Battle Tinker - Game Proposal Chapter DRAFT

Sandro De Zanet, Fabio Zünd, Marco Rietmann

March 3, 2008

It's the year 2308. Over the last centuries humanity advanced deeper and deeper into space until some day they came across the planet Nauhra, very similar to earth. Unfortunately, the Nauhraians were not very hospitable nor were the humans very friendly. War spread throughout the galaxy. Ultimately, Nauhra was destroyed by men and earth was blown up by the Nauhraians. Nothing survived... except... the human housekeeping robots [1]. Now, five years after Earth Destruction Day, the robots are bored and depressed, they have nothing to do. They start constructing starships out of left over junk parts from the earth and battle each other. It's day one of Battle Tinker Wars.

1 Game Description

1.1 Game Play

When starting the game each player can choose one of these housekeeping robots out of N different types of robots (gardener, butler, driver, garbage collector, etc.) and a color. In the next step each player can choose a prebuilt space ship or he can decide to build it from scratch. If a prebuilt ship has been chosen, nothing has to be done, and the player will get on the battle ground. On the other hand, if a player has chosen the space ship from scratch option, he will have first to build that ship. After every player has built or selected a ship, the battle begins. Basically, the opponents have to shoot and destroy each other. Every time a ship is destroyed, the destroyed player can change his spaceship in the editor. He has a limited number of changes he can do to his ship.

The battle is held in a Free-For-All 'arena', in the place where earth has exploded. Possibly, the players can choose to select a different arena such as the space near Nauhra. In the background the player sees stars and planets like the Sun or Mars and Venus. The arena is restricted by a hull of debris (spaceship parts, stones, anything). If a player flies into the debris the ship will be destroyed immediately.

The hidden but fundamental challenge the players will face is to appropriately place the engines on the ship and meaningfully assign them to the controller buttons in order to

[1] In the recent past, housekeeping robots became more and more important and evolved to intelligent, cultivated and even philosophizing beings.

be able to move the ship in all directions. Only when this premise is met, the player will be able to successfully engage the other players in battle.

1.2 Editor

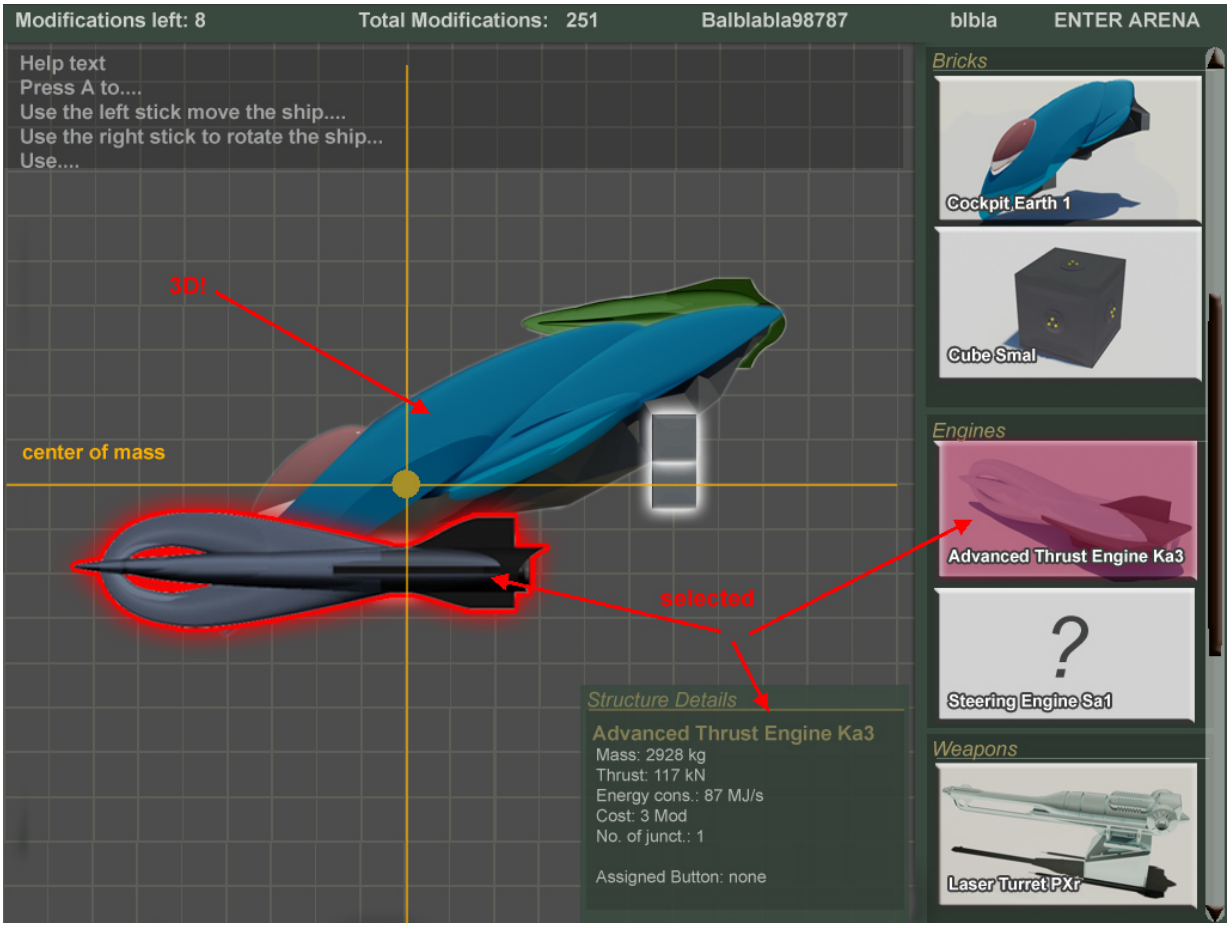

Figure 1: The Editor

In order to modify or build a ship, a player has to make use of the ship-editor (see fig. 1). In this editor a player has a predefined number of modifications he can perform on the ship, depending either on the initial number of possible modifications when the player is building a new ship, or on a battle-ground defined number. Adding or removing spaceship part costs x modifications.

The construction of a ship is subject to the following points:

1. Every ship consists of structures.

2. A structure can be any kind of cockpit, weaponry element, defense element, etc.

3. A ship has to have at least a cockpit.

4. Every additional structure will be added directly to the cockpit or to another already added structure.

5. Each structure has at least one juncture to be attached to a juncture of another structure.

6. A structure can be attached to another structure only with the junctures facing each other directly.

7. A structure can be turned along the axis through the two junctures.

The editor offers the following construction structure types:

Cockpit: The main unit of the space ship. If the cockpit is destroyed, the space ship is destroyed. (see fig. 2)

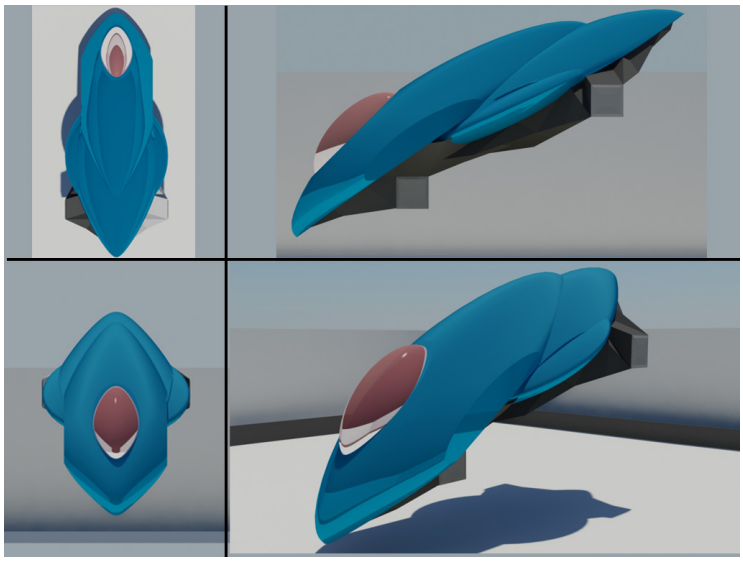

Figure 2: Cockpit Earth One

Brick: All parts of the ship, that can't be associated to a controller button and hence can't perform any actions. Their mere purpose is to act as support parts that glue all the other parts together.(see fig. 3)

Engine: An engine accelerates the ship in the opposite direction it points to. We envision two different kinds of engines: Large engines that are mainly used to accelerate the ship in one direction and small 'steering'-engines to rotate the ship. (see fig. 4)

Weaponry: Laser cannons, particle cannons, rocket launchers... (see fig. 5)

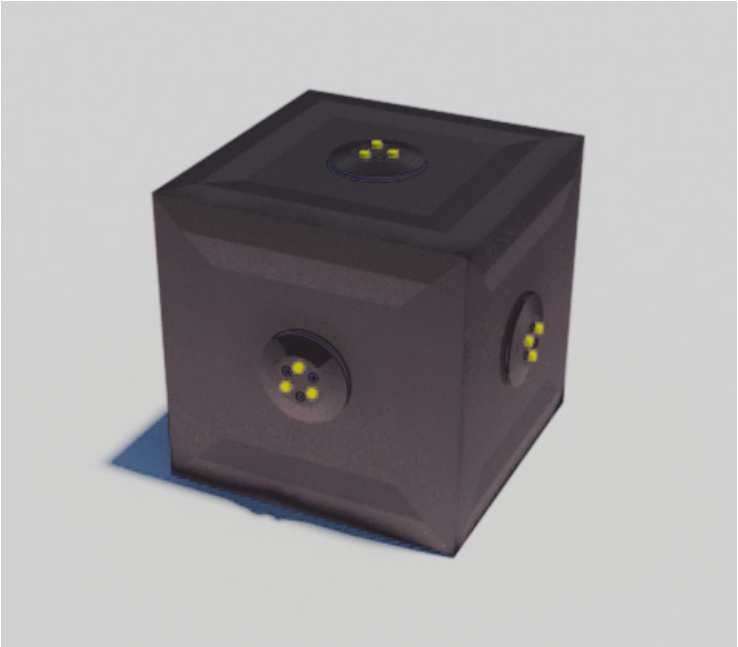

Figure 3: Cube Brick Small

Energy Supply: All the behavioral structures need energy. The energy supply unit stores energy and refills itself gradually.

Defense Mechanisms: Very robust structure parts that protect the ship from attacks. Shield generator that engulfs the ship with a shield that reflects and absorbs weapon fire.

To control the various parts of the ship, the player has to assign the controller buttons to the parts. The behavior of the structures will change depending on the 'analogousness' of the controller button. If for instance a stick or trigger is associated to an engine, the engine can accelerate arbitrarily. But if it is associated to a button, the throttle can only be full or off.

1.3 Battle

Once a player has finished constructing a ship or selected a prebuilt ship, he enters the arena (see fig. 6). The player can control the behavioral parts of the ship as he assigned it to the controller buttons, e.g. uses the sticks und trigger to accelerate the ship and presses buttons to fire laser cannons or rocket launchers. The ship will accelerate according to its mass distribution and placement of the engines. When the ship fires weapons or is hit by bullets, laser salves[2] or rockets it will accelerate according to the law of conservation of

[2]The mass of a laser salve is computed by its energy ($E = mc^2$)

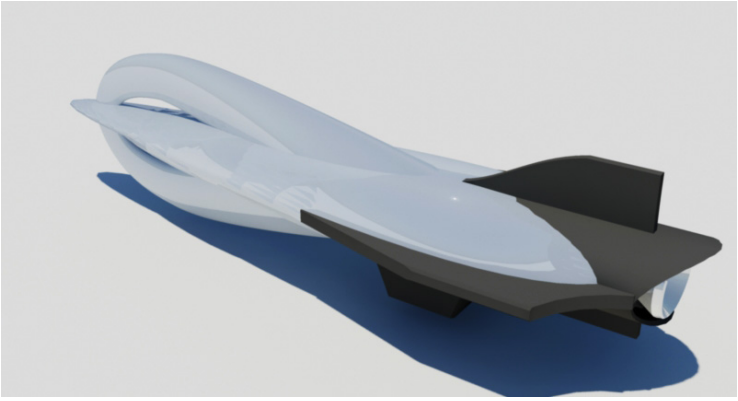

Figure 4: Advanced Thrust Engine KA1

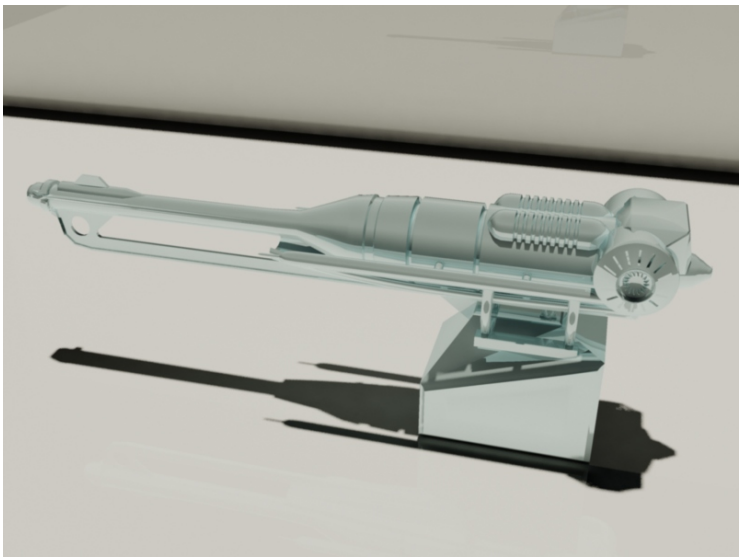

Figure 5: Laser Turret PXr

momentum. The guns will have a delay after each shot in which it will not be able to fire. This is to prevent that the player can shoot all his energy at once.

On the head up display HUD the player sees different ship monitoring systems:

Health: A colored rotating model of the ship that shows the health of each structure.

Energy: Different bars that show the energy consumption of each structure and total energy left in all energy supply units.

Cameras: (High target) Cameras can be attached to the ship in order to e.g. look behind the ship.

Weapon: (Status of each weapon)

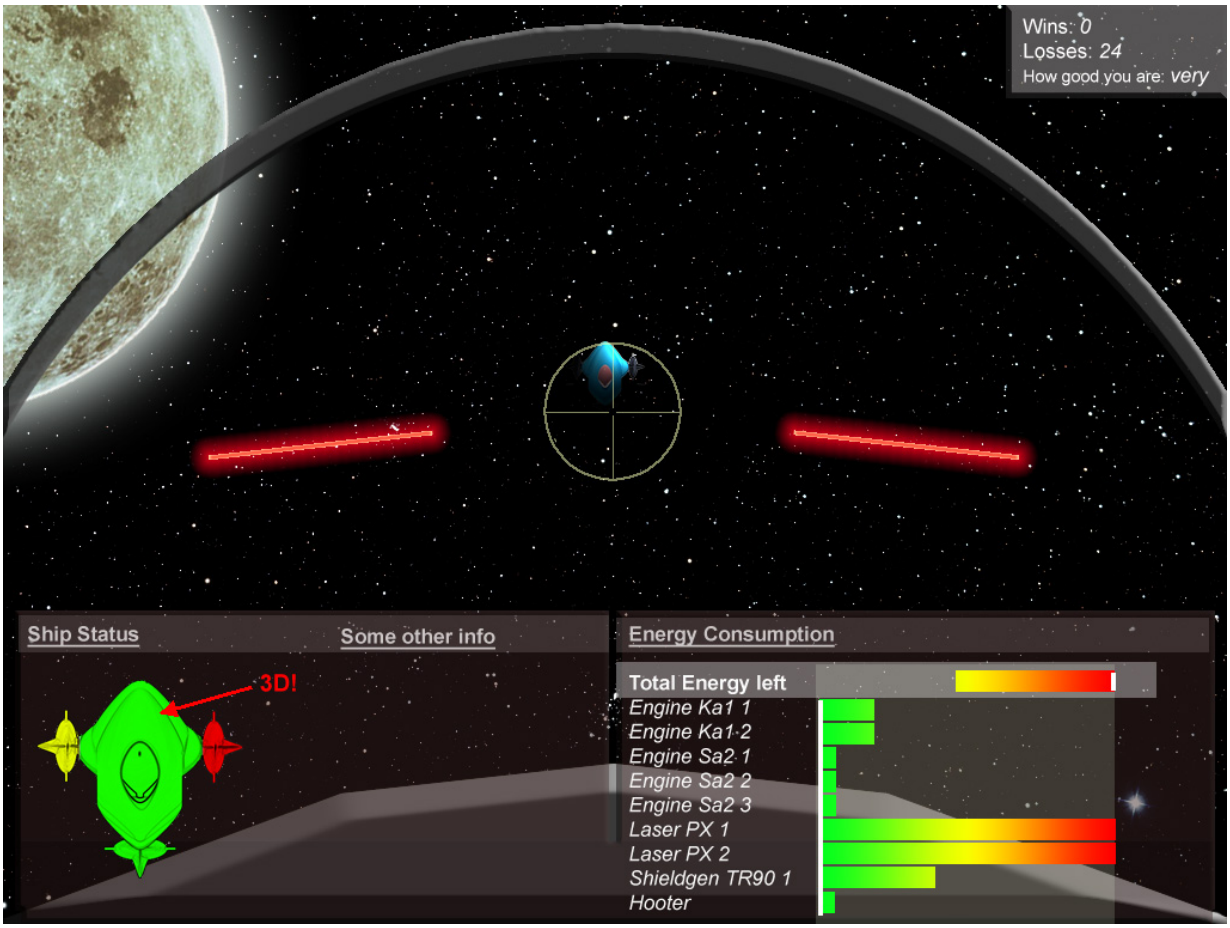

Figure 6: The Battle

1.4 Some Thoughts

Usually, editors allow players to build something up with parts that cost a predefined amount of money. We introduced the notion of 'modifications' instead of costs for the following reason: Obviously a death-star-laser cannon is by far more powerful than a tier 1 particle cannon. But in the editor each weapon costs only one modification to build. The point is that the death-star-laser also consumes by far more energy and is by far more large, heavy and vulnerable to attacks and therefore is not always the better choice. With this concept the player is forced to think more about his decisions instead of gradually buy the more costly parts as the game advances. Also, money and the fact that robots would buy structures instead of just collect them would fit less smoothly into the storyline.

2 Assessment

The main strength of the game will be that it will encourage the creativity and ingeniousness of the players to create the best space ship compared to the other players. The target players are people that have a basic (intuitive) knowledge of physics and can imagine a working space ship. They should be able to quickly learn their self-assigned controls and be able to adapt their behavior, if some parts of the ship are destroyed. The game will also automatically support some kind of paper-scissor-stone-principle, since a space ship will be strong only against some of the other player's ships, depending on their strategies. We consider the game to be a success if the players can be creative and try out several different strategies to beat the opponents, constantly adapting to each other.

3 Concept Art

Figure 7: Housekeeping Robot

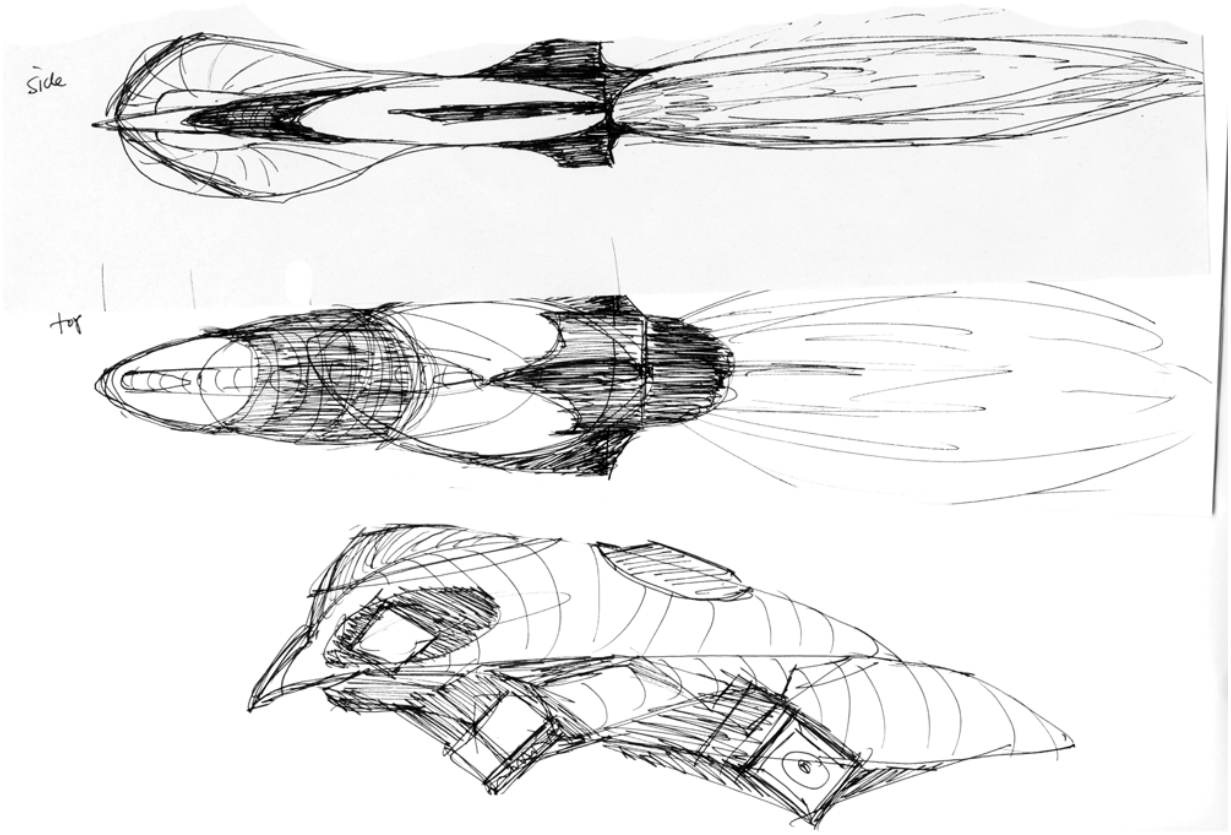

Figure 8: Cockpit and Engine

Figure 9: 3D Housekeeping Robot

Figure 10: 3D Housekeeping Robot with hair