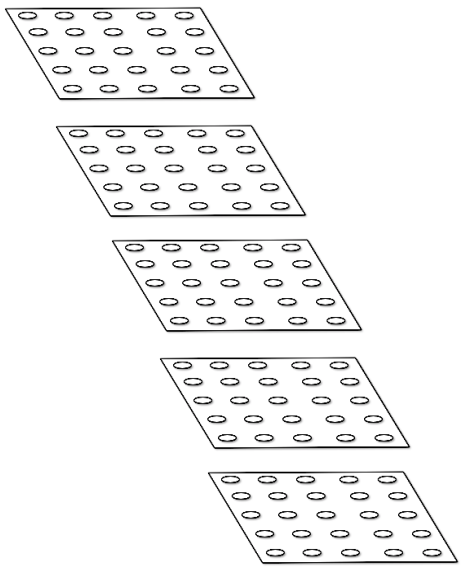
YAVOCH!

Planet Earth Alliance Classic Edition

Official Manual and General Reference



Ron L. Toms, RLT Industries, 2019, Earth

Second Edition

For more information, please visit our website at
www.Yavoch.com

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Introduction

The game you received should have some extra pieces. We included two different styles for the command ship so you can choose whichever style you prefer. We like to use a different style for each player. We also included some extras for each of the other type of ships too. These will be useful when using the "cloning" and "evolution" weapons.

We've tried to make the rules as logically consistent as possible. They were designed to be similar to Chess, but not identical. Read the philosophical notes to understand the logic behind some of the differences. The rules and the playing field will become familiar and easy to follow very quickly as you play the game.

The lines etched into the boards have a purpose. They were carefully developed to make movements in the two types of vertical columns as easy as possible to follow and to minimize the likelihood for error, just as the black and white squares on a chessboard were introduced centuries ago to make the diagonals easier to follow and reduce errors.

The rules for Yavoch are the result of over two years of research and development. We began by looking into the existing 3-D variations of chess and other strategy games and then compared their criticisms and praises. We analyzed them and compared those results to our analysis of conventional chess. We studied the fifteen-hundred year history of Chess and how it came to its current incarnation. We re-created, experimented with, and played many of its ancient variations, including versions played with dice, different sizes and shapes of boards, a multitude of variations and complexities to the movement strategies for each piece, many more kinds of pieces — elephants, chariots, cannons, unicorns, etc., and more ways for those pieces to move than most people would ever guess existed.

According to legend, Chess was originally developed by Buddhist monks as a non-violent substitute for war. It was intended as a way for military leaders to determine who had the superior strategy, training, planning, determination and luck without having to actually kill people in battle. As you might have guessed, things didn't work out that way. Still, the idea of a war simulation inspired much of the logic behind Yavoch as a space battle game.

As we explored the evolution of chess we began to realize something. The changes that survived the test of time always seemed follow a general pattern. We extrapolated from this discovery and took the next steps. We refined our new rules through further

analysis, countless iterations and trial and error, until we came up with a whole new game, the next evolution of strategy games we call Yavoch!

But we didn't stop there. A lot of the ancient versions of Chess had features we enjoyed but that had been lost or forgotten as the game migrated across cultures and through the years. We decided to resurrect and update some of our favorite ideas for our modern game.

For example: the earliest versions of Chess were almost always played with dice. We don't have a full and complete explanation of those ancient rules, but it was important enough to the game that the dice version existed for more than 500 years. We do know that sometimes the dice influenced which pieces a player could move and the range of that motion. We created our own dice rules to add risk elements to the game.

Many ancient games had much larger playing fields than the standard 8 x 8 square board of today. There were round boards, rectangular boards and split boards with a "river" running between them. Some boards were eight by ten squares, ten by ten and up to thirteen by thirteen squares. To fill the larger Chess boards, additional pieces were created with even more diversity and complexity of movements. Some versions were played from the corners of the board rather than the edges. Still others had ways to promote or swap one piece for another and ways to capture pieces without actually occupying their position. We inventoried all these rules, learned from them and created new variations where we felt they enhanced the game. These were the basis for our secret weapons.

For instance, in some versions of ancient chess the kings were not allowed to "see" each other. Their view of each other across the board had to be blocked by other pieces. If a player unblocked the view, his king would immediately die from the experience, ending the game. This concept inspired our Particle Beam weapon.

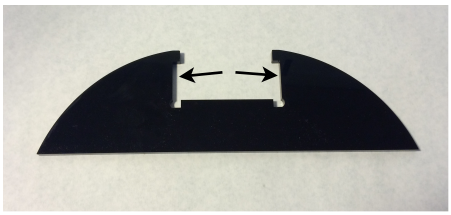
Ultimately, the real reason we created this game is simple: we wanted a new kind of 3D game that was fresh, challenging and fun. There are many variations of 3D chess out there, but they all try to keep the rules as close to the 2D game as possible. A 3D game needs more consideration than just dropping the old rules for chess onto a volumized playing field. It took a lot of iterations and late night brainstorming until we finally developed a playing experience we are happy with. We hope you will enjoy it as much as we do.

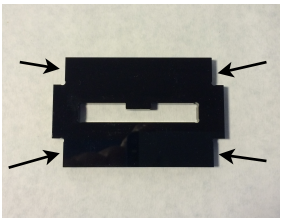
Have fun and play well!

Assembling the Playing Field

If this will be a permanent assembly (highly recommended), use the Glue Dots to hold the edges together. One dot on all joining edges will make it a more stable structure. If you want to take your game apart for portability or storage, skip the glue dots.

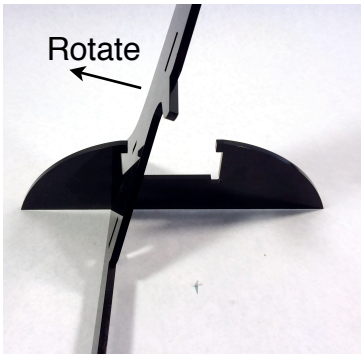
Place Glue Dots at these locations:

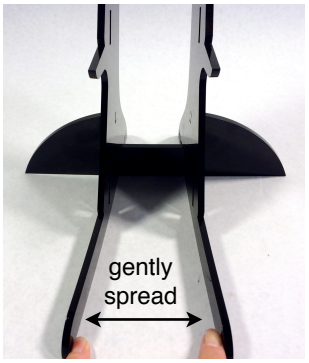




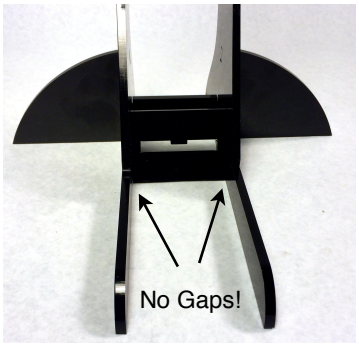
If your pieces seem like a tight fit, don't despair. The thickness of acrylic can vary by as much as +/-10%. We've sized the slots to accommodate this variance as much as possible. The harder it is to assemble, the more sturdy it will be. If yours is difficult to assemble, count yourself lucky. You will have a sturdier game field. Just be patient, align the pieces as well as you can, and *gently* wiggle them into place. **Do not** try to force the pieces together or they may break. Gently wiggling with light, steady pressure is the key.

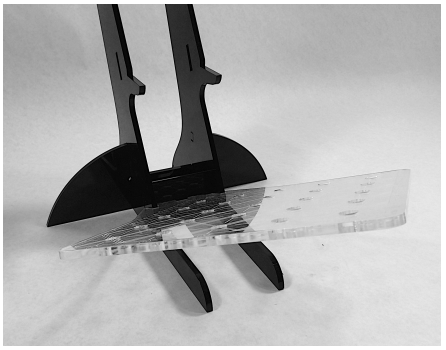
Start with the half-moon shaped base piece. Insert one side of the support tower into the corner notch and rotate it until the tab slides into the hole. Do the same with the other side of the support tower. Make sure the YAVOCH name is displayed correctly at the bottom of each piece. If you see reversed letters, swap the pieces.

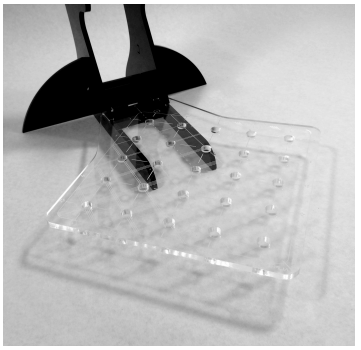




Once this is done, spread the feet apart in front and insert one of the five rectangular cross-braces into the bottom slots so that the tooth is on top. Squeeze the uprights together so there are no gaps between the brace and the tower (more photos next page)

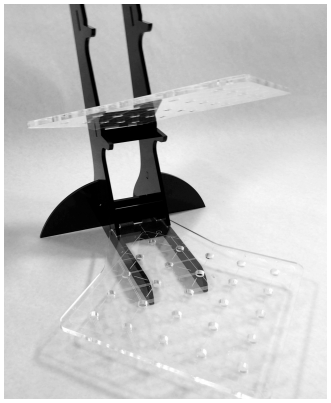


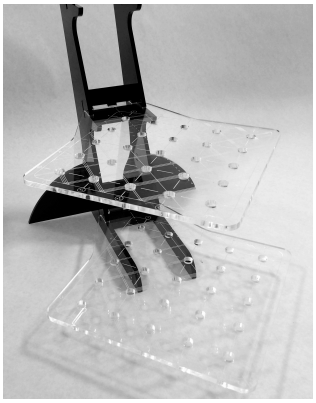


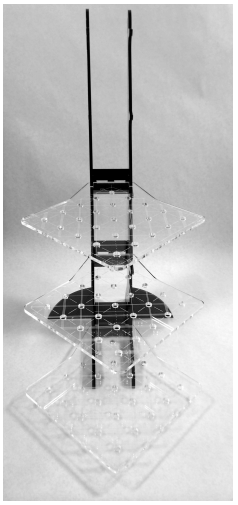


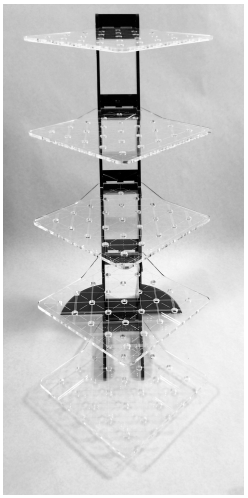
Insert game deck ONE (it has a single circle near the rectangular slot) into the cross-brace until the rectangular hole on the board is aligned with the tooth. Gently rotate the game board down so the tooth goes into the hole. **IMPORTANT!** Do not force the game board or you will break it! Sometimes the board can seem like it won't fit. If so, you may need to squeeze the uprights together near the brace. Once the board is all the way into the slots and the tooth is aligned with the hole, press down at the base of the board to lower it onto the feet.

Repeat these steps for decks two through five working up from the bottom.
The small circles near the rectangular slot indicate the deck number.









Care and Handling

We've tried to design the game stand to be an artistic structure, an elegant conversation piece to display in your home just as you would a fancy chess set. With a little care, your Yavoch! game will remain beautiful for many years to come.

Here are a few suggestions for keeping your Yavoch! game looking shiny and new.

Acrylic: To remove fingerprints and dust, use a soft clean dry cloth. DO NOT use any polish, wax or window cleaners on any acrylic surfaces. For tougher spots, use a mild soap and water. Never, never, never use any harsh detergents or abrasives.

Keep away from open flames such as fireplaces or furnaces. Acrylic is highly flammable and will burn if ignited.

Acrylic is typically stronger than glass, but it is still breakable. If you drop it on a hard surface, it can shatter. If you bend it too much, it may break. If either of these things happen to your game, replacement parts are available on our web site.

YAVOCH!

"Yavoch!" cried captain Decker, "The game is afoot. The time has come for war."

The year is 2319, Earth forces have prepared for battle against the Ainur, a warrior species who control more than a dozen inhabited planets across the galaxy.

We didn't want this war, but we chose to have it. Seven years ago we received our first contact from the Ainur. It was a short message and devastatingly to the point:

"To all the people of Earth, you know us as the Ainur. It is our destiny and our right to conquer all inferior species in the galaxy. We claim this right as a law of nature. Just as all stronger species everywhere consume and exploit the weaker ones in every eco-system on every planet, so shall we among all the inhabitants of our galaxy.

"But we are a species with honor. This message is fair warning so you have time to prepare. You have two choices: Accept your fate and take your place as our servants, or try to escape and be hunted as our prey. You may try to escape if you wish, but understand this— we love a fair game, and we will gladly hunt you down for our amusement. You have one Earth year to reply."

Of course, we immediately began our research. We soon learned the Ainur are notoriously brutal and swift in their conquests. They invade and control every world they encounter with devastating force. Our hopes for a peaceful solution were crushed like the delicate petals of daisies under the footsteps of a thousand marching stormtroopers. But we crushed those flowers willingly, because these are our stormtroopers, preparing to defend our way of life, our liberty, and our freedom.

We also learned that the Ainur value honor above all else. Like all advanced warrior species in the galaxy, honor is the only thing that keeps them from destroying each other. Honor keeps their culture stable. Honor is their currency, the first commandment of their religion, their primary civic duty. We knew we had only one chance to keep them

away from our home world. They say they love a fair game, so we made a bold move: We challenged them to a duel of honor.

Our response to the Ainur was this, “To the people of Ainur, we too are a warrior species. In our culture we value both honor and liberty more than life itself. We are prepared to fight to the death to protect our independence. You claim to be superior, but size is only one quality to measure, and it is not very convincing. How cunning are you? How good is your strategy? We assert that our species is superior in these qualities, and If you assimilate us through force, we will defeat you from within.

“But we will give you an opportunity to avoid that fate or prove us wrong. We challenge the Ainur to a single battle of equal forces to test each other’s skill. If we lose this fight, we will be honorable and accept our fate as denizens of the Ainur. But if we win, the Ainur shall forever leave us in peace and never interfere with humanity, nor any of our intergalactic allies ever again.”

To our surprise, the Ainur accepted. It seems they rarely encounter a worthy challenger, and our bold move intrigued them.

The designated battlefield is a mysterious region of space between two distant super-massive black holes. Here, the clashing gravity waves have created an unusual kind of sheared space-time, fractured into layers. Among these layers we’ve plotted five navigable planes. To our dismay a field of astroids has polluted the center plane.

This asteroid field is strangely chaotic. The gravity waves vibrate subtly, but they are strong enough to make the asteroids collide and jostle with unpredictable direction and velocity. They jump and move without warning in potentially any direction. It will be impossible to map this field. Movement through the asteroids will be risky. We'll have to be on constant alert, but it's the only way for us to get to the enemy—and them to us.

The Ainur have insisted our fleets must be exactly matched. Apparently, they want this to be a balanced fight. It's the honorable thing to do of course. But they are unwilling to abandon their technologies. So, to make things even, they've given us some amazing new tools. Among these are the teleport gates, field-effect bombs and the hop-drive.

Each pair of teleport gates is connected by a kind of wormhole outside of normal space-time. We don't understand exactly how they work, but we understand how to use them. Go into one, instantly come out of the other no matter where it is or how far away. Unfortunately, we have to move them into place first, and this movement is restricted to ordinary space transit. In other words, it is slow to move the gate. But once in place, it's a quick way to move ships across vast distances.

The field effect bombs have an interesting feature; they disrupt all normal matter within a two-dimensional radius along the skewed planes of the battlefield. Anything in the blast zone that is surrounded by an encoded energy field is protected from the blast, like a tuned deflector shield. This makes it possible to set off a bomb among our own fleet. None of our ships will be affected, but anything else within range is completely and totally obliterated.

Unfortunately, the ship carrying the bomb cannot be protected this way. The ship itself is the bomb, and has to be free of any energy fields in order to detonate.

At first, the hop-drive was incomprehensible to us. Completely by accident one of our artificial intelligence experiments involving bird brains managed to activate it. They navigate in three-dimensional spaces over a two dimensional landscape—this means they can think in fractional dimensions between two and three, also known as fractals. Their brain patterns activate the hop drive and make it possible to move in two planes at once, traversing multiple vectors in multiple dimensions simultaneously to arrive at a single destination. It is impossible to block these movements.

This discovery inspired us to build more artificially intelligent ships based on other types of animal minds. It was our theory that these indigenous Earthly-based navigation styles would be unfamiliar to the Ainur, and therefore might improve our odds of defeating them. Our planet is full of life forms that live and move freely through environments which are difficult or nearly impossible for humans, so we leveraged their brain patterns to create several new classes of semi-autonomous ships.

From the minds of birds we built the Neornithes with the hop-drive.

A new class of ship called the Squam will make use of a hybrid reptilian mind based on tree lizards and snakes. Because of the complex realm of surfaces inhabited by these reptiles, we expected the Squamata to be our second fractal thinker able to use the hop-drive. But the Squam mind appears to be too weak to activate it.

Lastly, from creatures in the depths of the open ocean we built the Archids. We also thought the Archids might navigate somewhat like the birds. They did not. The complete lack of landmarks or surfaces of any kind in the mid-waters of the deep open ocean is a non-fractal, fully 3D realm, devoid even of sun, moon or stars for navigation. But the Architeuthidae were smarter than we realized. While they prefer to move in straight lines, the Archids are able move very fast and can slice through the gravity waves like no other ship can—like a fish through water.

We didn't leave out the insects, ever ready to protect the colony at all costs including their own demise. The insect creatures were the perfect choice of intelligence for the field-effect bombs. We named them the Trych.

The Trych move slowly, and when commanded to do so, they explode in a finely tuned disruption field that destroys only enemy ships, leaving nearby friendly ships unscathed and unharmed.

Unbeknownst to us, the Ainur had watched us develop these ships. They accused us of being without honor and threatened an immediate full-scale attack unless we shared our technologies with them. We had no choice but to give them our animal-brain based AI systems.

All of these ships are only semi-autonomous. Their artificial intelligences control how they move in space, but we Sapients—both human and Ainur—determine targets and strategies. We Sapients occupy the Command ships, one master ship on each side. Without the Command ship, all is lost.

Being the only manned ship, the Command ship is slow and necessarily large to accommodate all the life-support system, supplies and accommodations. Of course, since this is a battle situation, we anticipate damages. All systems are doubly redundant. This makes the Command ship far too large to fit through the teleport gates, and movement through the asteroid field between us and the Ainur is too risky. But as slow as we are, the Command ship is not lame in this fight. We are equipped with a particle beam cannon so powerful it can destroy whole planets in a single shot, but it also has immense energy requirements. Its use will be limited.

And with that, our best scientists and engineers constructed our fleet. Our strategists and tacticians trained furiously. The aliens gave us some amazing technologies. We intend to use them well. Our long range surveillance system has confirmed that they held true to their word. Their fleet and ours appear to have the same technology, same numbers and same capabilities. It looks like this will be a fair fight after all. Victory in this battle will be the result of superior strategy and decisive action, and maybe even a little bit of luck.

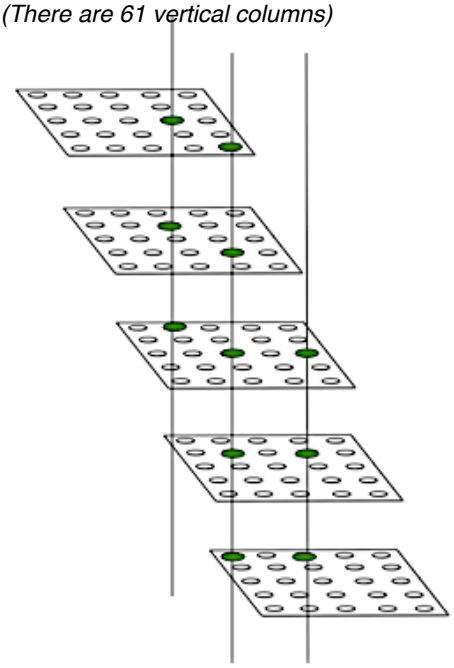
Captain Decker called out, “Attend to formation, activate automatons, prepare our moves. The enemy shall taste defeat today, and it is we who will feed it to them. Yavoch!"

Section One

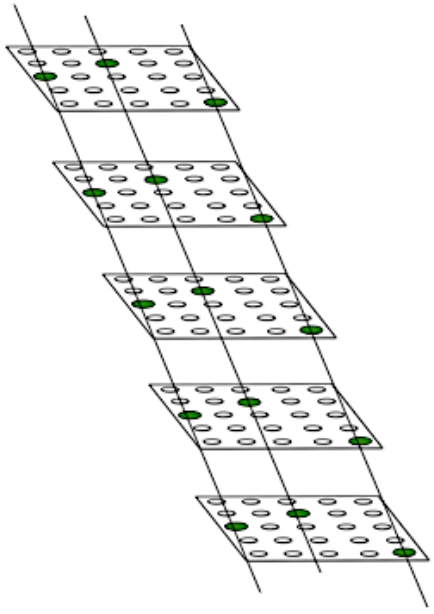
The Field

The Yavoch Game Field consists of five levels, each with a five by five matrix of positions. Each level is offset from the levels above and below it to create two distinct kinds of vertical: one strictly perpendicular, and one following the slant.

Examples of Vertical Columns
(There are 61 vertical columns)

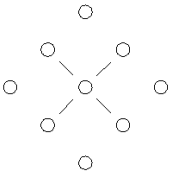


Examples of Slant Columns
(There are 25 slant columns)

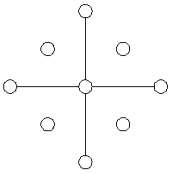


Adjacent positions on each level are a "short" jump or a "long" jump.

The **short jump direction** is indicated by short line segments, also called **short vectors**.
(Similar to Rank and File on a traditional chess board)

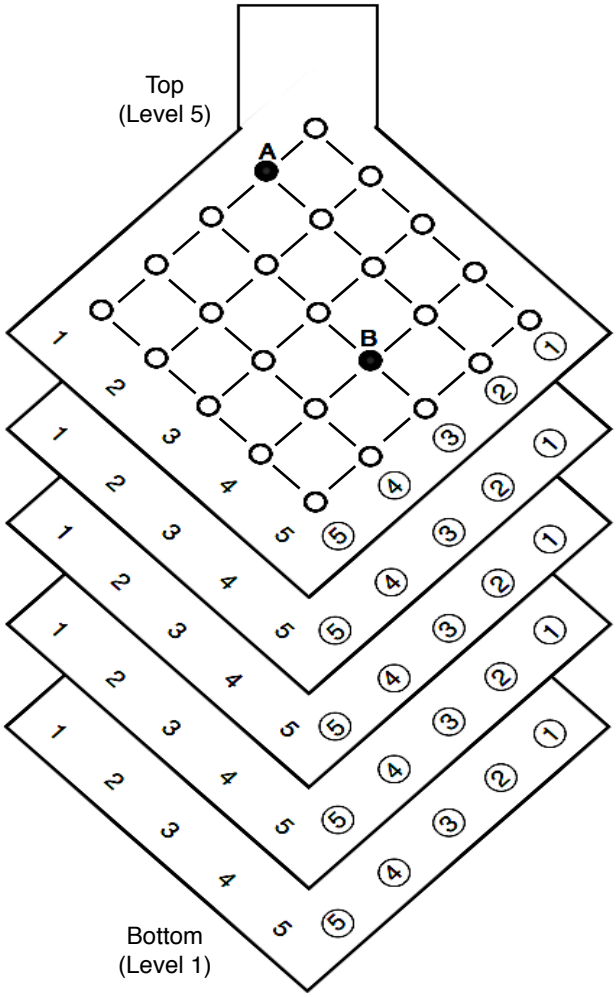


The **long jump direction** is indicated by striped lines that pass through the holes, also called **long vectors**.
(Similar to Diagonal on a traditional chess board)



MOVING VERTICALLY

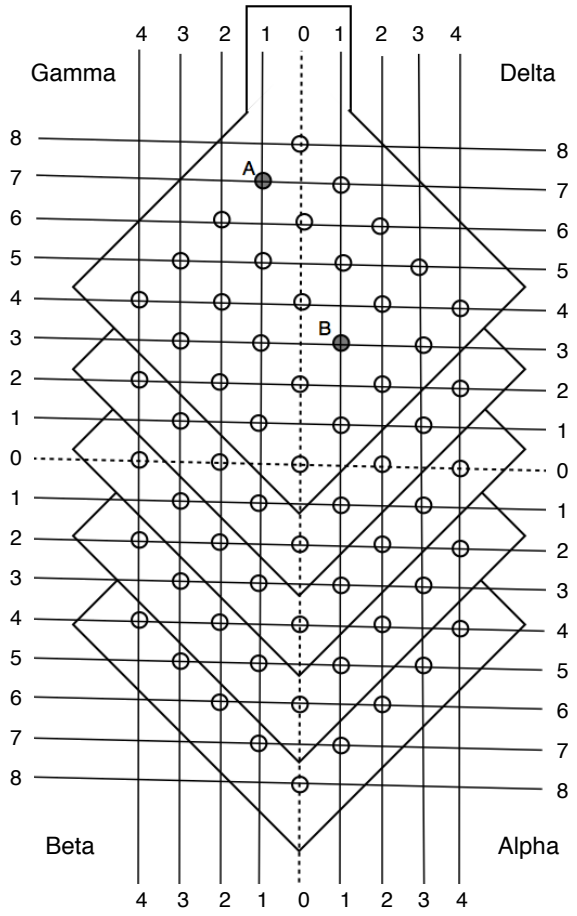
Following the slant is easy. Just make sure the "short vector" numbers stay the same on your new level. For instance, if you're at position 4,③ on one level and you want to move to another level, you should land on position 4,③ on that level too.



Moving Perpendicular requires a little more care. The striped diagonal lines are always consistent in the vertical column (See diagram below). When moving up or down a vertical column, just make sure you stay on the same number of stripes in both diagonal directions.

Vertical columns are divided into four quadrants: Alpha, Beta, Gamma and Delta. These will be explained later in these instructions.

The core: The dotted lines define the vertices of a three-dimensional coordinate system. Never mind the details, all positions on the dotted lines are known as *core* positions.

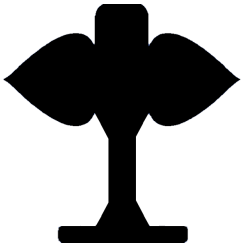


Section Two

The Ships

Our fleets consist of these ships and other components

TRYCH



The Trych carry our fleet's field-effect bombs. These devastating devices are slow and can only move one position at a time.

In play, the Trych can make one of three possible moves:

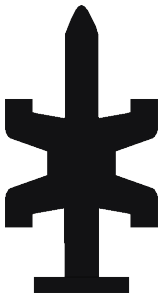
1. One position in any direction on either a short or a long vector within a single level.
2. Up or down one level in the perpendicual column. (The Trych do not move on the slant column)
3. Detonation without moving.

THE ATTACK **:**
The Trych may not take another ship's position, instead, they move adjacent to one or more enemy ships and detonate, or they can detonate where they stand without moving. The blast is a radial blast, destroying all enemy ships, teleport gates and mines that are adjacent to its position on both long and short vectors. The blast does not affect anything on other levels.

- All friendly ships in the blast zone are unaffected.
- A Trych can detonate while on a teleport gate. This destroys all enemy ships in the blast zone on that level only. There is no effect at the opposite gate. It does not affect your own gate.
- Detonating the Trych also destroys the Trych itself and removes it from play.

ENERGY **:**
The Trych tap the energy of the field effect bomb and do not require external energy units to move or to detonate, but they can carry one energy unit for the purpose of shuffling it to other ships.

SQUAM

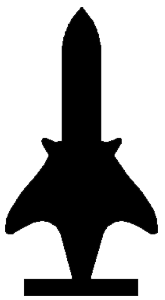


Moves any straight-line, unblocked distance on the long vectors
or up/down the perpendicular column.
(The Squam ***do not*** follow the slant column.)

NEORNITH

Each move includes two steps taken in any order (1,2 or 2,1). but you MUST take both steps and take each step only once in your move:
1. Move one position in any direction on either a short or a long vector within a single level.
2. Go up or down one level in the <u>perpendicular</u> column.
(This ship's movement **IS NOT** blocked by other ships in its path.)

ARCHID

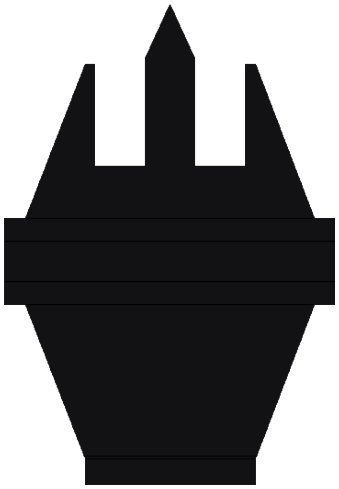


Moves any straight-line, unblocked distance on the short vectors
or up/down the slant column.
(The Archids ***do not*** follow the perpendicular column.)

THE ATTACK **:** These three ships attack an opponent by attempting to take its position.

ENERGY **:** These ships can survive without energy units, but they cannot move or use any weapons unless they have at least one energy unit on board. Each ship can hold up to five energy units at any time. These ships can also shuffle energy to and from other ships. See the rules pages for more information on shuffling energy.

COMMAND SHIP



Since this ship is manned by living beings, it moves only one position at a time to prevent inertial trauma on the occupants. It can move to any adjacent position on a level (long or short vector) OR up/down either the perpendicular column or the slant column one level.

The Command ship cannot go through a teleport gate due to its immense size, but can occupy a teleport gate's position without teleporting.

THE ATTACK **:** This ship destroys enemy ships by occupying their position.

The command ship also has a HEP CAT (High Energy Particle CAnnon Technology). This device can destroy any ship or mines, including the other Command Ship. It cannot destroy a teleport gate (the energy beam is teleported away).

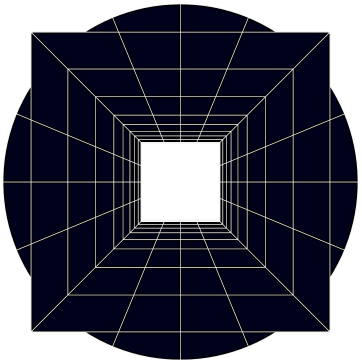
Using the HEP CAT Particle Beam Cannon: Each shot uses one energy unit (a unit is removed for each shot taken). A valid shot can go in any of the eight vector directions on a level, or it can shoot up or down either the perpendicular column or the slant column.

ENERGY**:** The command ship (unlike the other ships) MUST always have at least one energy unit to power the life support systems. If it loses its last unit, it becomes a dead command ship at the end of that turn and the game is lost.

Since firing the HEP CAT requires using an energy unit, the command ship must have at least two units on board in order to fire the cannon and survive.

Forcing a Draw: Using your last energy unit to destroy the other command ship with your HEP CAT also kills you, resulting in a tie game.

Command ships can also shuffle energy with other ships.



TELEPORT GATE

Can move one position at a time, to any adjacent position on a level OR up/down either the perpendicular column or the slant column one level (just like the command ship).

THE ATTACK **:** Teleport gates do not attack and cannot move onto an occupied position.

TO USE: When a ship is moved onto a gate, the ship is immediately teleported to the other gate as part of that same move. The teleported ship stays on the destination gate until the player moves off of it in a different turn.

A ship can stay on a teleport gate indefinitely, but If a gate is occupied (has a ship on it) then teleporting is blocked. If a gate is blocked, the other gate does not transport and can be used as a normal, non-teleporting position by friendly ships.

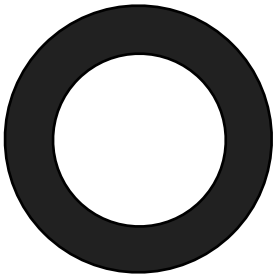
An occupied teleport gate cannot be moved until the ship occupying it has moved off. To teleport back through the gate, a ship must move off the gate then move back on. Teleport only happens when landing on the gate.

OTHER EFFECTS: If you move a ship onto an opponent's teleport gate, your ship is teleported out of existence and is destroyed. BUT, if the gate is occupied by one of your opponent's ships when you land on it, then BOTH ships are destroyed simultaneously. (If a third ship is on the opposite gate, it is not affected.) In either case, the gate itself is not affected.

Teleport Gates block another ship's movements. (Excluding the Neornithes, which cannot be blocked.)

DESTRUCTION: Teleport gates can only be destroyed by an enemy Trych detonation. If the gate is occupied, that ship is also destroyed. If one gate is destroyed by a Trych, it does not destroy the other gate (unless both gates are within range of the Trych explosion.) Any singular gates will be useless for teleport, but can still be used to block your opponent's ships.

ENERGY UNITS



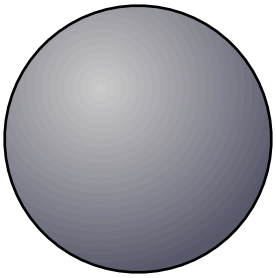
All ships except the Trych and Teleportals need at least one energy unit to function. This includes movement and the use of weapons. Without energy, ships go into a stasis mode and lie dormant until new energy arrives.

To shuffle energy, ships must be adjacent to each other on the same level. (You cannot shuffle energy to a different level.) One energy ring may be moved per ship during your turn. If more than one ship is on adjacent positions, you can shuffle an energy ring onto a ship, then off it to the next adjacent ship, and so on in the same turn for as far as your ships are adjacent to each other. (Think of it like multiple jumps in checkers.) You cannot move multiple rings onto or off of the same ship in one turn. (Only one ring on, and/or one ring off each ship in a turn.)

You can also move a ring onto a ship and immediately consume it by using a secret weapon such as cloning, deflectors or using the HEP CAT.

When a ship with one or more energy rings is destroyed, one ring is captured by the attacking ship, but only if that ship has the spare capacity available. Any excess rings are destroyed.

MINES



If you want to move a ship but also keep its position occupied (to block your opponent, for instance), you can convert one energy unit to a mine and leave it behind when your ship moves.

Your opponent's mines can only be destroyed by a Trych detonation, or by using the HEP CAT, or by sacrificing one of your ships. When your ship lands on a mine, both the mine and your ship are destroyed. (Trych cannot land on a mine, just like they cannot take another piece's position.)

You can re-absorb your own mines and convert them back into an energy ring by landing on their position. If you already have a full complement of energy, you can still absorb the mine but no new rings are added. (The excess energy is dissipated into space.)

Section Three

The Game

Captain Decker's Yavoch

The Game That Won The War

The original version of the game, used to train our strategists for battle against the Ainur.

Choose who will be player one and player two. Player one arranges his/her pieces any way they choose on either the bottom two or top two levels. Afterward, player two arranges his/her pieces however they choose on the opposite two levels. The middle level should remain empty.

Both players place one energy unit on each of their ships, excluding Trych and Teleport Gates. Player one moves first.

Attacking:
There are elements of chance in every battle. Hardware failures, software glitches or an opponent who sees you coming are all real possibilities. When one ship attacks another, sometimes the defender wins.

When you attack an opponent's ship:
Announce the intent to attack and specify which ships are involved.
Roll the ten-sided die of fate. The attacker must roll a number higher than the number of energy rings on the defender's ship. If the number rolled is ***less than*** the energy contained by the defender, the attacker loses. Note that it does not matter how much energy the attacker has.
For instance:

- — If the defender has no energy rings, the attacker automatically wins.
- — If the defender has one ring, attacker must roll anything other than zero to win.
- — If the defender has two rings, the attacker must roll 2, 3, 4, 5, 6, 7, 8, or 9 to win.
- — etc...

The winning ship takes one energy unit from the loser. The rest are discarded. If your ship already has five units, all the loser's units are discarded.

Exceptions:

1. The Trych always lose when attacked whether they carry a ring or not, and always win when detonating. This includes Command Ships within a Trych blast zone.
2. The Command ship always wins when it attacks another ship, regardless of the energy balance.

Special Note: A player may attack one of his or her own ships, but the die of fate must still be rolled to determine the victor of the battle (self-preservation is a feature of artificial intelligence— see Asimov's 3rd law of robotics).

If the attacker wins the battle: The loser's ship is removed and the attacker's ship takes its place. If the defender had any energy rings, add one to the attacker's ship if it can take it. (You are only allowed up to five energy rings on a ship.)

If the attacker loses the battle: Remove the attacker's ship and all its energy from the playing field. Your turn is over. The defending ship does not gain any new energy.

Attacking and killing the Command Ship:
The command ship is home to the intelligent strategists in this war and has multiple defenses and redundancies built in. Thus, the command ship is harder to kill. For the sake of determining the victor in an attack, the Command Ship is assumed to have **SEVEN** energy units regardless of the actual number of energy units installed. **If you attack a command ship, you must roll a 7, 8 or 9 to win.**

Since the outcome of attacking a Command Ship is not certain, there is no "check" as in chess. If your Command Ship is in jeopardy and you think your opponent is too much of a coward to defeat it, you may leave it in jeopardy if you wish. It's your neck.

Using the HEP CAT weapon:
Each shot of the HEP CAT will cost one energy unit (a unit is sacrificed for each shot taken). Since the Command Ship must keep at least one energy ring to stay alive, you'll need to collect more than one ring before you can safely fire the cannon.

The HEP CAT can be fired only once during your turn, but you decide when to fire it. You can move the command ship then fire in the same turn, or you can move a different piece then fire it, or you can fire it at the beginning of your turn (to clear a space, for instance) then move a piece. But you can only fire the HEP CAT once during your turn (you cannot fire it, move a piece, then fire again.)

Each time the HEP CAT is fired, you sacrifice one energy ring.

How energy is gained or lost:
When one ship defeats another in battle, the winning ship gets to keep one of the losing ship's energy units. Each ship can carry a maximum of five units (except Trych, which can only hold one). If you acquire more than five units, the excess energy is lost (the units are discarded). If a ship is destroyed while on a teleport gate, all its energy units are destroyed (teleported out of existence.)

Shuffling energy:
On each of your turns, any of your ships that are adjacent to each other can transfer one energy unit between them, whether the ships were moved in that turn or not. Each ship's total energy may increase or decrease by ONLY ONE energy unit during a shuffle. You cannot move multiple energy units *to or from* a single ship. For instance, if a ship starts with four energy units, it must have either three, four or five energy units after the shuffle.

Shuffling energy is optional, and occurs only at the end of a player's turn after he or she has moved but before the opponent's turn begins.

Ships with no energy units:
A ship with no energy units cannot move and cannot attack until it acquires one via transfer from another ship (except Trych and Teleport Gates, who can move without energy units).

Trych detonations:
When a Trych detonation destroys ships, all their energy units are also destroyed.

Winning the game:
There are three ways to win the game

1. **Destroy your opponent's Command ship**: The Command Ship can only be destroyed by a detonating Trych, your HEP CAT weapon, or a winning roll by an attacking ship.

2. **Immobilization**: If your opponent cannot make any valid moves with any of their ships, OR has no ships other than the Command Ship left, then you win.

3. **Energy starvation**: If you render your opponent's Command Ship powerless by depriving it of energy somehow (so that it has zero units) Your opponent's command ship must gain more energy by the end of his or her turn. If they cannot, you win.

The Full Yavoch:

Advanced Fates and Fortunes of Battle

In our battle with the Ainur, several events caught us by surprise. We had no idea our artificial intelligences could be creative and innovate, but somehow they did. After the war, the game was modified to include events and actions from the actual battle. This version is played exactly like Capt. Decker's version, plus...

Secret weapons, in-field innovation and random chance events

It turns out that the components of hop drives, teleportals, field effect devices and such can be used to make interesting new things. Someone has been innovating in the field, and now you have a secret weapon. But will you be in a position to use it?

Starting the game:
The game starts exactly like Captain Decker's version, but with the deck of cards shuffled and laid facedown in a place where both players can draw from it. Do not deal any cards. You start the game with an empty hand and collect one card at the end of your turns until you have a full hand of five cards. Whenever you draw a sixth card, you must choose one to discard, so you are left with only five cards at the end of your turn. Both players will discard to the same discard pile.

There are two types of cards: Impact and Component.
— Component cards are used to build secret weapons. Keep these cards private.
— Impact cards affect both players and must be turned face-up when they are found.

Impact cards:

Have the word "IMPACT" on the back of the card. Whenever you draw a *component* card and reveal an impact card beneath it:
1. Finish your turn including any discards you might need to do, then,
2. Between turns (after yours ends but before your opponent's begins), the impact card must be turned face-up for all to see.
3. Follow the instructions on the card.

Impact events are not part of anyone's turn, they happen between turns.

Descriptions of IMPACT events:

Engineering Failure: A costly mistake has been made in the development of a secret weapon. Both players roll the die of fate. Anyone who rolls an odd number (1, 3, 5, 7 or 9) must return all their cards to the discard pile.

Enemy Defector: There is a spy among us and he has absconded with important information. Each player draws one component card from your opponent's hand.

Core Anomaly: A mysterious fluctuation in space-time has drained some ships of all their energy. Remove **all** the energy units from all ships *on the dotted lines* on every level.

Core Dump: All ships in the core mysteriously vanish in a spontaneously occurring trans-dimensional quantum relativistic time tunnel to oblivion. Remove all ships (including teleportals) *on the dotted lines*. Trych do not detonate, they simply vanish. If your Command ship is lost, you lose the game. Too bad. Mysteriously, one energy unit is left behind at the position of each vanished ship. Any ship moving onto one of these positions gets the free energy. If you already have five energy units, extra ones are discarded when you land on them.

Massive Asteroid Swarm***(AE):** A surge of gravity waves has put swarms of asteroids in motion on level three. Any ships on level three without energy are immediately destroyed. All remaining ships lose exactly one energy unit due to fighting off asteroids.

Unexpected Asteroid Impact***(AE):** Roll the die of fate to determine which region of level three is affected. If you roll:
1-5: All ships on the corresponding short vector coordinate lines (both bare and circled) are destroyed. (Nine of the possible 25 positions are affected.)
6: All ships in the ALPHA quadrant *including the boundary positions* (on the dotted lines) are destroyed. (Again, nine positions are affected)
7: All ships in the BETA quadrant *including boundary positions* are destroyed.
8: All ships in the GAMMA quadrant *including boundary positions* are destroyed.
9: All ships in the DELTA quadrant *including boundary positions* are destroyed.
0: Roll a zero and all ships on all quadrant boundary positions (dotted lines only) on level three are destroyed— In each case, nine positions are affected.

*(AE): Asteroid Event Additional information:

- Teleportals and mines are also destroyed in the affected zone.
- If a Trych is destroyed, it does not detonate. It just goes away.
- If your Command ship is *anywhere* on level three (the asteroid field) during one of these events, it is unable to avoid destruction due to its immense size and slow speed. Your Command Ship is destroyed *regardless of its energy, location or the roll of the dice.* You lose, too bad.

Component cards and secret weapons:

Component cards represent technologies used to build secret weapons. At the beginning of the game shuffle the deck and place it face down on the table. At the end of each turn, players draw one card from the top of the deck. A player can hold up to five component cards in hand at any time. Whenever you draw a sixth card, discard any one of your cards face down in a discard pile.

To build and use a secret weapon:

Collect component cards of the same ship type. The cards with all four ships are wildcards that can be used for any ship type. When you have all the necessary components for a weapon, you use it from a ship that matches the type on the cards.

For instance, if you collect the components for a weapon but two are Squam and one is Trych, then you do not have a match. But if a Squam is on one or two cards and the rest are multi-ship cards, then the weapon is valid but must be used from one of your Squam ships. If you collect *all* multi-ship components, then you can use that weapon from any ship, excluding the Command Ship. Command Ships may not use secret weapons.

Components:

- ✦ Antimatter/Matter Inverter
- ✦ Dark Energy Collimator
- ✦ Matter/Energy Transducer
- ✦ Field Effect Emitter
- ✦ Graviton Polarizer
- ✦ Particle Beam Inductor
- ✦ Worm Hole Initiator
- ✦ Base Element Transducer
- ✦ Magnetic Monopoles
- ✦ Wild Card - Any Component

There are two types of secret weapons, offensive and defensive. Use an offensive weapon when you attack. Use the defensive one when someone attacks you.

Descriptions of offensive secret weapons:
Using an offensive secret weapon counts as a move in your turn. In other words, you use the weapon INSTEAD of making a move. The piece employing the weapon must already be in position before your turn begins. To attack an opponent's ship with an offensive weapon, that ship must be on an unblocked line of sight in any direction along long or short vectors, or along either the slant or perpendicular columns from your attacking ship's position. Your attack ship must have at least one energy ring to use the secret weapon. (The ring is not sacrificed unless specified below.)

Tractor Beam: This is used to force another ship to shift one position in any direction you choose (long or short vector, slant or perpendicular column), regardless of the ship's normal movement style. Can be used against an enemy ship or one of your own.

Antimatter Torpedo: Destroy an enemy ship from a safe distance. This weapon has the same destructive power as the HEP CAT and can destroy any ship, including Command Ships. This weapon is immune from the self destruct defense, but cannot penetrate a deflector shield.

Evolution: Promote or demote (devolution) one Trych, Squam, Neornith or Archid to any other type of ship excluding Command Ship, teleportals or mines.

Cloning: A ship with *two or more* energy rings can clone itself. The ship becomes two identical ships, the new ship is moved from the original ship's position and the original ship remains in its place. This procedure loses one energy unit (the cost of creating matter from pure energy) and the remaining energy rings are split between the two ships in any arrangement as long as the ship that moves keeps at least one ring.

Remote Energy Absorber: This is used to drain ALL the energy units from an enemy ship. The attacking ship can keep as much of the energy as it can hold up to five units, or one unit for Trych, but the victim loses all energy units on that ship. The Command Ship is also vulnerable to this attack.

Revenant Device: Infect an enemy ship with a synthetic virus that turns it into one of your ships. Replace one of your opponent's ships with the same type of your own color. Does not include command ship or teleportals.

Hyperdrive, an untethered wormhole device: Unlike the Teleportal technology, this wormhole can be opened from anywhere, to anywhere, without an anchor point. A ship with this weapon can move itself to *any open position* on the playing field, on any level.

Description of defensive secret weapons:

Use a defensive weapon whenever you are attacked. Defensive weapons do not count as a move, but you still need at least one energy unit on board to use it.

Deflector Field: When you are attacked, use the Deflector Field to force a tie regardless of the roll of the die or number of energy units on either ship. In a tie, neither ship is moved and the attacker's turn is forfeited. You can also use the deflector to make one ship invulnerable to a Trych explosion. This is a defensive weapon. It can only be used when you are attacked. There is no energy cost to use this weapon.

Self Destruct: When your ship is attacked and it loses the battle, use this weapon to also destroy the attacking ship (both are destroyed and all energy units of both ships are lost). This works against command ships too.

After a secret weapon is used, all its component cards are discarded and the player begins to collect new components on the next turn. If all component cards have been used up, the discard pile should be shuffled and used.

Winning the game:

The game ends under the same rules and conditions as in Capt. Decker's game.

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Section Four

Miscellaneous Profundities

Why a whole new set of rules? Isn't 3D Chess good enough?

Many people have tried to adapt the moves of chess into three dimensions. Most variations are either logically inconsistent (rooks moving on the diagonal vertically, for instance) or have serious imbalances that affect playability. We've researched dozens of variations for the game of Chess, played many of them, learned a lot about playability, and ended up throwing it all out to start fresh. After some reflection and experimentation, we created the staggered playing field with its slant columns and vertical columns.

Why the slant?

In most versions of 3D chess we studied, the board's squares are re-imagined as cubes. A rook moves through the faces of the cube (the sides of the square in 2D), but the bishop moves through the edges of the cube (the corners of the square in 2D). This gives the bishop eight additional avenues of movement in 3D (through the four edges on both the top and bottom of the cube), but the rook only gets two new paths (through the top and bottom faces of the cube). A cube has twice as many edges as faces, whereas a square has equal numbers of sides and corners. This flawed logic of the cube analogy makes the pieces' movements both confusing and unbalanced.

A simple alternative is to have both pieces move strictly vertically in the 3rd dimension, the common 'Y' axis is perpendicular to each piece's X,Y orientation, but we felt the Archid and Squam deserved distinct movements in the third dimension. The slant provides two easy to comprehend but very different kinds of vertical movement. The singular slant direction also restores balance to the number of paths open to these pieces.

Why no ships with queen-like power?

A common criticism of chess is that the queen is too powerful. Losing a queen makes a win almost impossible against a good player. Before the modern chess game was developed there was no queen in chess, and we think the game is better without it. However, the particle cannon of the Command Ship and the anti-matter torpedo are both capable of destroying an opponent's ship similar to the queen in Chess, but their use is also limited.

Why three of the Neornith and four of the Squam?

A traditional 8 x 8 game board has a total of 64 squares, but Yavoch has 125 valid playing positions. More pieces are needed for this new game. Rather than create whole new classes of pieces as some other games have done, we increased the count.

In chess, each of your bishops can only reach half the squares on the board (one is limited to black squares, the other limited to white). Each rook can reach all squares of either color making the rook roughly twice as useful as the bishop. For this reason, we doubled the number of bishop-like Squam to balance the power between these pieces.

Two knights used together are incredibly powerful, even more so in 3D. The traditional movement style for the knight has far too much complexity and flexibility in a three dimensional field, so we created a simpler movement and ultimately decided a third piece was needed in the game.

Why are the Trych so powerful?

Another common criticism of Chess is that the pawn is too weak. Yavoch has a lower percentage of pieces to positions than chess, so we felt a greater range and ability was justified for the weakest piece on the field. Adding more of the Trych just made things more fun.

What happened to castling, en passant and pawn promotion?

Those rules are abominations! (In our humble opinion, of course.) But we were inspired by those concepts, among others, to create our secret weapons such as Hyperdrive, Tractor Beam, Evolution, Cloning and the rest.

What about the random elements and secret weapons?
Isn't chess complex enough without all that stuff?

Not at all. It adds excitement! A lot of people consider chess to be boring. There are only twenty possible opening moves in Chess. All chess masters memorize and use established and well-known patterns of moves starting from those twenty. This makes the game largely a memory game at the highest levels of play. Make a mistake in the first few moves, and the other player can force a win. In fact, grand master games are

rarely played to completion. Both players can recognize an inevitable forced win and the loser will resign long before the game gets to a checkmate. Experts have said that a perfectly played game of chess will always end in a draw, the only way to win is for your opponent to make a mistake.

In real life, everything has an element of unknowable risk and happenstance. Risk management and the exploitation of random chance opportunities are very real aspects of competition, whether in business, the evolution of species, dating, athletic games and more. Learning to play the odds of pure chance is a different kind of skill. Good risk management requires practice, strategy and forethought. Adding random elements opens the game up to a wider variety of playing styles and skill levels.

Why is there not a specific layout to start the game?

Moving pieces into place on such a large field took too long and made for a very dull start to the game. We learned that different players like different initial set-ups depending on their defensive and offensive styles. This way is like giving both players a head start.

Also, in chess, the first mover has a distinct advantage. In tournaments, the first mover is statistically about 27% more likely to win among players with equal skill. By letting the second player arrange his pieces after the first player has set-up, the first mover's advantage is eliminated.

What do the names mean?

In the year 2160, Astronomers studying the *Atlas of Images of NUclear Rings* (AINUR) discovered that many of the planets in the Milky Way's nuclear ring were inhabited by very similar alien cultures. This cultural similitude was called the "Ainur Culture" after the galactic nuclear ring. We later discovered that these worlds had all been conquered by a single warrior species, thus the similarities. This is how the Ainur species got their name.

"Yavoch" is the expletive shouted by Capt. Decker anytime (and every time) he gets an opportunity. We don't know what it means. He claims it's an ancient family tradition going back to the early 21st century. We understand that the captain's ancestors were avid players of many types of Chess and they often endeavored to create Yet Another Variation Of Chess from time to time.

Neornithes is the order of birds.

Squamata is the order of scaly reptiles.

Architeuthidae (Archid is our shortened form) is the family name of giant squid, the fastest, most intelligent invertebrates in the world and possibly the most intelligent creatures in the sea. By some tests, squid are at least as intelligent as chimps.

Trych is short for the Latin word Trychu, which comes from a Roman translation of Aristotle's description of insects as tiny animals with segmented bodies.

What else do we know about the Ainur?

One of their favorite foods is a small, oily, salted fish called "Chovay", which, ironically, is Yavoch spelled backwards. The Ainur's typical meal is a flat bread, smeared with a paste made from a bland fruit that has been mushed, seasoned and cooked down to a thick, dark substance they call "Soss". Then the bread and Soss are covered with the coagulated form of a glandular secretion from their captive animals, called "Sheezz". They distribute the oily, salted fish on top of this and bake it, then serve slices of it to their children and young adults. The whole dish is called "Ain'Chovay Peezhah", and if we hadn't defeated them in battle, we might all have to be eating this disgusting food today.