Game Guide

Requirements:

Minimum Resolution Supported:	1024 x 768
Maximum Resolution:	2560 x 1440
Operating System:	Windows XP, Vista, 7 or 8
Memory:	1 GB RAM+
Disk Space:	225 MB

What is SBX: Invasion?

   SBX: Invasion is a Tower Defense game where you control the AR-B Constructer, a Spacecraft equipped with a powerful building laser that beams in defenses to stop the Fuscian Invasion. The goal is to defend each zone and survive until you are able to defeat the Mothership and stop the invasion for good.

   The game uses Keyboard and Mouse controls to pilot your ship and build various defenses across the level. You must stop a wide assortment of enemies from destroying the base in each area. Your informative sidekick **AIUA** *(Artificially Intelligent Universal Assistant)* will give you tips and information about each stage as you progress through the galactic sector.

Features:

- Real time Path updating from enemies.
- Multiple Enemy AI types that will act differently and path differently.
- A robust Map Editor and Creator and the ability to easily load maps created by other people.
- 4X Resource System and Free Building within the Level. Create your own paths!
- No path blocking restrictions! Block enemy paths off if you want! But be careful if you do.

Controls:

Movement Controls:

W	- Move Forward
A	- Turn Left
D	- Turn Right
R*	- Swap Modes: *(Build Mode and Ghost Mode – *explained below)*
Space	- Fire Ship Weapon *(Build Mode Only)*

Building/Selection Controls:

Left Mouse Button	- Place Building / Select Structure
Right Mouse Button	- Cancel Item Use / Cancel Selection / Cancel Ghost Mode
Enter/Space	- Select Menu Item
Tab	- Scroll Through Build Options
F	- Select Fortification Structures *(Walls, etc.)*
T	- Select Tower Structures
G	- Select Generator Structures
B	- Select Building Structures
1-5	- Select Structure from Current Category

(i.e. If you have turret structures selected selects turret #1)

UI Elements:

L	- Open/Close Structure List Tab
M	- Open/Close MiniMap Tab
I	- Open/Close Information Tab

With a Structure Selected:

Q	- Sell Selected Structure *(75% of Build Cost Refunded)*
E	- Upgrade Selected Structure

(Repairs Fortifications and Purchases from Buildings (miners/upgrades))
[HOLD to repair walls when Quick Text is turned on]

Extra Hotkeys:

Escape	- Exit Game
P	- Pause Game
- / + (Numpad)	- Decrease/Increase Global Volume

Pressing <R> in SBX: Invasion will activate and deactivate Ghost Mode. In this mode you are unable to build, however you can fly through buildings at will and move at increased speeds. This cloaking mode is great for repositioning when you have gotten yourself stuck in an awkward place, but be careful to not use it too often as it blocks your ability to build.

The HUD

1. *The Base HP:* This is the HP of the Base in the Stage. If it reaches 0 your base explodes and you must restart the level.
2. *Your Current Resources:* These are the current resources you have. By killing enemies you gain Metal, Power Cores, and Gold. By mining Magnium Asteroids, you gain Magnium Ore.
3. *Your Build Selection:* This is the current build structure you have loaded. The building costs are listed below and will show in red if you do not have enough resources to build that structure.
4. *The Wave Info:* This is the information about what wave you are on, and how many waves are left and the time left in the current wave.

5. *The Build Selection List:* Here you can see the buildings you have available to you. Any not available will be greyed out. In addition if you are able to upgrade a building (turrets/generators) a yellow arrow will light up in the corner. Click on the icons to select them as your current building selection.
6. *The Mini Map:* Portals, Enemies, Buildings and Magnium Asteroid Locations will show up on this Mini Map letting you know where things are around you.
7. *The Base:* Keeping the Base alive is your mission. There is one in each Stage and you must keep enemies from destroying it.
8. *The Information Panel:* By clicking on a structure, you can gain access to more information, as well as buttons to upgrade and sell that structure. Information about the selection is shown in this panel.
9. *Magnium Asteroid:* These asteroids are critical to your success. All turrets are constructed using Magnium Ore so make sure to always have miners collecting ore for you.
10. *The Player Ship:* This is the AR-B Constructer Class A Cruiser. It is your mode of transportation and is equipped with a powerful Build Ray, a construction ray capable of combining materials into an assortment of powerful defenses.
11. *The Help File and Level Name:* Press F1 to access the help and information screen. This has additional information about the game if you forget something. Also the Current Level is displayed here.

The Buildings

Your ship uses a specialized constructor ray used to assemble various defenses from your cache of materials.

In the game there are 4 materials used for building structures:

Metal: Metal is used in all buildings, forming the shell and main components of the structure. You gain Metal from killing enemies.

Magnium Ore: Ore is used for offensive structures. Both weapon upgrades for the main ship as well as Turret Structures use Ore to activate their weapons. Ore is obtained by building a Mining Depot near a Magnium Asteroid and mining the Asteroid.

Power Cores: Power Cores are used to power your structures. Larger and more complex structures take many cores to power. You gain Cores from killing enemies.

Gold: Gold is used to purchase additional components and wire your structures. You gain gold from killing enemies.

Turret Structures: (Game is in Alpha and Values are subject to Change)

Note: Turrets are your main source of damage in the game and are powered by generators.

Gun Turret: The Gun Turret is the most basic of turrets. Its strength lies in being cheap and quick. It is a simple turret and cannot fire over walls.

Power:	10 Damage (50 DPS)	Metal:	25
Shot Cool Down:	0.20 sec	Ore:	25
Range:	700	Cores:	1
Structure HP:	150	Gold:	0

Missile Turret: The Missile Turret is a long range turret. It is powerful against slow, high HP enemies that it can target at range. Its missiles are homing and will seek out targets for a time before exploding.

Power:	75 Damage (56.3 DPS)	Metal:	50
Shot Cool Down:	1.33 sec	Ore:	50
Range:	900	Cores:	3
Structure HP:	180	Gold:	0

Flame Turret:

The Flame Turret is a short range AoE (Area of Effect) turret that specializes in short range, highly concentrated areas. It delivers a stream of plasma that will melt enemies in its path.

Power:	~375 DPS/Enemy (AoE)	Metal:	80
Shot Cool Down:	0.07 sec	Ore:	60
Range:	360	Cores:	7
Structure HP:	180	Gold:	0

Laser Turret:

Laser Turret is a powerful targeted laser that will deal damage to all targets it intersects. It deals heavy damage to a small area at the target location. It has moderate range and high damage.

Power:	~330 DPS/Enemy (Splash)	Metal:	120
Shot Cool Down:	1.00 sec (between charges)	Ore:	100
Range:	600	Cores:	10
Structure HP:	250	Gold:	0

Lightning Turret:

The Lightning Turret is a chain attacker that fires a powerful blast of electricity that will chain to nearby enemies. It is very powerful against clusters of enemies. It bounces to up to 2 enemies per bounce.

Power:	~64-192 Dmg/Bounce	Metal:	200
Shot Cool Down:	1.00 sec	Ore:	130
Range:	500	Cores:	12
Structure HP:	400	Gold:	0

(The next set of turrets are upgrades and are built from upgrading their lower level counterparts)

Snipe Turret:

The Snipe Turret upgrades from the Gun Turret. It is a powerful long range turret with increased accuracy. It is powerful at weakening enemies before they get close to your base.

Power:	40 Damage (133 DPS)	Metal:	75
Shot Cool Down:	0.30 sec	Ore:	50
Range:	1200	Cores:	4
Structure HP:	250	Gold:	40

Barrage Turret: The Barrage Turret is a long range multi-missile turret. It delivers a powerful barrage of 6 homing missiles at enemies. It is effective at bursting down high HP targets at range.

|			
Power:	50 Damage (150 DPS)	Metal:	100
Shot Cool Down:	1.42 sec	Ore:	50
Range:	900	Cores:	7
Structure HP:	250	Gold:	50

Shadowflame Turret: The Shadowflame Turret is a long range AoE plasma turret. It uses the same ghost technology as your ship to deliver powerful streams of purple plasma right into the enemy ship interior.

Power:	~672 DPS/Enemy (AoE)	Metal:	120
Shot Cool Down:	0.05 sec	Ore:	80
Range:	600	Cores:	10
Structure HP:	250	Gold:	100

Ice Laser Turret: The Ice Laser Turret is a powered version of the Laser Turret that deals increased damage and slows enemies it comes into contact with. It is effective at slowing enemies down near other high damage turrets.

Power:	462 DPS/Enemy (Splash)	Metal:	180
Shot Cool Down:	0.66 sec (between charges)	Ore:	100
Range:	800	Cores:	12
Structure HP:	500	Gold:	100
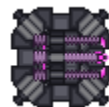
Arc Flash Turret: The Arc Flash Turret is a powerful chain lightning turret. Each bounce can target up to 3 new enemies and will do exponentially more damage to clustered enemies.

Power:	~100-400 Dmg/Bounce	Metal:	300
Shot Cool Down:	1 sec	Ore:	200
Range:	510	Cores:	22
Structure HP:	500	Gold:	200

Generator Structures:

Note: Generators power nearby turrets and may bestow additional effects.

Basic Generator: The Basic Generator is your standard model generator. It has no special bonuses and only powers 3 turrets. It is useful as a backup as it is cheap to build.

Power Capacity:	3 Turrets	Metal:	25
Bonus Effect:	none	Ore:	0
Range:	500	Cores:	2
Structure HP:	125	Gold:	20

Long Generator: The Long Generator increases turret range. It is useful for turrets that specialize in range and benefit from it. It is less useful for Flame type turrets as it spreads out the flame.

Power Capacity:	4 Turrets	Metal:	60
Bonus Effect:	+25% Range	Ore:	0
Range:	400	Cores:	5
Structure HP:	200	Gold:	40

Atk+ Generator: The Atk+ Generator infuses powered turrets with extra strength. Their attacks become stronger and more potent when linked to the Atk+ Generator. It is useful with high damage AoE turrets.

Power Capacity:	4 Turrets	Metal:	75
Bonus Effect:	+50% Shot Power	Ore:	0
Range:	500	Cores:	8
Structure HP:	200	Gold:	70

Quick Generator: The Quick Generator increases the Firing Rate of connected turrets. It is useful particularly with high damage single target Turrets. It is not very useful with Laser type turrets.

Power Capacity:	4 Turrets	Metal:	80
Bonus Effect:	-33% Cool Down	Ore:	0
Range:	500	Cores:	8
Structure HP:	200	Gold:	80

Heal Generator: The Heal Generator heals itself and linked turrets over time. It is useful against enemies that target your turrets or to place in high danger areas to heal your turrets.

Power Capacity:	4 Turrets	Metal:	100
Bonus Effect:	Heals +2% Max HP / sec	Ore:	0
Range:	500	Cores:	10
Structure HP:	350	Gold:	100

(The next set of generators are upgrades and are built from upgrading their lower level counterparts)

Expanded Generator: The Expanded Generator is the upgraded version of the Basic Generator. It functions excellently as a backup generator due to its large range and capacity for its low price.

Power Capacity:	6 Turrets	Metal:	25
Bonus Effect:	none	Ore:	0
Range:	600	Cores:	2
Structure HP:	250	Gold:	25

Tactical Generator: The Tactical Generator increases turret range as well as provides a small boost in power. It is great for massive long range control.

Power Capacity:	6 Turrets	Metal:	100
Bonus Effect:	+35% Range, +10% Power	Ore:	0
Range:	600	Cores:	7
Structure HP:	400	Gold:	100

Assault Generator: The Assault Generator provides a massive damage boost to linked turrets and increases shot rate slightly as well. It is very useful with AoE turrets.

Power Capacity:	6 Turrets	Metal:	200
Bonus Effect:	+100% Power, - 9% CD	Ore:	0
Range:	500	Cores:	12
Structure HP:	400	Gold:	250

Sonic Generator: The Sonic Generator massively increases firing rate of linked turrets. It also increases range slightly. Useful with Missile Type and Sniper Type turrets.

Power Capacity:	6 Turrets	Metal:	125
Bonus Effect:	-50% CD, +10% Range	Ore:	0
Range:	500	Cores:	8
Structure HP:	400	Gold:	125

Regenerator: The Regenerator heals and increases the max HP of linked turrets. It is very useful in dangerous areas where your turrets are likely to take damage.

Power Capacity:	7 Turrets	Metal:	250
Bonus Effect:	+3% Heal, +50% Max HP	Ore:	0
Range:	500	Cores:	12
Structure HP:	550	Gold:	250

Max Generator: The Max Generator upgrades off the Extended Generator. It is the ultimate back up turret. With its massive range and huge Power Capacity it can provide backup power to a massive area.

Power Capacity:	10 Turrets	Metal:	100
Bonus Effect:	none	Ore:	0
Range:	1000	Cores:	8
Structure HP:	600	Gold:	100

Fortification Structures:

Metal Block: The Metal Block is your standard Wall with low HP. It is useful for cheaply pathing out areas. It is not recommended for high danger areas.

Structure HP:	90		Metal:	10
			Ore:	0
			Cores:	0
			Gold:	0

Steel Block: The Steel Block is made from reinforced steel and provides additional protection.

Structure HP:	180		Metal:	20
			Ore:	0
			Cores:	0
			Gold:	0

Mithril Block: The Mithril Block is made from a special mythological ore recently discovered in a nearby system. It is very durable.

Structure HP:	390		Metal:	40
			Ore:	0
			Cores:	0
			Gold:	0

Obsidian Block: The Obsidian Block is infused with Magnium Ore, creating a powerful magnetic barrier around the block increasing its durability.

Structure HP:	1000		Metal:	100
			Ore:	2
			Cores:	0
			Gold:	0

Adamantium Block: The Adamantium Block is made from an extremely durable metal alloy created in 1969 ED, back on Earth. It is Gold plated with a Power Core to provide power to strength-reinforcing nanobots.
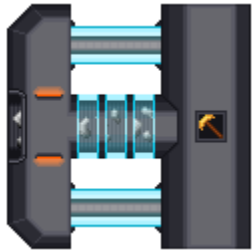
Structure HP:	1800		Metal:	140
			Ore:	0
			Cores:	1
			Gold:	10

Building Structures:

Note: Building Structures provide an assortment of benefits from mining to weapon upgrades.

Mining Depot: The Mining Depot is your main source of Ore Collection. Miners will spawn when purchased from the Depot and begin collecting ore from nearby asteroids. When built it will spawn 1 Miner.

Structure HP:	1000	Metal:	200
Max Miners:	2	Ore:	0
Purchase:	+1 Miner (50g)	Cores:	10
		Gold:	120

Mining Research: The Mining Research Station increases your max Miners on all Mining Depots by 1 when you purchase the upgrade. Useful when you already have lots of Depots or when you are low on Metal for new Mining Depots.

Structure HP:	1000	Metal:	250
		Ore:	0
Purchase:	+1 Max Miners (300g)	Cores:	20
	(increases by 200 each upgrade)	Gold:	0

Weapon Facility: The Weapon Upgrade Facility allows you to research more powerful weapons on your main ship. Your ship will fire additional projectiles and gain offensive power as you upgrade the facility.

Structure HP:	1000	Metal:	300
		Ore:	75
Purchase:	+1 Weapon Level (10 ore, 100g)	Cores:	25
	(cost increases each level)	Gold:	300

Core Factory: The Core Production Factory allows you to produce 1 core from your other materials. It takes Magnium Ore and coats it in Gold and then encases it in Metal to make 1 Power Core.

Structure HP:	1000	Metal:	150
		Ore:	0
Purchase:	+1 Core (25 Met, 3 Ore, 25g)	Cores:	5
		Gold:	100

Repair Facility: The Repair Drone facility allows you to build repair drones which will seek out and repair your turrets and generators.

Structure HP:	1000	Metal:	350
		Ore:	50
Purchase:	+1 Drone (50 Met, 50g)	Cores:	35
		Gold:	300

The Baddies:

   SBX: Invasion features a wide assortment of enemies with all sorts of skills and abilities. There are 7 different levels of enemies that increase in power. They are color coded so you know when a tough one is coming.

   Enemies scale up in HP and slightly in power. Level 7 enemies have around 40 times the HP of a level 1 enemy. These values vary from enemy to enemy but you better ramp up your defenses quickly if you want to survive!   Now let's take a look at the baddies and what they do!

Enemy Starships:

Enemy: Standard

This Standard type is weak and will attempt to simply rush to your base in order to destroy it. If you wall off your base completely it will target the nearest structure.

Base HP:	100
Base Atk:	6
Speed:	2.5
Special Effect:	None

Enemy: Assassin

The Assassin type will attempt to focus your miners before anything else. It will hunt them down in order to cripple your economy, however it is weak.

Base HP:	80
Base Atk:	10
Speed:	2
Special Effect:	Assassin (targets miners)

Enemy C: Stand. LG

This Standard type is much tankier than enemy A and is equipped with 2 powerful machine guns. If it gets to your base you are in trouble!
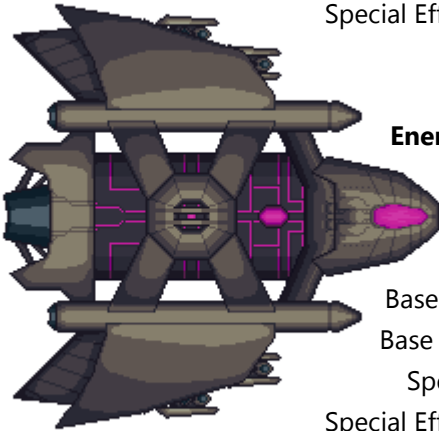
Base HP:	500
Base Atk:	10
Speed:	2.3
Special Effect:	none
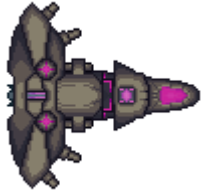
Enemy D: Sabo

The Sabo type will attempt to Sabotage your Generators and Turrets by focusing them. It will ignore the base until all defenses are demolished. It fires a barrage of missiles so kill as fast as possible.

Base HP:	300
Base Atk:	10
Speed:	2.3
Special Effect:	Sabo (targets defenses to cripple your towers)

Enemy E: Elite

This Elite Battle Cruiser fires massive missiles and releases Kamikaze enemies to take your base out. It will also destroy any buildings it collides with.

Base HP:	15000
Base Atk:	40 (per missile)
Speed:	0.3
Special Effect:	Elite (Massive HP but slow)

Enemy F: Kamikaze

The Kamikaze type will suicide into the nearest defense structure, dealing massive AoE damage to all nearby structures.

Base HP:	100
Base Atk:	50 (120 Radius AoE)
Speed:	4.0
Special Effect:	Kamikaze (Suicide Bomber)

Enemy G: Transport

The Transport cruiser carries multiple Kamikaze fighters. When it is destroyed or when it reaches the target it will release the Kamikaze Bombers.
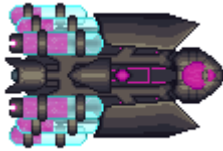
Base HP:	400
Base Atk:	N/A
Speed:	1.8
Special Effect:	Transport (Carries Bombers)

Enemy H: Builder

The Builder type will continuously build Turrets near your defenses. It must get a turret from a nearby Fuscian turret cache and will keep building until it is destroyed.

Base HP:	700
Base Atk:	N/A
Speed:	2
Special Effect:	Builder (Builds Turrets near your defenses)

Enemy I: Gasser

The Gasser type will release corrosive gas that will slowly damage nearby defenses. When destroyed it will unleash a massive AoE burst of Fuscian gas. You cannot build inside the gas. If it gets too close to its target it will also explode unleashing the gas.

Base HP:	600
Base Atk:	6 dmg/sec per cloud (150 explosion range)
Speed:	1.6
Special Effect:	Gasser (Unleashes Caustic Gas)

Enemy J, K, L, M:

These enemies are active in endless mode as well as in the custom map creator selections.

Tactics:

This section will explain some basic tactics that are useful in SBX: Invasion. Using these tactics in certain circumstances will greatly increase your chance of survival.

Beginner Tactics:

Tactic 1: Pathing

Many enemies will attempt to get to your base on the first free path. Walling your base off entirely will cause them to go berserk and attack everything in sight. What you want to do is create a path so they spend more time under fire. Using Metal Walls is great in situations where you aren't concerned about enemies breaking through.
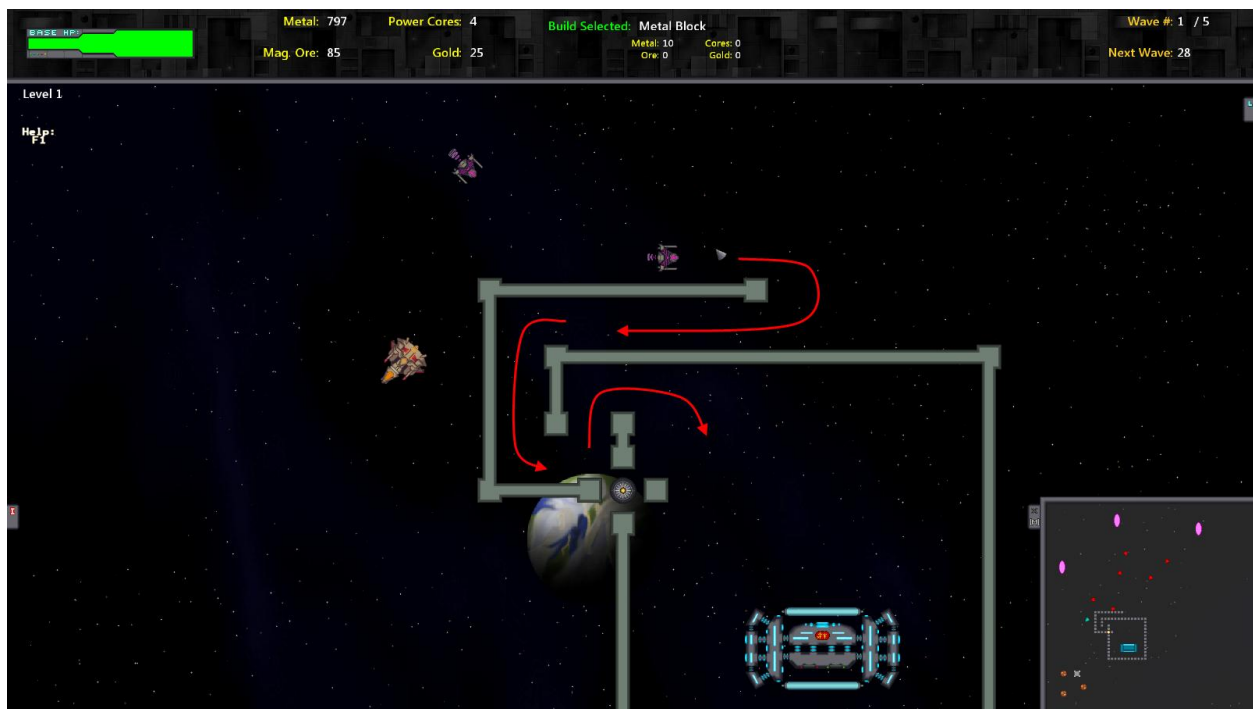
By forcing the enemy along this path, it passes by three turrets and spends a considerable amount of time under fire. Enemies will choose the shortest possible path to the base so if there is more than one way to get there, consider how long each path is.

Tactic 2: Walling

There are many enemies that will attempt to destroy your generators and turrets. Walling off your generators and turrets can protect them from destruction and allow them to eliminate the attacking enemy. Use stronger walls when difficult or highly durable enemies are assaulting your structures.

Remember that Gun Turrets cannot shoot through walls, so upgrade them to Sniper Turrets in later levels once you can.

Tactic 3: Repair Walls

Repairing Walls is much cheaper than buying a new wall, so do it as often as you can. Keeping walls intact will also ensure that your planned path for enemies stays the same and no sudden path changes catch you off guard.

Intermediate/Advanced Tactics:

Tactic 4: Backup Generators

   Having a backup generator can save a lot of frustration if your main generator gets destroyed. Placing a Basic Generator in the midst of a group of turrets and upgrading it to an Extended or Max Generator is a great way to have back up power ready. Turrets will automatically repower themselves off the nearest generator they are in range of.

Tactic 5: Double Walls

   When you have the available metal, doubling up a wall is a great way to ensure that areas can take a few hits before your pathing system gets sabotaged. A great way to do this is place cheaper walls where enemies are less likely to attack and more expensive walls where it is more dangerous. Also keeping a space between your walls and what you are trying to protect will ensure that Kamikaze type enemies will not be able to damage the protected structure with their explosion.

Tactic 6: Mining Depot Placement

   Whenever possible try to place your Mining Depots 1 square away from Magnium Asteroids. This will decrease the travel time of your miners and increase your Ore gain per Minute per Miner. Doing so will enable you to build more offensive structures quicker.

Tactic 7: Decoy Walls

   Certain enemies (like the Kamikazes) will target your nearest structure. Placing a cheap Metal Block nearby when they spawn or by where they path will distract them from taking out an area of blocks.

Tactic 8: Rerouting

  If you have the available resources, planning out two separate paths and then opening one side and blocking the other side can reroute enemies to extend the time they spend getting to your base. Here is an example of an initial path. The left side is blocked off so enemies will path to the right side.
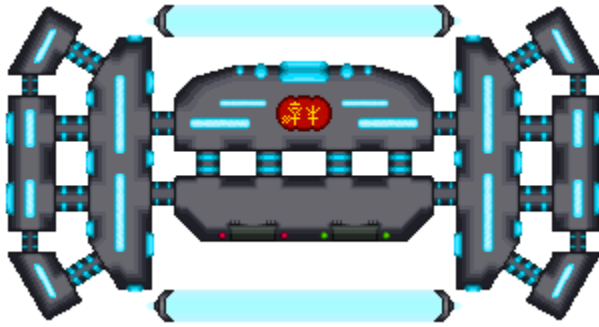

Next you sell the block on the left side and build one on the right end. Enemies will reroute to go the left way increasing the time they spend in transit.

Other Objects:

  Throughout the game you will come into contact with various objects. Here are some you might see and what they do.

The Base: This is main Base in each level. You must keep enemies away as they will attempt to destroy it. The Base HP is found in the upper left corner of the HUD.

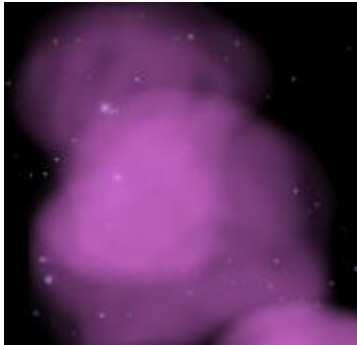**Mag. Asteroid:** Magnium Asteroids can be mined for Magnium ore. They are necessary to your survival.
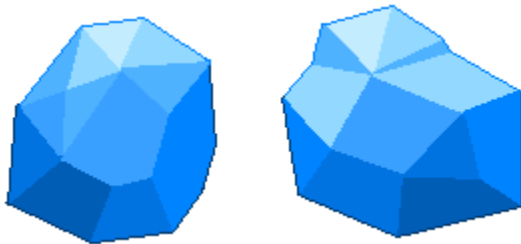
Space Glacier: Space glaciers will slow nearby enemies. They can, however be destroyed by enemy explosions.

Asteroid: Asteroids are objects that block movement and building. Unlike Magnium Asteroids they cannot be mined.

Fuscian Gas: Fuscian Gas impedes building. You cannot build in or too near this destructive gas. Natural occurring gas will not damage existing buildings; however, produced gas from Gasser Enemies will damage your buildings, but is temporary.

There are many things to see and explore in SBX: Invasion! Hope you enjoy the game and good luck!

Credits:

Game Creation:

Game Creator / Designer: Jason Carter (WakeskaterX)

Sound Artist: James Cox (Jimecide)

Art Help: Cody Rigby

Alpha Testers:

Alpha Test Lead: James St. Don

Beta Test Lead: Mirko Schulze

Alpha Testers: Phillip Berryman
  Victor Fiore
  Owen Dolloway
  Scott Tauriello