

Project 5D

Game 3: The Hammered Fists of the Ninja

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

Breaking the usual habit, we started work on Wednesday 16th, worked til Friday, had the weekend off and finished the game on Tuesday 22nd June. This report was written on Wednesday 23rd June.

Original Game Idea

You are a ninja, looking for a party to crash. You've heard there is a party at the top of a tower, so with your ninja skills you intend to get there. Climb the wall avoiding the obstacles, drink sake to replenish your health, but too much sake can mess up your sense of direction and summons more hallucination demons to attack you. At the top of the tower, the party awaits you!

Day by day

Wednesday 16 June

Eevi presented a game idea about a drunken ninja who needs to climb back into the ninja fortress unnoticed. We spent some 20 minutes refining the idea. Tero finished the ninja character and all its animations and started making the background tiles. Henri worked on making tile arrays and Joni put together the menus and the background scrolling. Jori finished both theme and title music.

Thursday 17 June

We decided to change the idea about having all the floors randomized as this was causing too much coding trouble. Instead we'll have the levels drawn beforehand, which allows us to also design them beforehand. The movement, collision and drunken effects are all working. Art department has finished all the background tiles and started on the enemies. Sounds plodding along well as usual.

Friday 18 June

The first level was tested, but there's still trouble with the arrays. We've had to chop the first level in two, because Flash can't handle it all at once. We might have to chop it even more. We've got monsters appearing and getting destroyed, but their movement is not very natural. We've still managed to implement some art and sound assets already.

On the art side, all the monsters are done sans animations though. We'll do them later if we have time. UI elements (health bar) is done, too. Only some sound effects left for next week.

Monday 21 June

We had some hope of getting the arrays to work, but it looks like we'll have to make some horrible duct tape solution tomorrow to get the basic gameplay to work. All the other stuff is doing well; we had time to animate the monsters, do the backgrounds and menu screens, and sfx is almost done. We had to scrap a few features like preloader and intro

Tuesday 22 June

Everything else was finished by midday basically, but we couldn't get the obstacles to work. At the last hours the collision detection functions went completely mad, so we decided to scrap them in order to get something out. So we only got one level and it hasn't got the obstacles working so you can walk over

everything. You can still climb, drink and throw shurikens. We so gotta make a deluxe version of this game. The gameplay is probably bit off too as we haven't had time to pay any attention to it.

Overall view

It's not finished, but it's not far from being a good game. We're bit miffed about the collision problem and it was frustrating that after five days of work we got no solution.

We learned a lot, mostly about our and Flash's limits, but it's the kind of knowledge you can't get any other way. Probably not making a tile-based game, at least not one where the tiles move.

Making of...

Code

We decided to try our hand at making a tile-based game with multidimensional arrays. The idea was to put the background tiles into an array and then easily generate new levels with new arrays. The obstacles were, in the end, invisible movie clips that were laid on top of the appropriate tiles. First we tried to determine the collision by how much the character had moved, but that didn't work out. With the movie clips we had better success as we got the first half of the level to work, but for some reason the movie clips ended up in completely wrong places and/or we weren't able to remove the old movie clips when the level changed.

We also wanted to randomize the levels, make them out of 6x6 blocks, but we couldn't get it to work. Then we wanted to draw the whole level beforehand, but Flash ran out stage space. The we decided to chop the levels into predetermined bits, but then we ran into the aforementioned collision problems.

On a positive note, we learned something about sound channels. Like in the last game, we had the monster sounds play on even after the level had ended. The problem was that we couldn't turn off the sound channel if there wasn't anything in it. The solution for the next game would be to try to put more stuff in the same sound channel or put a looping sound on every monster (even if the sound was inaudible). Event listeners could also be used. We were also very pleased how the drunk effects worked out. It looks pretty nice without being too complicated.

Using functions also made reading and understanding the code lot easier. Though Henri and Joni had some disagreements or differences of opinion of whether the functions should be placed before or after the update functions.

We had planned to make a preloader and explosions into the game too, but the preloader wouldn't update and we had same problems with the explosions as with RRR. Unfortunately we didn't have time to figure out how we could solve it, because Henri was stuck trying to figure out the array/collision problem.

Next time we would need to know better what our limitations are, but the thing is that we aren't able to do that until the end of this project 😊

Graphics

This project was rather easy on the art side. Everything went smoothly and we were able to make everything on time. Because of the tiled structure, we didn't have to spend too much time on making the backgrounds.

The only "flaw" that was in the game was that the ninja was scaled too much, so his pixels are larger than that of other assets.

Sound

Sound post-mortem later on.

Production

The task wall tends to break down slightly at the end of the production. The small bits are harder to track, but at least all the major stuff gets done by the fourth day. The producer still needs to keep track of all the details and testing (like sound testing, which we finally managed to do on time).

Taking out the collision and that way the whole obstacle climbing feature was disappointing, but it was the only quick solution available to my mind. As an afterthought or doubt, maybe we should've redesigned the game halfway through or done something to make the bits we had work in another way, but it was hard to turn the boat around when the problems weren't there straight from the beginning but came in around halfway. We trusted that we could fix it by the end of the run. Maybe we just were too optimistic. Hard to tell.

Personal report: Henri Kuismäki

Day 1

We started our new game called Drunken Ninja today. We used a couple of hours in the morning thinking about what the game would be like and how we could manage to make it. We were at first trying to think of a way to create all the game levels in a way that we have been doing it before in other projects but in the end decide that I will try to learn how to use multidimensional arrays to create the levels as tiles.

I started by getting the movement keys work so we can test everything more easily. No problems with that but then I started to try and get the level creation to work and used the whole rest of the day struggling with it. I managed to get the tile based start screen to appear on the screen but there are still a lot of problems with making them move and interact with the character. Maybe I'll get it to work tomorrow.

Hours: 5 + 30min

Day2

I got the tile map that I started yesterday to work really fast in the morning. Then I spent some time enhancing it and making it interact with the character. I made it possible for the character to shoot shurikens and started coding its animations. I used most of the time today to make it easier for me to add the levels into the game later.

Hours:5

Day3

I was still working all day on getting the level maps working and it seems a lot better already even though not quite finished. I found out that there are huge problems with the way the game detects collisions between the character and the background tiles and I think I will have to create the whole thing again in another way. It might take a lot of time but I hope the game will be finished during the last two days.

Feels a bit frustrating to try and learn something new and hard while having to hurry up to finish the game but then again, I have learned a lot and it might ease the rest of the process that I know a new and better way to do some pieces of code.

Hours:4 + 50min

Day4

I am still struggling with the level maps. I tried a completely new approach on the whole thing and got it mostly working in a lot better way but still couldn't figure out how the levels should be changed. The problem is removing and adding the arrays that are used for creating the map. I think we might have to simplify the whole thing tomorrow unless I come up with a solution first thing in the morning. I guess we are not going to use this kind of level programming next time.

Hours:5 + 15min

Day5

Well we got some kind of game kind of ready. I'm not very happy about the outcome of my work on this game though since I spent most of my time on something that never started working. I don't think I will want to use the same strategy on any level design on the other games after trying to get it to work for about five days.

I really liked the idea of this game however and everything else (mostly done by other people) except for the obstacles in the game seemed to work very well and I really like the graphics and sounds just like in the previous games.

I think I did learn something while working on the game even though it did not all work as it was supposed to. Also I know from the beginning what I should not try to do in our next game.

Hours:5

Personal report: Joni Rissanen

16.6.

We started by planning the code and decided to add more functions to clarify the code. The most difficult things in coding should be level generation, movement of the player character and effects of drunkenness. Henri began with the level generation, which I gave up willingly, and I started planning the effects of drinking too much. I didn't start coding it yet, since first I made the screens for main menu, credits, game over and victory, background and health bar. Now most of the easy tasks should be done and tomorrow I can concentrate on making the drunk effects. Since the transforming of the screen seems to be quite complex operation, I thought that playing with camera position and brightness should be something to begin with, and later I can make controls work differently if player gets really drunk. I'm going to think about more effects today.

(5 hours)

17.6.

Today I made two effects of drunkenness – random movement of camera and random bright flashes. That camera thing caused some problems, since our map tiles aren't added in the stage the way I thought, and it had to be made differently. But now it works and looks fine enough. Bright flashes effect was more simple and finalized with only smaller problems, which were easy to overcome at the end.

Now the music is also added to the menu and the game itself.

(5 hours)

18.6.

This wasn't exactly very good day. I managed to make the enemies appear, update and die away, but I didn't get their movement as I wanted it. I asked help from my brother since the problem is mostly mathematical and he studies mathematics (people who study things are often good at things). Hopefully he solves the problem during the weekend, even though he doesn't know even as little as I know about programming.

There's still a lot of work to do. We thought of getting the game almost done by Monday so Tuesday would be dedicated to fixing bugs and minor changes, but I believe we still have too much work for Tuesday. We'd better hurry, or the game will end up like the first one.

(4 hours 50 minutes)

21.6.

I made a preloader that doesn't work as it should, and I also gave up making the explosions and hope that Henri might make them tomorrow, since he has done the explosions in the previous game too. What I managed to do today was adding more sounds, updating background, fixing the throwing of shurikens, adding the whole drinking thing and updating the correct movement to the enemies.

We are not going to finish this by tomorrow.

(5 hours 10 minutes);

22.6.

We almost finished the game. All the sounds were added, game can be won and lost (like never before during this course!) and almost everything was finished and polished. Only things left undone were the actual working of the tiles (so the game is too easy), there are no explosions and some sounds are messed up so they won't stop playing even when the game ends. Also some enemies are not removed, which I find strange.

So the game is not all done, so it isn't very good. Player can just go straight up and win the game. And since I didn't manage to stop all the sounds properly, when the player wins/loses the game, the sounds still play to the end. As a solution to this problem I decided to experiment playing multiple sounds on the same sound channel, and if it works, I'll be using fewer sound channels in the future, since they are easier to handle. The main problem with the sounds was that the channel gave an error if there wasn't anything playing in there and it was stopped, and since (as far as I know) one can't check if there's a sound playing in the channel or not (without complex coding, where I didn't have enough time or skills to), one can either leave the sounds playing or crash the whole show.

Lesson learned. Less sound channels.

And definitely no tile-based games. Luckily, I didn't have to take part in that very much, since two-dimensional arrays make my head hurt, and with larger doses, explode.

Probably the next game will be better. And a bit more... completed.

(5 hours)

Personal report: Tero Koskela

Wed Jun 16

Eevi presented her idea about a game where a ninja has to sneak back into his castle after a night out. The ninja is drunk and experiences hallucinations on his way up the wall.

We chose the visual style to be as SNES-like as possible, since in the last game the pixel graphics ended up being a bit too big to draw. We decided some other key elements of the visual style and I started working by designing the ninja character. I gave him a drunken look in his eyes and tried to make him look like he was lit by moonlight from above. This time around I added a one-pixel outline to all his animation sprites, which makes him stand up a bit more from the background. I also looked for some pictures of Japanese samurai castles and drew some preliminary background tiles. To set the mood I had the movie *Ninja Death* I playing in the background.

Thu Jun 17

I spent the day drawing all the background tiles and obstacles for the background – that's four 100x100 pixel backgrounds with tiles and small openings and stuff, a window, a hole in the wall, a small roof-kinda thing sticking out of the wall, lanterns, a huge balcony, a statue and the end tiles for the left and right edges of the castle wall. That's a lot of stuff! Then I exported my ninja-character pixel art into a flash movie clip and drew about half of a lantern-demon that'll attack the player in the game. Tomorrow I'm hoping to finish the lantern-demon and draw all the art for the distant backgrounds: trees, mountains, the sky and the moon. And maybe some UI graphics, too. And the logo I have sketched. And the end-of-the-level Super Mario pastiche graphics. Maybe not everything tomorrow.

Fri Jun 18

Turns out I got most of the stuff done! I started by finishing the lantern-demon (no animations yet). All the UI graphics we need for the game screen so far is the health/drunkenness counter, so I looked up some pictures of Japanese scrolls and created the counter in that style, with a bottle of sake as the pointer. I spent the later half of the day drawing the title screen background and logo and creating the basic templates for the distant backgrounds, so on Monday I can just add some lights and shadows to them. My part of the game is going very well and on schedule, too bad I can't help with the code...

Mon Jun 21

I finished the trees, the mountains and the sky today, along with the intro screen art and buttons. I also made the drawing for and the buttons for the game over screen. I drew the top balcony and roof for the ninja castle, so all the backgrounds, enemies and character animations are finished now. Tomorrow I'll have time to create the little movie that plays at the end of every level, and possibly something that plays if the player wins the game.

Tue Jun 22

Today was mostly filled with random finishing touches to the game and creating some graphics for the website and the blog. I also made the little end-of-level animation (thanks to Eevi for doing the tedious bit with the letters appearing one by one), and the screen that's shown in the end if the player wins the game.

The game looks good as far as graphics are concerned (as I'm writing this Henri and Joni are still working with the code). The only thing that bothers me is the scale of the player compared to the background tiles, it seems I've made a miscalculation and the scale is a bit off – probably not even enough for anyone except me to notice. There was a bit of a mistake by me with the distant background graphics too: the clouds don't line up properly, since I didn't realize the wall won't cover them on the top.

Right now it seems the game will again be published unfinished, but I'm getting used to the idea. Off to new challenges, we'll finish this game if we feel like it some other time.

Personal report: Jori Kemppe

Day 1

So, this time the theme would be ninjas.

Like before, I spent the first day on music. I found a good source for free soundfonts, so I downloaded a bunch of traditional Japanese instruments. Often Japanese traditional music is quite sparse and ethereal, but since we're working on an action-oriented game, I knew it had to be something more tight. I put some shakuhachi, shamisen and koto melodies on top of a steady taiko beat.

For the menu music, I got the idea to do something more dance oriented. I combined some slight Daft Punk influence (sidechain-compressed bassline and vocoder vocals) with some more traditional Japanese instrumentation.

Day 2

I've had a Zoom H2 recorded at my disposal since the first week of the project, yet for some reason I haven't really used it for anything yet. Not that it would have been much help with the tanks and choppers and explosions in RRR. This time the enemies are going to be hallucinatory monsters, so I'm going to have more freedom. So, I recorded some throat noises and shrieks – done by myself – and after some mixing, distortion, pitchshifting and time stretching, we had the screams of a demonic bat!

Day 3

Made the sounds for the face monster today. I mixed together five differently panned layers of my own pitchshifted voice to achieve the constant droning groan (grone?) of the monster. For the death sound, I again used five channels, each with me making a grunting noise.

Day 4

Today I made the sounds for the lantern monster. Although it's obviously a paper lantern, the sprite somehow looked like clay to me. I played around with the clay association and got the idea of using the tsuchibue, a Japanese clay flute, to make some kind of thin droning sound for the monster. I couldn't find the exact sound of the tsuchibue anywhere, so I decided an ocarina would be close enough. I made an atonal looping "melody" with a heavy reverb sound, making it droney and even more atonal. For the death, I made three variations where the melody breaks down.

Day 5

While I was happy with the hectic atmosphere with the sounds in RRR, the fact is that the whole thing was damn loud. This time, after I had made a somewhat balanced mix of all the sound elements, I decided to normalize the entire thing to -6 dB. Since there'll be a lot of stuff going on soundwise, it can't hurt to leave a little headroom.

Personal report: Eevi Korhonen

Wednesday 16 June

We started working on an old idea of mine, which I changed a bit to suit our timetable. It's about a drunken ninja, who needs to sneak back to the ninja fortress unnoticed. He's raging drunk and hallucinates that demons attack him while his climbing his way to the top of the tower.

We started off with this idea, but halfway through the day. Basically doesn't change the gameplay, but allows us to build more levels if we have time. And with the tiled structure we should be able to do that. Confidence at its best on the first day on the project.

We were bit unsure in the morning if we'd be able to pull off some of the things in our original plan, but wisely we dropped out or skirted around stuff we wouldn't be able to do.

As the extra hand in this production, I took the responsibility of designing the levels or the bits the levels would be comprised of. It was easy enough with the tiled structure as I just had to draw a 8x6 grid on a paper and plot a reasonable and somewhat interesting obstacle course(s) for the player. It took me some time to start drawing because I didn't get this in the beginning: just plot a course (and maybe an alternative one). With all the different drawings on the paper, I could do a playtest by selecting a random paper and imagining how it would be to play it. That way I could find out if I'd left any accidental dead-ends etc.

We also thought about whether the player should be allowed to travel downwards, but with the current design we thought best to leave it out.

Hours: 5h

Total: 5/25

Thursday 17 June

Worked on the level design this morning, as the programmers came to the conclusion that it would be easier to draw the complete levels instead of randomizing the floors. I had to revisit the my "floor plans" and try to arrange them so that difficulty curve (which is also going to be affected by the monster frequency) would be appropriate and the levels somewhat interesting despite the repeating elements. A challenge definitely. Though again, the pen-and-paper approach made this a lot easier.

I had to do the last one from scratch, where I tried making it in reverse order: starting from the top (the most difficult) and going downwards. It seemed to work well, though I think I should probably make it still a bit harder. If we get to make the three levels, that last one should feel bit like a boss level.

Right at the end of the day we got a new problem with the transparency of the bitmaps in the arrays. The drawbacks of trying to learn something new. Hopefully we won't have to scrap the whole array idea now that the programmers have been working so hard on it.

Also managed to make some art today. After some research, I decided to make a flying, detached face after the Hannya mask. It took longer to make than the assets in the previous game, mainly because I had to wrap my head around oriental art style. My first attempt led me to make a very western style demon. Luckily Tero helped me to get back on track. Future worry is that animating the monsters will be troublesome as they are quite complex, will see if we can make it.

Hours: 5h

Total 10/25

Friday 18 June

I made the first level by putting numbers in arrays, which was fun in a weird way. Unfortunately the arrays are still giving us trouble, but Henri is doing his best to plug the leaks. So despite the task wall being quite empty, we're actually still struggling with one that was supposed to have been done in the first day. It's hard to guess these things beforehand, but I guess it's our own fault for testing something we weren't familiar with. At least Henri will have learnt something about arrays and tile-based games at the end of this. It's a bit annoying to think that we probably won't have much time to balance the game, but if we'd be able to fix the major bugs, I'll be happy.

Made the bat demon. Tero helped me with the lighting again, but otherwise getting more confident in my abilities. Not too much though. I also made the shuriken, which shapeshifts slightly in its animation but there's no time to start fixing that.

Left early to go get something to eat before work. Will make up next week.

Hours: 4h

Total: 14/25

Monday 21 June

Despite the weekend's rest, the mystery of the arrays has not revealed itself unto us lowly mortals. All our different approaches to the arrays: randomizing, drawing the whole level, invisible movie clips – nothing works! I sense a chewing gum solution ahead, unless Henri manages to solve the problem in the morning. It's frustrating to see him trying so hard to solve that problem (which he's been working on admirably for the last four days) and not get any breakthrough. Okay, maybe an understatement – lots of small steps have been taken but it seems like for each small step forward we have to take one giant one backwards. At least this time we're prepared to cut down levels (and focused only on the first level) and maybe even changing the concept a bit. And morale is still up, though there's frustration in the air. But at least it's not despair.

Spent the day mainly making all the monster animations, which was a challenge but a fun one. Learned a couple of new tricks for Flash and Photoshop.

Hours: 5h

Total: 19/25

Tuesday 22 June

At midday we had half the level working correctly but the latter part had its hit boxes (separate movie clips loaded on top of the appropriate tiles in the array) completely messed up. I thought we could at least show that but then the first half stopped working too. Damn frustrating. Makes me wish we had an on-site Flash expert we could call to help in these kinds of cases. We suspect part of the problem could be due to SVN merging or overwriting the code, but we can't be certain.

Can't help to think afterwards that maybe we should've tried another approach already last week, but as Henri was so determined to crack the problem and he had several different ideas on how to get it to work, I trusted that he could get it to work. I can't blame the design this time as it was simpler and clearer than in Poltergeist, and on Wednesday it seemed like we had a good grip on the different gameplay elements (codewise). And I sincerely hoped that if we could master tile-based games, we could make another game based on that, but now I'm more wary about the idea.

On the art side I helped make the level ending, implement assets, finish the credits and instructions screens. There wasn't much left to do in the afternoon as it was likely that we wouldn't be able to implement the other two levels.

I also revamped the first level's design a bit, mainly cosmetic changes. As another afterthought, I realized I should've also made a complete map of the first level, not just on post-its, but on a larger sheet so I could see the entirety of it. The post-it approach made each bit of the level nice, but I didn't realize that as the screen scrolls with the players, they're going to see more than just one bit at the time, which messed up my plans. A level design lesson learned.

Hours: 6

Total: 25/25