large area.)

This is an example of a zone map you might create when using this process. There are ten zones so the area this map takes up is fairly extensive, a complex mission could take place here. Your zone likely may not look like this but this example was made with discernible details for the sake of explanation.

Each zone here has a tier. The lightly shaded areas around the outer edge are Tier 1 to show they're flat and easy to get around. The central zone is tier 2, possibly a wall or tree that would need to be climbed to traverse. In the midst of this zone is a tactical position that is described as Tier 3, possibly a branch or perilous structure that only a daring leap or flying engine could reach. If you were to move to this point you would have a great view of the surrounding area and might be safe from foes restricted to the ground.

The zones shown here also have numbers to identify them. This is an entirely optional detail, but it may help your players communicate their intent quickly if high numbers of zones are present. We'll use these to describe how this map can best be used.

In the example above there are several rigs in zone 9 and one rig facing a threat in zone 7. Zone 7 is Tier 2 so moving into it will require having Mobility level 2 or to spend a die of 2 or more to Reposition.

The size of a zone is the logical size of a scene for a bunch of rigs to partake in their adventurous fare. Think of a small battlefield or district of a town. With little effort your Rig will be able to move around within it quickly, traversing outside these areas will take more time. For ease of understanding regular movement can move a Rig into an adjacent zone at a position that is conveniently available. For example a Rig with mobility level 1 in zone 9 (shown above) could perform regular movement into zone 8 or zone 10. Repositioning is fast enough you could either move through an adjacent zone or to a tactical position in an adjacent zone. The same rig described earlier could Reposition to zone 5 by spending a die of 2 or more to cross zone 7 or spend a die of 3 or more to reposition to the Tier 3 position inside zone 7.

These spaces however should not be taken as harsh restrictions for interaction. Should the rig in zone 7 find a way to move or lead the Threat closer to the border of the two zones, its entirely feasible weapon systems could act on them uninhibited. It's important to remember that while a zone map may help you think about positioning, **scene details always trump map details**. This means the narrative and the Game Director's description of the scene will always take priority.

Community Oversight Rehaul

Once players are back at Camp your focus should be continuing the storylines established here and how the players have impacted the community. Players should have friends, loved ones, and rivals in their Community and you'll probably be playing all of them, think of what these people want or need from the player, decide how urgent it is for them, and live their lives as someone who can't get it from anyone else but the player. Since players are responsible for feeding the community and paying debts you'll need to think about what happens when they do this successfully or unsuccessfully. If players are ahead on debts and feeding the town the community will prosper and grow, this will likely lead to increased difficulty as the need for food grows. If a community is thriving others may want to move there with less than ideal motives, companies may move into town and strongarm out the weaker inhabitants for good farmland, resources, or local tech installations.

To convey these responsibilities and the rewards of addressing them the Game Director can create **Undertakings**. These are long term goals the community is trying to reach towards and the benefits of completing them (or the cost of ignoring them) are decided by the Game Director. Undertakings are communal responsibilities, they are mostly completed by the workers of the town. To help those workers they will need investments of **Food and Fuel**.

The interface is divided into three main sections:

- COMMUNITY**: Contains a 'Name:' label with a text input field, a 'Notes' label with a larger text area, and a greyed-out rectangular area below the notes.
- UNDERTAKINGS**: Contains four empty rectangular boxes arranged in a 2x2 grid, each with a horizontal line near the top, intended for listing community goals.
- GEOGRAPHIC MAP**: A large grid area at the bottom of the interface, intended for mapping the community's layout.

Each Undertaking has a **Level**, in order to resolve an Undertaking the players will need to **Mark** that Undertaking a number of times equal to its Level. Marking Undertakings can be usually be done two ways:

- Turning in a **Kernel Cargo** upon returning from a Mission.
- Passing a **Pilot Check** while at camp.

To Mark an Undertaking with Kernel Cargo you must choose to convert the Cargo into a Mark before you convert it into Kernels. Thereby forfeiting the resources you would've gained for the sake of the community.

Marking with a Pilot Check is something each character can only do once a day while at camp and only if they haven't done any other serious camp activity during that time. (such as starting a new Undertaking). In order for a Pilot to Mark an Undertaking this way it must be an Undertaking your character could logically help with, such as offering manual labor or expertise. If the Game Director thinks Marking with a Pilot Check makes logical sense, perform the Check as follows: Roll a d6, subtract 1 if you have any Quirks that would hinder your ability to help with the undertaking, then add 1 if you have any Quirks that would help. If the total for the roll is 4 or greater you succeed the Pilot Check and Mark the Undertaking.

Undertakings are fully designed by the Game Director. What their purpose is, their level, and their secondary effects are decided fully by the narrative the Game Director decides for them. The level of an Undertaking is the level of difficulty and time it takes to complete, here are examples of Levels and their significance for creating Undertakings as the Game Director:

- **Level 3 - Very easy.** This is a relatively insignificant side project.
- **Level 4 - Easy.** This is something the town could usually do on its own given time but will need help with materials and other resources.
- **Level 5 - Standard.** This is most Undertakings the Game Director will give you the responsibility of. The town will have difficulty completing them without the help of pilots.
- **Level 7 - Challenging.** This is a longer Undertaking that will take multiple sessions of committed gathering to complete.
- **Level 10 - Campaign Challenge.** This is an Undertaking that will define the campaign in terms of pressure and reward. A standard campaign will likely see only one or two, with big benefits to the community if they are resolved.

Undertakings will usually either be problems the community needs to resolve that have **Negative** effect while present or projects they aim to complete with **Positive** benefits once they are resolved. To help the Game Director decide on what Undertakings to give the community here are some contextual examples and what their benefits or detractors can be.

Positive	Negative
Favor - Work done for a company such as running an expo or quartering researchers.	Food Shortage - Provides food to help keep the community fed. While this Undertaking

When completed all pilots will receive some Design credits toward their clearance with that company.	is affecting the community, spirits in town will be low and npc's may leave in search of food.
Construction - Building an improvement for the community. Offers narrative benefits based on what was built.	Sickness - The community needs materials for medicine and resources for doctors to distribute them. While this Undertaking is in play, completing other Undertakings is more difficult (-1 to Pilot Checks to Mark Undertakings) and npc's may be susceptible to health problems or death.
Recycle - Puts the community to recycling available materials, cleaning up waste in the process. When completed can offer Minerals or discounted Upgrades to the players.	Repairs - Damage to the community needs to be repaired. While this Undertaking is on the board some basic amenities of the community may not be available.
Mobilize - Prepares an auxiliary force to take on a mission in the game world. Launches a special mission once the Undertaking is completed.	Weather - Harsh weather has caused damage to the surrounding area and displacing locals. While this Undertaking is in play citizens will be displaced and many community centers will become inhospitable.
Ceremony - The community organizes a ceremony to raise the spirits of locals. May help with discontent garnered from Negative Undertakings.	Security - The town needs defending, security personnel require resources and unwelcome access to the community. While this Undertaking is in play, security forces may seize resources they need by force or be unprepared to deal with attacks, leading to harm to the community.

Not all Undertakings can be addressed in the same way as others. When creating an Undertaking the Game Director may assign it a **Tag** to change the way it behaves. These are contextual and the Game Director can adjust them or create more as they please. Here is a list of premade Tags that can be used:

- **Build** - This Undertaking can also be Marked by offering up a Mineral Cargo.
- **Specialist** - This Undertaking can not be Marked by Pilot Checks unless the Pilot has training specific to the task at hand.
- **Experimental** - This Undertaking can also be Marked by offering up a Design Cargo.
- **Bribe** - Money can also make this problem go away. When making a Pilot Check to Mark this Undertaking you can spend Minerals to increase your roll by the amount spent.
- **Illegal** - This undertaking goes against one or more of the community's laws. Resources suspected of going towards its completion may be seized and failed Pilot Checks to contribute may result in jail time or fines to pay. A pilot check can usually get you past law enforcement.

- **Charity** - This undertaking is done for the goodness of others and as a result has very good optics for contributing and very little recourse if ignored.

For balance of gameplay and resource drain it is highly encouraged to have at least one Undertaking active in your community at a time. Should players complete Undertakings in a timely manner you may want to reward them with periods of time with no negative Undertakings present, allowing them to capitalize on low resource demand to build up their own stockpiles. During times like this, players may also want to start their own Undertaking, positive ones of course (hopefully). Once per Session while at Camp a player may choose to spend their time starting a new Undertaking for something they want to do or add to the community, creating an Undertaking of their choice as agreed upon by the Game Director. The player narrates what they want the Undertaking to accomplish and the Game Director decides level and mechanical implementation. When a player begins an Undertaking this way they won't have time to contribute to other Undertakings that day

To decide when to start a new Undertakings refer to openings or consequences in the narrative. If something bad has happened to the community, respond by creating a relevant Undertaking. If the town hasn't had anything bad happen to it in a while, it's probably due.

If the players fail to regularly feed the community or pay their debts the community will falter and shrink, people may move away or die as a result of not having their needs met. If players only partially meet their goals, decide how this leads to complications. If players don't bring back enough food the locals may go to another Pilot or a Military Company, one that's more reliable than yours, creating unwelcome competition in town. Perhaps your unpaid debts lead to bounties or forced labor, you may need to take riskier jobs or deal with bounty hunters ambushing you on expeditions. If the community is damaged by a storm, animal attack, or structural failure players can start an Undertaking in an attempt to fix it. If players ignore these problems, they should face narrative consequences.

Luxuries

During Expeditions the Game Director may choose to offer the players a chance to pick up **Luxury Cargo**. Luxuries are items that improve (either tangibly or cosmetically) the daily lives of people in your community and can be traded with other communities for resources. Luxury Cargo behaves much like normal cargo but instead of being converted into a resource upon returning to camp it instantly **Marks an Undertaking Twice**. It will be up to the Game Director to decide what Luxuries (if any) work for the community and when to deploy them. Luxuries are usually rare, however if the players learn where to find them they can be sought out. Examples of Luxuries include rare spices, dyes, gems, drugs, and ceremonial materials.

Directing the Community

The Undertaking system is designed to allow Game Directors to run communities smoothly. However, there are various approaches to community management you can explore. The intent of Undertakings is to make the community interesting and feel dependent on the players so however you as the Game Director can achieve that is fair game.

If you want to put pressure on players to act quickly you can start **Clocks** along with Undertakings, these will advance by one at the end of each session and you may choose to obfuscate them to players or not. Clocks can also advance from contextual events, such as when players do something that pushes them forward. When you create a Clock, give it a value, after it reaches this value unleash the consequences on the player. These are contextual and will vary based on the Undertaking.

Examples: *If the town is going hungry you might start a clock of 7 to give players a week to feed the people. If this clock completes, people will leave the town.*

If a company is putting pressure on the players to pay back debt, start a Clock equal to the time they give the players. If this clock completes some of their resources or upgrades might be seized. If the players do anything to upset the company further they may advance the Clock once early.

Undertakings are also not set in stone. If the story changes the context around an Undertaking its properties are liable to change. This can be as simple as increasing or decreasing the level of an Undertaking or changing the goal of an undertaking entirely. As the Game Director you have the final say of the community and what goes on there so feel free to try various different approaches.

Examples: *If the community has an Undertaking to finish a construction project, harsh weather may increase the level of the Undertaking by 1.*

If the community has an Undertaking to perform the ceremony for an illegal religious observation and it gets uncovered by law enforcement the Undertaking may change from hosting the event to rescuing the people who were hosting it.

If the community has an Undertaking to farm a newly discovered strain of plant and then discovers the plant releases poisonous spores the Undertaking may change from harvesting the plants to clearing them out.

Community Endgame

Over the course of your various expeditions and community improvements you will eventually get to a point where either your pilots or your community have little to no potential for further improvement. These progression paths may be at odds with each other, settling a score with a nemesis or raking in tons of upgrades and accolades for your Rig will usually

come at the cost of improving your community. While this is a valid choice to make as a player, the collective intent of a group of players should be to improve the community, otherwise you won't be treated as a core community pillar but rather as brigands and freeloaders.

The main way to move your community to an end state is to complete Undertakings that improve the quality of life in the community. These may be Undertakings your Game Director sets out for you or ones you start while at camp.

So what will it look like when it's time to retire a community? This will likely be the end of a campaign for most players so you'll want to think about the sort of future you're leaving for it. There are a couple ways to reach a community endstate, here are a few examples;

- **Self Sufficient:** The pilots have put in the hard work to build farms, factories, refineries, and other production sites that will last for generations to come. The community needs very little help from Pilots to keep itself running and our team of pilots can retire as heroes.
- **Succession:** The work isn't done, but it's a start. Your pilots have given all they can for their people. The choice is now either retire or work yourself to death, a new team of pilots will inherit this responsibility and keep the town going.
- **Abandoned:** It's far from ideal, but things cannot be sustained forever. The Community has been struggling for a long period of time, discontent has been mounting, and the people who should be helping are distracted by their own wishes. There aren't any people to help anymore and your pilots either leave with them or are left behind.

If the end of your community (or the ties your Pilots have with it) is also the end of your Campaign you should take some time to talk about what its future is like. In a roundtable manner, make up stories about what happens to the community, play characters like usual roleplaying, and feel free to leave seeds for a future visit to that community someday.

Philosophy of Small

It is one of the foundational truths of Kernel that you are small and your Rig is slightly bigger. This can be achieved in the narrative by being a small person in a regular sized world or a regular sized person in a big world. Relative scale is key. The intent of making players and Game Directors think smaller is to make scale feel more tangible. The reality of you as the person reading this is you are a small person in a huge world where obstacles seem massive and impossible to navigate, there are huge cliffs, oceans, and mountains in this world. To create a feeling of desperation equivalent to obstacles like these, you must think smaller. By thinking smaller, your understanding of yourself becomes more like the reality of your situation.

Why would I inspire this variety of size humility? At its core, Kernel, despite its wonderful machines and world of science fiction, is still disempowering. Hauling the resources humanity needs to survive is a hard job, it's something we've always had to do, and my hope is by giving you a fantastic scenario and that little push of strength you will find the ingenuity required to get through it. Your Rig constantly wants things from you. It wants your food to run its batteries, it wants you to allocate its resources, no matter how you build it it can't excel at

everything. My hope is that those moments where you realize you can't do it all will sting, perhaps even inspire terror, but ingenuity may still get you home by the end of the day. Remember this; victory is not guaranteed, you are smaller than an insect, survival should be more than enough for you.