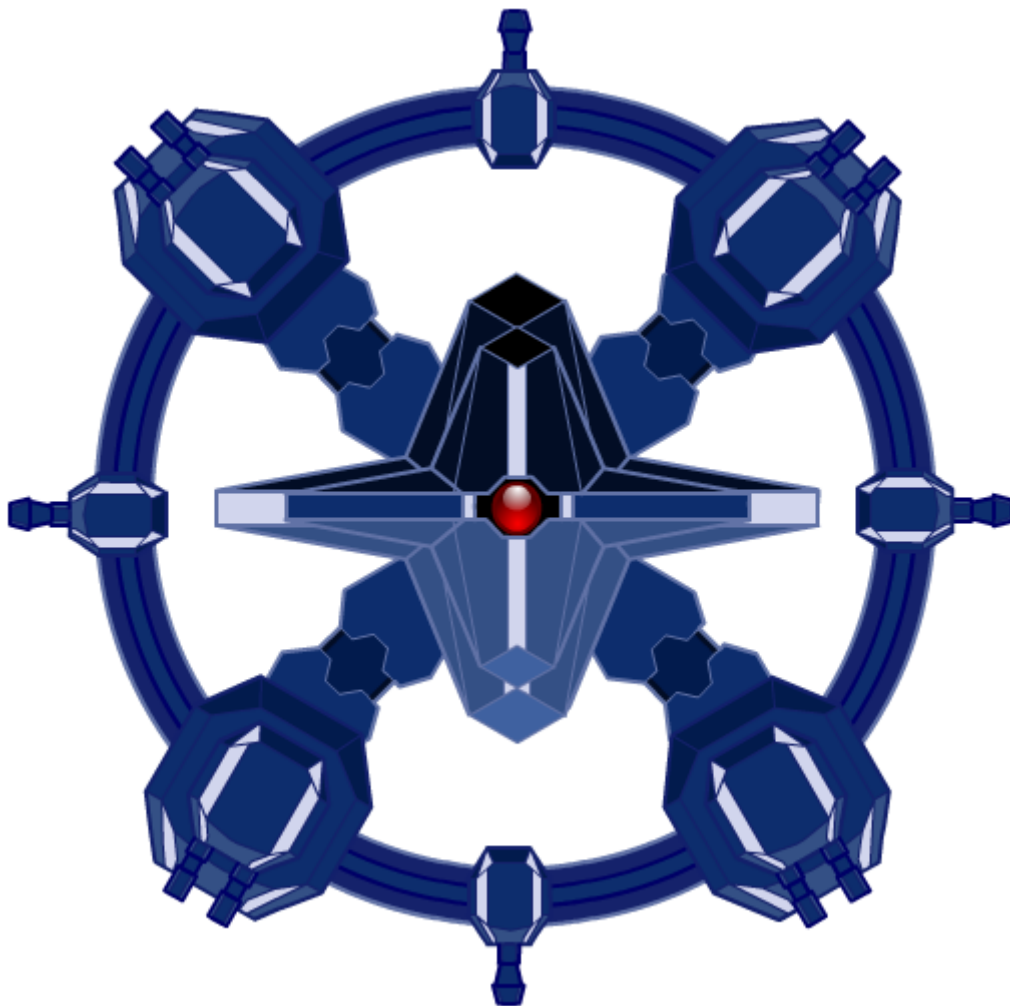


Design document – Project Fatboss

This is a design document for the game Roche Fusion (<http://rochefusion.com>), shared to give insight into the game's development process to those interested. All of the information contained within should be considered work-in-progress. Things may change for a variety of reasons, including but not limited to implementation or balancing issues, not being fun, and user feedback. You can find out how to contact the developers at <http://rochefusion.com/contact>.

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Goals

- Make a blue mini boss that uses bullets as main weapons.
- Obviously the boss has to be interesting, which from experience means that it has to use a lot of minions. Players seem to enjoy bosses much more when they have to fight and avoid minions, compared to fighting a single unit with a lot of health.

Design

Main guns

The basic shape of the boss is square, or almost square rectangle, about 3 units on a side. Its main weapons are four big guns, one in each corner. Each has several barrels and shoots multiple projectiles at once every shot.

These main weapons have their own sprite and rotate visibly to track their target. They cannot rotate the full 360 degree circle (missing around 100-110 degrees in the direction of the centre of the unit).

These guns acquire any player in their range; track them with a speed such they can keep up with the player's movement, if the player stays at least ~6 units of distance away. If they think they can hit the player (either aiming at him, or at the point the player is projected to be when potential bullets hit them), they fire in volleys of red plasma projectiles every second or so.

Ideally, the firing is calibrated such that the player can either stay far away and dodge or can fly close by and pass by the guns barrel, with the shots just missing it.

Gatling guns

In addition, the boss has two Gatling guns on the centre of two opposite sides. These have almost instant tracking, but are less accurate than the main guns. They shoot smaller projectiles in rapid bursts (similar to half of NOP3's primary).

Their range is limited, and they only fire if the player is within ~4-6 units of the gun.

Drone spawning

On the remaining two sides of the boss, there are imaginary points where the boss can spawn regular blue drones to help it. It spawns them by 'building' or 'teleporting' them on the spot. They materialise there and then move out and behave similarly to the way blue drones behave otherwise, except for avoiding overlapping with the boss itself (a pushing force could be used to enforce this, so that they never overlap, even if the boss moves into them).

The boss can rapidly spawn groups of ~8 smallest blue drones, ~6 medium, or ~4 large ones. These are armed with appropriate weapons, shooting single, triple, and 5-bullet bursts at the player, again similar to the way they behave in the rest of the game.

Shield

One distinguishing feature of this boss is that it has a large shield, with a ~4-5 unit radius. The collision of this shield is accurate, and in fact, the player can damage the boss directly if he flies inside the shield. The shield itself has a small recharge delay, so that even a weak player can get it down, as long as they keep on firing at the boss. If the player does not damage it for ~1 second, the shield recharges slowly.

When the shield drops to 0, it deactivates and allows the player to deal damage to the boss. The shield then recharges while deactivated and only reactivates when it is completely full.

The health of the shield and boss should be balanced such that in a typical fight the player has to disable the shield two or three times before being able to kill the boss.

Note that the shield should be considerable weaker than the boss health itself. Otherwise piercing weapons would offer too much of an advantage.

Note that spawned drones may also be protected by the shield should they be inside or behind it.

Swarms

The boss can also spawn swarms of blue circle drones that move either straight down in a horizontal interval that does not intersect the boss, or move horizontally, in either direction at the bottom of middle of the screen. The latter should be rare, but happen at least once or twice per fight on average.

Movement

The boss stays in the upper third of the screen and can move left and right to some degree.

Staying roughly in the centre is probably more interesting, since the player is given more choice about where to engage from.

However, a strategy the boss might employ is move to the side, and then flush the player out from under it using a horizontal swarm from the same side, while spawning a bunch of drones in that upper corner. The boss could then return, stop the swarm, and leave the spawned drones behind.

This and other interesting strategies might already be achieved by randomly combining the other behaviours, or may have to be considered as special cases.

Note that the boss should always stop to spawn drones. Further it should probably move in linear steps between periods of rest, similar to the blue drones themselves, though probably less fast.

Rotation

It is not clear whether which orientation of the boss would be most interesting. If the boss has its Gatling guns on the left and right, it might be more interesting to have it only spawn drones at the top. If it has Gatlings to the bottom (and top, though that would be mostly if not completely idle) it could spawn on both sides at the same time.

An interesting twist (pun intended) would be to let the boss rotate in 90 degree steps every now and then, and change between the two behaviours.

A proposal

Another addition that could be considered is letting the four guns of the boss be hit and destroyed individually. This would not damage the boss, but it would make it considerably more dangerous.

If this is implemented, the boss should be able to rotate and should try and have guns towards its bottom side where they can hit the player easier as often as possible (though the player should not be able to force the boss into a single rotation by destroying two guns next to each other, so some randomness needs to be involved).

Figures

Below are two figures showing the rough design of the boss in its two orientations

