INCREDIBLE BATTLE MACHINES

Game Programming Laboratory

Alpha release report

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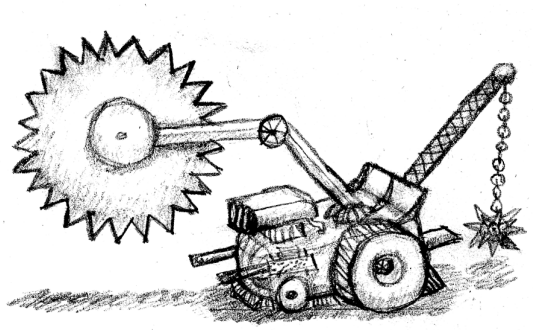
Revision: 1



Current state

By today, we have completely finished our desired target. Our focus is now on creating new content and making the things we already have awesome.

Important achievements

Map: We finally created a nice map. It consists of two platforms connected by a bridge. And everyone who thinks that bridges are boring can jump from one platform to the other using our custom made space-ramps. The whole level does match a space theme. There are meteors flying around and hitting the platform occasionally. This leads to a more dynamic environment and to the introduction of a little bit of randomness to the gameplay. We plan to integrate more details into the environment like spaceships travelling in the background.

Hazards: The game features its first hazard now. It's called the flame thrower hazard and is basically a fire emitter. There are more hazards to come in future versions of this level.

More weapons: The current weapon arsenal consists of the following:

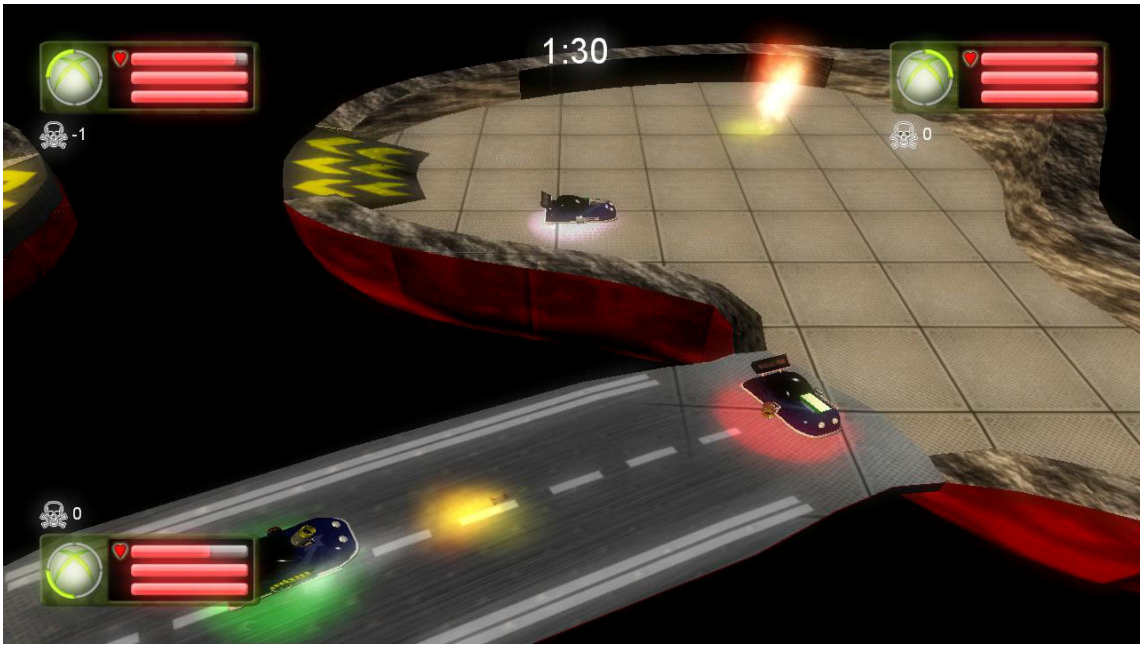
- Machine gun
- Mine dropper
- Missile launcher
- Grenade launcher
- Flame thrower (new!)
- EM-pulse (new!)

HUD: We finally implemented a nice HUD, which shows the users health and his score. At the moment this HUD consists of three bars per player of which there is currently only one used. The others were intended to display the ammunition or the loading state of certain weapons, but we are not certain anymore, if this is really needed.

Improved rendering: We implemented some advanced rendering effects like the bloom filter and we have also improved our particle engine and the shading. At the moment we are working on the normal mapping which has still some issues.

Hovering: Our robots are now no longer bound to the ground, they do hover now. This improves the performance drastically, because there are no longer lots of collisions in each frame, instead we just have to do one raycast per robot. To make this feature more visible to the user we have also added a light under each robot and to make it easier for the user to see, which robot belongs to which player, the robots do all have different colored lights.

Adaptive zooming: In order to be able to handle bigger levels without offending our great modelling work, we had to implement adaptive zooming. This turned out to really help the game, because the gaming experience becomes more dynamic due to the increase of motion on the screen.



Robot control: One of the greatest issues of our game so far, the robot control, is finally solved. We tried a completely new approach and after some fine-tuning, this really paid off. With the new control scheme, you do just have to specify the direction in which you robot should move using the left control stick and that's it.

Scoring: To make the game end, we've implemented a scoring system. Currently, you get one point for killing somebody and you loose one point for killing yourself (for instance by falling off the map). We've also included a timer which is initialized to 3 minutes at the moment. After this time expired, the player who has the most points is declared the winner of the round and the players are offered to start a new one.