Project 5D

Game 1: RRR (Rotating Robot Rumble)
Report written by Eevi Korhonen

The team

As per the name, we had five people: Henri Kuismin, Joni Rissanen, Jori Kemppi, Tero Koskela and Eevi Korhonen. Everyone worked on-site every day.

Schedule

We started work on Monday 7 June and worked straight til Friday about 5 hours each day. This post-mortem was written next Monday 14 June.

Original Game Idea

You are a robot created by a madman. You aren't programmed to turn around and the angle of your upper body determines where you shoot, but you're still a powerful machine of mayhem. Auto-fire will keep most enemies at bay, but you can also use missiles for more wide-spread destruction. Trample the innocents and explode the tanks, helicopter and jet-pack dinosaurs before they get to you.

Played as either single or co-op, the experience of mayhem and destruction in this NES-style game is nostalgic and fun. Destroy the world before the world destroys you!

Day by day

Monday 7 June
We came up with the idea in 15 minutes, and this time we paid attention to laying down the game mechanics clearly. Art finished robot and his walking animation, started work on backgrounds. Programmers made the walking and tilting controls work, plus health bar and scrolling, randomized backgrounds. We got a spiffy main theme too.

Tuesday 8 June
Sound implemented. We imported the robot animations and the background images into Flash and got a first look of what the game would look like. We got a rocking robot walking across Finnish suburbs. Navigation, score counter and health bar were implemented in code. Main theme was finalized as well as the first SFX. We have a problem with the bullet code, but we'll work on it tomorrow.

Wednesday 9 June
Bullet problem solved! We have enemies coming into the screen, getting blown up with nice explosions. Lotta stuff was made. Most of the sounds have been made (unless we come up with more), art still lacks death animation, some UI elements and screens. We might get the intro made with this pace. Code needs to implement enemy fire, civilian/object destruction and lot of small stuff.

Thursday 10 June
All sounds are finished, but one of the files is not co-operating with Flash, so that has to be redone tomorrow. Also, the art has finished all critical task, so we've had time to make more enemies, which means more sounds. All the main features are done, but there's a lot of tweaking and testing with the explosions, damage etc. All enemies are showing up, doing damage and dying properly.

Friday 11 June
Game finished! And this time it actually works! There are still few minor bugs, but nothing game breaking. Celebrations are in order.

Overall view

We're very happy with this game. The game is fun to play and also has some replay value. The retro style worked really well both art- and soundwise. The mix-and-match environment and monsters (Finnish suburbs, flying dinosaurs) evolved from the art design and we liked them so that we decided to keep them in.

We made a working, nearly polished game. There's always a few bugs but that could be ironed out, but that can be saved for later on.

Making of…

Code

This time we spent the first half an hour designing the code structure and division of work, which seems to have paid off. Coding with classes has also speeded up the process. There is still a bottleneck when it comes to implementing the art and sounds assets, which could be remedied by Eevi taking over that aspect if possible. Gameplay balance is still a bit off, and we should work on getting that better in future games. Naming conventions (btn_, snd_ etc) would also help to keep the library in shape as at the end of the project there is quite a lot to sort through.

A good point for the next project would be start using more functions to reduce the time spent looking for the right spot in the code. Also, what bothered a lot of players is that you had to click on the screen to get the game to work. A simple load bar and font embedding are also on the "to-do" list as they could be recycled through the games.

There were small bugs that still could be fixed, but overall were very pleased with this game.

Graphics

The biggest thing in this iteration was that with the now-defunct producer turned artist, we had a lot more work hours for the art, which took a lot of stress of our main artist. The 8-bit style was nice to work on, and also was a lot easier for the assisting artist.

The scale of objects was bit off, and that affected the balance of enemies too as it was tied to the design concept of bigger enemies equals bigger danger. No complaints except we couldn't fit in all the art into the game.

Sound

Sound production went smoothly again. The only problem was with the original menu music file that wouldn't import to Flash despite the same encoding as the rest of the sounds. Jori can't remember what he did to fix it but somehow he did it. The main problem was that he didn't have time to test what the sounds were like in the final version (which is why the background music is at such a low level). Next time we should also aim to get a working game with the sounds for our sound designer to test the sound balance.

Production

I tried the task wall again, this time by telling everyone about it before the production. All the tasks were set up in three categories: art, sound and code. All tasks that needed to be done were placed there above a five-day timeline. Once a task was finished, it was moved to the timeline to the day it was finished on. Thus everyone could see what was still to be done and how much time there was to do it. We could also discuss more easily the importance of tasks, as the more important tasks were placed higher on the wall. This system worked really well.

Personal report: Eevi Korhonen

Monday 7 June

Tero came up with another weird but wonderful game idea: co-op sidescroller shooter mayhem with robot protagonist. The hook would be that the other person controls the movement of the legs (lower body) and the other person the shooting (upper body): The concept is quite easy so we can start working on the single player, and if we have time, implement the co-op. I like the idea in many ways: its scope is small, genre familiar, mechanics simpler – so something we could actually make in five days. Plus the team is very excited about it, so the motivation is high.

I also started to make myself more useful to the team and started to work on the art side. Today I taught myself how to make 8bit art and managed to make a car and its animation. It's fun to ponder things like lighting and ponder how to convey the idea of an object with limited pixels.

Hours: 5
Total: 5/25

Tuesday 8 June

Today I made some destructible objects, fingers crossed that we have enough time to implement them. To mimick the NES style we scale up the pictures, so the pixels will look bigger. Had to redo them completely because I'd forgotten this.

We got first glimpse of how the game will look already on the second day, which is a testament to a) the benefits of making a game with smaller scope b) the team's motivation. It's already fun even though some of the fun is due to the bugs/unimplemented features (e.g. one that allows the robot to tilt full 360 degrees).

I had to leave early for IGDA monthly meeting in Helsinki. Will make up the hours tomorrow.

Hours: 4½h
Total: 9/25

Wednesday 9 June

We've been discussing the design a lot: how will the missiles work, what damages the robot and how much etc . Some of the features will be limited by time and programming skill, but is interesting. The UI took a new shape today; all of the meters are at the bottom of the screen, which looks more logical to me.

Today I made two civilians and their animations, a police car and some destroyed enemies. I also designed the instruction screen, but can't make it as we haven't decided which keys we're going to use. This time the instructions should be so simple and short that we could fit them in the first screen of the actual game.

I'm starting to remember to scale the pictures, but today I also discovered it's a good thing to remind yourself of colour theory. A green helicopter will not get a purple tint even after it's destroyed.

Hours: 5½h

Total: 15

Thursday 10 June
Today I made Rambo, a school bus and lot of small stuff. Tried making a blood explosion but failed. Instruction screen. More fuck-ups with colour.

The pace of production has slowed down, or so it seems, because half the team has finished their critical tasks. Programmers have a lot to do; implementing and testing all the sounds and art in addition to all of their own tasks. Just trying to see to it that no little task is forgotten and then we have to rush it again tomorrow.

Hours: 4h
Total: 19
Second week / RRR

Personal report: Tero Koskela

Mon 7 Jun

We started the day by talking about the previous game and the process of making it. Probably the most important thing we learned was to focus on a previously defined genre and make a rather simple game, instead of trying to figure out what the game actually is about. I also talked about the process of creating the graphics and what went wrong last time.

We discussed ideas for a new game and decided to go with my idea: a game where two players control a robot that's trying to walk as far as possible without falling down while gunning down massive amounts of enemies. The controls where simplified a little from the original idea (no using the mouse for aiming and shooting), and we started working.

I started my work by designing the player character. We talked about the most effective way of animating and moving the robot, and decided on a two-part design that allows the top half of the body rotate separately from the bottom. I also made some preliminary background graphics.

Tue 8 Jun

I started by streamlining the robot graphics a bit and drawing the final background tiles (the faster-moving buildings and trees in the front and the slower silhouettes in the background). In the end of the day I also designed the logo and title screen for the game – it turned out really NES-like, and although the game hasn't really been made in a NES-specific style, I thought it suits the game well.

Wed 9 Jun

In the morning I designed the dinosaur, tank and helicopter graphics and made some pretty primitive animations for them. The game needs lots of explosion graphics, so I googled up some sprite sheets from Gunstar Heroes and drew explosion sprites using them as reference. I created some bigger explosions by moving around multiple smaller explosions, too – they really do look surprisingly retro.

In the afternoon I also created the basic UI elements (rotation, health and distance counters) and sketched some frames for the intro movie. I stayed an hour later because I'm leaving early on Friday. The game is looking pretty awesome already!

Thu 10 Jun

We noticed the dinosaur sprite is really quite big and everything else is pretty small, so I created one more enemy to bridge the gap, an armed blimp. Rad! The dinosaur needed a death-animation, so I made a pretty gory one. Then I finished the intro movie screens and typed in the dialogue (an amazing story, I must say). In the afternoon I made some more backgrounds, the powerup indicators and an explosion animation for the powerup.

Fri 11 Jun

This day was mostly exporting some of the new backgrounds for use in the game. I also made a destroyed version of the blimp and made the blimp ready for the game. I made a gory blood-explosion for the people in the game, but in the end we didn't have time to put it in the game, and sadly we didn't have the time to put the blimp in, either. In the end I had pretty much nothing to do on Friday, since I couldn't help with the code and there was no need for more graphics, and I had to leave a bit early again.

After seeing the finished game on Sunday I can say it looks and plays pretty great. There is a slight balance issue with how busy and crazy the gameplay should have been in my opinion – right now you can walk and walk without dying, and since the enemies fire at you pretty randomly they don't really seem too dangerous. It takes a little too long for the robot to die from overtilting his body, too. With a little tweaking I'm sure it'd be as crazy as I originally imagined. The graphics turned out kind of early-90's pc-game styled, which looks fun. All in all a huge improvement from last week on all fields!

Personal report: Jori Kemppi

Day 1: Monday, 7.6.2010

So, we decided to make a robot themed game. I figured I'd make something electro influenced for the theme music, and after Tero mentioned Nightsatan – a band I was already familiar with – as an idea what he thought the music could sound like, I had a clear idea what I was going to do. The theme is quite energetic, influenced equally by speed metal and fast-paced game soundtracks such as Doom and Speedball. After 3 straight hours of listening to overdriven synth sounds, I can say my ears are badly in need of some rest now! So, time to call it a day, and get working on the sound effects tomorrow.

I already have an idea about the menu screen song, in case we need one. Something slower, perhaps something between John Carpenter and Manowar. 100% synthetic, of course.

HOURS: 12-16

Day 2: Wednesday, 8.6.2010

Short day today. Didn't get to school until after the lunch break, since we thought there's not much point in me just hanging out until at least some of the enemy design and graphics work was done.. got started on some of the combat sounds, but didn't really get that much done.

HOURS: 13-14

Day 3: Wednesday, 9.6.2010

Did a longer day, and got a lot of stuff done! Pretty much all the combat sounds are now done, and we now have music for the menu screen and possible music for the game over screen. There might not be much to do concerning sound effects anymore. Still, the main theme still needs a lot of mixing, so overall my work is still far from done.

HOURS: 9-12, 13-16

Day 4: Thursday, 10.6.2010

So, as I said, almost all the sound effects that needed to be done at that point were finished, so I didn't have much to do in that department. I decided to go home early and do a more balanced mix of the main theme, since I can do that better at home with monitors than at school with headphones.

Tomorrow, depending on whether some new enemy types have appeared, I'll have a bit more work with the sound effects.

HOURS: 9-12, 14-16

Day 5: Friday, 11.6.2010

Last day! The rest of the team had a few new sound effect requests. I completed those, and then decided to take a lunch break and see if they still have some work for me when I get back. They didn't. When I got to test the finished game, I did notice that the main theme music gets a bit drowned by all the explosions and general mayhem. However, I did like the overall chaotic-but-balanced mix of the sound effects themselves, so I decided not to try to fix what's not really broken.

HOURS: 9-12

Personal report: Henri Kuismin

Day 1

Today we started our new game which is (for now) called Robot Revenge. We used about half an hour planning the game which seemed like a good idea after the first game which was not very well planned in advance. After planning together with the whole team, we actually used another half an hour planning the class structure and the programming process with Joni. All this planning seems to work very well since we got a lot of things done already during the first day.

I programmed some basic movements for the player's robot character using some place holder graphics and got all of that pretty much as well as I can right now. I also started to think about the characters shooting and bullets but there's still a lot of work to do with those. We used a lot of time in creating a good structure for our programming classes which really makes the whole process a lot easier and so far I didn't have any major problems with anything.

Hours: 5

Day2

I got a bit frustrated this morning when I was trying to program our robot to shoot some bullets and after a couple of hours I had to give up with all that code and start doing something else. I managed to finish the robots movement and aiming, which was surprisingly easy after failing with the previous task. Then I started to think about the shooting code again in the afternoon and didn't quite get it done yet but it's lot better now after I started again from scratch. Not the best day for my individual work, but overall we are way ahead compared to our first game's schedule.

Hours: 5

Day3

Everything is starting to look right already with the game. Of course some things are still completely missing but the most important parts such as movement, collisions and shooting are now programmed. I started today by getting all the bullets and shooting to work and added explosion effects on them. Then I added all the UI elements into the game screen although the health meter will still need some changes in it. The game seems to be more finished already after three days than our first game ever was.

Hours: 6

Day4

I managed to get all of the explosion to work in the game in the morning and continued in the afternoon by fixing and balancing some previously done parts of the code and making it possible for the game to end. Most of the time I used in small improvements in the program and there's not many things missing from the game at all anymore. I'm starting to be sure that the game will be finished tomorrow.

Hours: 5.5

Day 5

We got the game finished! We had a lot of small things in the code that we needed to enhance today but I think we got most of them done and the game is reasonably balanced and working. I created some new code for the robot so that it will start losing health if it's upper part is rotating too much for too long and also all the code for the special weapons, their use and effect on enemies.

In the end we had some new enemy graphics that we didn't have time to add into the game but they were not vital for the game so we decided to work on the more important things. Also we didn't manage to get the font that we were using to work on a computer that doesn't have it already. Overall I am very happy with this game although as always it could have been better with some more time for testing and balancing.

Hours: 4

Personal report: Joni Rissanen

7.6.

This was an excellent day! We planned the coding much more carefully than with the first game, and started coding. We managed to learn the class-system of ActionScript 3.0, which makes coding incredibly easier as now both of our coders can work at the same time with different files. Of course there's this main class "GameLevelScreen" again and we both have to do some little changes there, but we have quite working way to merge our codings.

I managed to make the health bar (and the basics of hit point system for it), title screen, and moving and overall working of the background – well enough for one day. But the most important thing today is that we finally learned the right way of creating classes and working with them.

(5 hours)

8.6.

I got the theme music working in less than 5 minutes, which is faster than in previous game (where it took more than a day). I also made the coding for credits-screen and game over –screen, score counter and starting a new game after dying. I learned to avoid public static functions and work with dynamic text fields, which both are surely important lessons.

(5 hours)

9.6.

After a bloody battle against the ActionScript, I finally managed to create, control and remove enemies. Their behavior is still quite simple, but it should be easy to modify when someone tells me the right mathematical functions for different ways of movement. For now I have only made two different kinds of enemies, and another one of them should be able to shoot at the player, but that should be easily done. I tried to make flying enemies look better when they die and fall to the ground by rotating them a little, but it looks quite crude (which isn't definitely a bad thing, since the overall style of the game seems as silly as that rotating).

Looks like most of the code is done, and most of the undone work is just adding more enemies and actions for them. I learned some new things about using classes, arrays and collision detections.

(6 hours)

10.6.

Most of the enemies have been added to code and their behavior is almost finalized. I started to add sounds, too, and it seems that mostly I just copy+paste my way through the final version of the game.

There’s actually very little to tell about this day. I don’t remember learning anything new, except for better way of making randomizations. Looks like the game will be done tomorrow.

(5 hours)

11.6.

Done! Sound effects are added, scoring and enemies are balanced and all the other miscellaneous stuff is now finished and polished. Only two more enemies were not implemented, but I can live with that. Also the font of the game was not embedded, since none of us knows how it’s actually done.

But the game seems to be great. At least I like it. We managed to finish it just in time, since there were still some new things to learn during making this game, which might not be such a problem with the next game.

(4 hours)