

Project 5D

Game5: Frankensteam

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 working on Monday 12th and worked five days straight til Friday 16th July. This report was written on Monday 19th July.

Original Game Idea

World domination through a cadaver that's been brought to life! That is Dr. Frankensteam's Evil Plan! Unfortunately, he must now try to get his minion out of his maze-like castle first. Give a chain of simple commands like climb, hit, use and jump to your unwitting minion to guide him out of your steampunkish maze of a laboratory. Rise up the steam vents, knock down laboratory assistants and do anything to get to the exit door!

Day by day

Monday 12 July

We came up with the idea by trying to think of something where the player would manipulate the environment instead of the main character instead. Idea progressed into a game where you program the character beforehand and let it loose in the level. Working title "Frankensteam" was born, because it had to be set in a mad scientist's lab.

We finished UI elements and basic movement (walking, jumping and turning at walls) plus main character and some of his animations. The theme and menu music seem to be also well on their way.

Tuesday 13 July

Triggers are working mostly, the "programming menu" (where you choose all the actions for the character) is really neat, and resetting and switching the levels is looking promising. On the art side, backgrounds and GUI is finished (except for the title, gameover and credits screen), we just need to place it correctly. Sounds making progress too. Level design as well as the details of some mechanics have been refined, but it's still going to take some testing to find out whether they'll work out (of course)

Wednesday 14 July

Today we put together our first level in code and boy did that create a lot of work. We had to sort out hit boxes, jumping and all the positioning. Also the different trigger possibilities have exploded, which is going to cost us some time. Not too much of a problem, just time-consuming – which then again is a problem. Art side doing well, despite art assistant spending a lot of time just compiling levels and improving the design. Main character and his animations are finished as well as that of the lab assistant (though not yet exported). Sounds plodding along. Maybe we'll finish at least two levels.

Thursday 15 July

Programming has been fixing a lot of issues that we found out yesterday. Also finished some new features like speed control and tutorial pop-ups, which is pretty nice. We got one level functional in code, but that build lacks most of graphics. Also lot of animations and sounds finished, so on that side it

looks like we're going to finish well in time tomorrow. Let's just hope no code problems appear (but they always do). And still no name for the game.

Friday 16 July

Shouldn't be surprised now but Friday afternoon was once again hectic panic as programmers were fixing bugs and putting stuff together as fast as possible while art and sound can do nothing but watch and hope for the best. So, we only managed to finish one level, and even that might have some bugs in it, e.g. the tutorial pop-ups stay on the screen unless you click on play button. We did not have time to test what happens if you put completely random commands in, so there might be few more lurking there. But at least it shows what the game is about, vertical slice style.

Overall view

We all feel that Frankensteam has the best potential of all the five games. It's still disappointing to see only one level finished, especially when we had at least two more prepared and many more in design stage. It's hard to adjust expectations to fit 25 hours, especially when you can see in your mind's eye how the game would look like when completed. But this one we'll definitely work the hardest on once we make the deluxe versions.

Making of...

Code

First two days of the project were a bliss with everything going smoothly, but then we got into the harder stuff and ran into problems. The problems were not insurmountable, but they slower us down. The triggers and their effects were quite complicated. As an afterthought, we should've made a level editor that anyone could've used, but that would've taken too much time. Level editor is basically a must for any game with more than one level. This game should've also been done as a tile-based game, but after the ninja game we were hesitant to work with that again. But for future development, a tile-based level editor would be a good way to go.

We learned a lot from this project too. We used more separate classes and public functions, which was good. Some time and sometimes data was lost in Flash with the merging and different versions, which is still bit of a drag.

Graphics

The scheduling for the previous and this game were pretty good. All the major stuff was done by Friday, which left time to work on the blog pics. The UI looked really nice, and for the deluxe version it would be nice to take everything toward that direction for a more unified look. Another thing would be to look at the visual hierarchy. All the manipulatable objects are done with the same colours, so nothing stands out too much. More visual cues for the player on what can be used and what can't.

Sound

This time there weren't too many sounds to recorded first-hand, so had to do with the sounds you could find free on the net. Took some time to find some that were of good quality. But learning how to make good SFX from these using some effects was a very good lesson.

Production

There was a problem with all the different versions that should've been addressed earlier; some sort of plan of what is going where. Our organic chaos of merging whatever was on hand was easy to manage but caused confusion and lots of work on Friday afternoons – a pattern that I should've realized earlier.

Personal report: Henri Kuismin

Day 1

We started the last game by developing the games idea together and figuring out together how we can start making it. We used more time on the planning this time since we didn't have a clear idea ready but after that the coding process started quite smoothly.

I made a character, which uses very simple AI at the moment and just walks into one direction until he hits a wall and then turns around and continues the same way unless he finds a trigger for some other kind of action. I made a piece of code for the character that checks if he hits any wall or ground objects in their arrays and then continued by creating a trigger array to determine the more complex actions. I only got one of those actions ready today and will continue working on them tomorrow.

Hours: 5

Day2

The game is going on quite smoothly even though there has been some tough parts to code in the game already. I got the game to switch and reset levels today so we will not have to worry about it that much later on when we add the different levels and their graphics into the game. I also managed to add more trigger actions for when the character starts and stops climbing in the game.

I started coding in some switch triggers that will have an effect on the other objects of the game and got some of it working already but I will be continuing with that tomorrow morning.

Hours:5

Day3

Today everything seemed a bit more complicated and time consuming as I started building our first level. I got most of it done but I still have to continue with it tomorrow morning. I got most of the trigger types working but there's still work to do there as well.

I think that we will not have that many levels on this game at first since it takes so much time to build them one object at a time but I still think that this way it will work better compared to our Ninja game, where I tried to build them with tiles and ended up with pretty much nothing working.

Hours: 5

Day 4

I got a lot done today with the game but also found a few mistakes in the code and noticed I had done some things much harder for myself by making the level creation very complicated. Then again I tried making a better level editor when we were making the Ninja game earlier and it ended up being too complicated that time so maybe it is better to have less levels that actually work than many of them that don't work at all.

I finished linking some animations to the code today but we still had to leave some of them for tomorrow and I think we will very busy during the last day again.

Hours: 5

Day 5

The last day of making this game and I had some big problems with the code. I noticed that for some reason the game objects don't react with the player as they should and only got it fixed about half an hour before we ran out of time. Because there were so many other things to fix, we couldn't finish the tutorial and other levels and ended up with just the one we started with.

Again we can probably get the game to be more finished and add more levels and content if we use some more time on it later on. Still, I'm quite happy with the game and I think the concept on this one could work well even with a larger game.

Hours: 5

Personal report: Joni Rissanen

12.7.

The final project, the display of our skills, the sum of everything we've learned during this course... Frankensteam.

At first this looked like something too big to make in one week, since there's not much code we can loan from previous games. But as the plans started to become clearer, everything seemed smaller and it might be possible to finish this game.

In previous games we made lots of classes to extend movie clip class, but now we decided to replace it with sprite, so the game should be lighter to run.

I started making the triggers only to give it up an hour later, and Henri made them. I coded the buttons that player chooses actions with, and I managed to make an incredible knot from three classes by making function calls from each one to each one. At the moment I still remember what I was doing, but as we end the working today and continue tomorrow, I may not remember the logic of this mess and begin the new day by wondering how to untie this function call / parameter monster.

If the previous sentences didn't make sense, it might be because I'm confused as hell with all this code and lack of oxygen.

(5 hours)

13.7.

I have tamed flash!

I finished the coding for the action selecting buttons, but then Tero and Eevi made up a better idea of working of these buttons, so I started a little renovation of the code. At first it seemed that most of the code should be made anew, but after a while I realized how to make it work with less coding. Now the buttons work like a dream.

I'm terribly proud of myself. This game has been the most complex to code this far, as it's only the second day, and I've had to make function calls and parameter hells like never before, but still almost everything works at the first try.

I also learned to write this diary during the day and not after it, since now I still remember what I did before the lunch. It's a little victory, too.

Play button is now made, worked at the first try and is perfect as any in its simplicity.

Reset button was mostly made, only the resetting system was left undone. Henri knows more about that so he will finish it.

At the end of the day I began working with the end level screen which appears when – surprise surprise – a level is finished. It takes variables like used playtime and how many lab assistants were hit from the game class, which I'm not that familiar with. Those variables should be integrated with the level ending code, game class and end level screen, and I need Henri's help with that. It should take about half a day, I suppose, to make this work as it should, but it's tomorrow's problem.

(5 hours)

14.7.

A good day wasted. The morning started by making the level ending and resetting a level to work, and it didn't actually take more than about 30 minutes. But the rest of the day wasn't that good. For about 2 hours I tried to figure out why the text of the level ending screen wasn't working, and finally I decided to e-mail for external help. Hopefully I get an answer before Friday. The problem is that the text just doesn't simply show up.

After some minor fixes (like combining the reset button and play button as one, and polishing the outlook of action buttons) I started to make pop up windows for tutorial level. Coding it was simple and followed some kind of logic, but it seems that Flash didn't quite get that right. The windows just won't show up. As I write this, I may have figured out a few reasons why it might not work, and will try to fix it tomorrow.

(5 hours)

15.7.

I finished the pop up windows, and from now on I will remember that the position of those sprites and movie clips are determined by the position of their owner classes, so if there's a class with position at the lower side of screen and a movie clip inside it is positioned to the center of screen, it goes too low to be shown on screen since the y-axis begins at the y-position of the owner class. I already was aware of this, but now I will also *remember* it. Hopefully.

Then I added some voices, which didn't take much time. I also made changes to buttons, added the slider to show which action is used next and added the frame to the game screen, and updated the level ending code to remove these new systems that were added. I also made the fast forward button and it's functioning.

After that I started making the doors, and gave up. I'm not completely aware of the working of this level system, since it's 100% made by Henri, but I tried to figure something out. Even as I tried, I just couldn't get it working. We left the doors away from the game.

A big part of the day was somewhat wasted. Besides the coding of levels there's not much to be done, and I don't know much about how these levels are coded. That's quite frustrating, since I'm somewhat pinned at times, and unable to make anything incredibly useful here.

(5 hours)

16.7.

It's as complete as we got it, which is not much. But as a prototype this shows the idea of the game and introduces its awesome control system, which distinguishes the game from masses.

The day was full of little fixes and some bigger renovations. There wasn't much to learn, but a little piece of hell of work to do with extreme hurry.

My head is as empty as nothing in the universe of nothingness. I can't remember anything specific that I could tell about this day. At morning it was clear that we can't get everything done, but at least we got one level and as far as I know, it works.

If we had completed the game, which we will probably do eventually, it would be great. This current version only shows the idea of the game, at that's enough for a five day prototype. There wasn't much code we could have copied from previous games, and this is definitely the most complex to code.

I like this game.

(5 hours)

Personal report: Jori Kemppe

DAY 1

This time we're making a puzzle game with a steampunk theme. Which already makes certain element I'll want to use in the music a bit more obvious – lots of mechanical percussion sounds, kind of like "industrial lite". As for how I want the music to sound apart from the percussion, it's not that obvious, whether I want it to sound dark (there's also a Frankenstein horror element in the game) or not, energetic, moody, mysterious, or what? Best just to put a bunch of instruments in the project and see what I can make from them, I guess.

DAY 2

Finished the ingame music yesterday, and then the menu music today. There's a certain amount of mood dissonance between the two pieces, with the ingame music being bright and energetic (if not cheerful) and the menu music being dark, brooding and full of vinyl crackle effects. I'm not bothered by the dissonance myself, though, since the ingame music does somehow sound consistent coming after the menu music.

DAY 3

This game contains lots of levers, steam pipes, and things that go clank. So, I won't be doing as much of recording this time, since there aren't that many broken steam pipes or rusty old levers in our school. Fortunately we have the Internet! I did manage to gather a palette of public domain metallic/industrial sounds, that proved to be quite versatile when manipulated with filters and pitchshift/timestretch effects.

DAY 4

Recorded the few sounds that I have to record myself. Jumping/climbing sounds, and the fighting sounds of both the monster and the lab assistants the monster faces. Apart from that, I worked with prerecorded sounds, as yesterday.

DAY 5

So, almost everything was done by the morning already. Did a couple of clips and then went on to adjust the final balanced mix. Again, I'm quite happy with the end result.

Personal report: Tero Koskela

Mon Jul 12

For our final game we wanted to make something a little bit different, so we started thinking of a game where the player has to control a character indirectly. The original idea was quite similar to our first game, so we decided on making this one a puzzle game, where the commands are selected in advance and the player has to watch the result and correct the chosen commands if needed. We chose a vague theme of steampunk and Frankenstein and set off to work.

I started by sketching the reanimated corpse the player is controlling, which turned out quite a difficult task since the graphic tiles in the game are really small to allow more complex levels. By lunchtime I was done with the character design.

After lunch I started animating the character, again starting with the walk cycle. It took me some time to get the frames smoothed out, but the result might just be the best one yet, so it was probably worth it. I also made the frames for his attack animation and sketched some background graphic tiles.

Tue Jul 13

Today was a really packed day! I spent the first half of the day finishing most of the background tiles, let's see here: a pipe, three machines, levers, floors, walls, ladders and a few random objects.

After lunch I started working on the UI graphics. I continued with the steampunk theme and used brass-like tones for the graphics. First I designed the outer frame of the screen and then started thinking about the buttons. After discussing the buttons with Joni we decided on a row of 12 buttons, where in the beginning only the first one is active, displaying a plus-symbol. Once it's clicked a menu is pops up where the player can choose the desired command and another buttons becomes active.

For these we needed the basic buttons in two states, active and inactive, and also symbols for each of the commands. I also designed the button which starts the action and changes into a reset button while the level is running. We ended up also adding a slider that notifies the player of which of the commands is active while the level is running.

Wed Jul 14

Today I started by making a climbing animation for the main character. It took a bit of time to get him look like he really was climbing, since I had to turn him a bit so that his face won't face the player. This basically meant drawing him from scratch again. I also exported all the animation frames and created the animation movie clips in Flash.

In the afternoon I started working on the lab assistant, which was the other character that needed to

be animated. By the end of the day I had finished designing the character and created a small four frame walk cycle for him.

Thu Jul 15

Today I finished working on the lab assistant character's animations and exported them into Flash. I had some difficulties with the animation where he falls down after he's been punched by the main character, but in the end it turned out pretty decent (it does look a bit like he's slipping on a banana peel, but it's close enough, I guess). We also needed some more buttons for the UI, so the frame had to be adjusted to make room for one more button to speed up or slow down the game.

We also decided on the way the tutorial should look and agreed on pop-ups that would tell the player about the commands he's about to choose. At first they were meant to be hovering next to the button when the mouse is over them, but that would have created some problems if there would be too many buttons, so we had to drop that and move the pop-ups to the center of the screen. We also decided on putting a little tag over the door where the player must lead the character to.

Fri Jul 16

By Friday I was finished with everything else, except the title and credits screens and the intro movie. I started by making a few sketches and ended up making everything look like it was drawn with some crayons on dark gray paper. I'm not too sure if it really catches the feel of the game, but I wanted to give at least some story to the game and this was an easy way to tell the player about what's really going on. I suppose if we end up working on this game a bit more I'll try to give the overall design a more steampunk-like feel.

After I was finished with the title stuff, I started working on some graphics for the release of the game. This time, I decided to mock up an eighties video game advert. With some spray-paint textures for that airbrush feel, over-exposed screenshots off a tv screen and some big fat Futura Bold it looked authentic enough.

Again, looking at the finished game I'm a bit underwhelmed. The graphics look nice and a lot of what I made has made its way into the game, but the UI got a bit messed up again, with popups never leaving the screen and so on. The buttons in the credits screen are a bit misplaced and some other stuff looks a bit weird, too. All in all, I don't think it's really awful, but it'd have been nice to work on it a bit more to iron out the little bugs.

Personal report: Eevi Korhonen

Monday 12 July

It took about 45 minutes to come up and refine this game's idea, and working title "Frankensteam" was born. It's about a Frankensteinian monster that the player controls using simple commands to try and get to the level exit. Hardest thing (in addition to the several new engine bits we have to code) is the level design, but at least we're doing something different.

Spent the day designing the mechanics and levels, which is harder than I thought. Balancing fun and frustration with limited amount of elements and coming up with varied levels is surprisingly hard. Must try to refine 3-5 good ones plus tutorial.

Hours: 5

Total: 5/25

Tuesday 13 July

Not much to say for today, except it was hot and rather monotonous. Discussed the game design and mechanics with the team, trying to make sure that everyone's working with the same idea in mind. Also refined the level design by adding possibility of having the switches control doors in addition to vents. Made a difficult end level, which is still bit tricky as I don't know how the jump system will work with the steam vents and where he'll land. Also imported some of Tero's UI graphics into Flash.

Hours: 5

Total: 10/25

Wednesday 14 July

We put together our first real level (sans lab assistants and working steam vents) to test the triggers, and boy did a lot of unexpected issues come up. Sorting out the triggers is not to mention positioning everything. Even though I've tried to sort out the game mechanic problems beforehand and see all the possible pitfalls, you can never see everything until it's right there on the computer screen. It's hard but useful lesson. I'm gonna have to take up the work building the levels code-wise too, and it's easiest for me because I've designed them so I can tell if something is off. Plus it takes a damn lot of time taking up/finding all the coordinates if someone else has to do it. I've pretty much memorized the 32/64 multiplication tables.

Again slight refinement of level design but mostly I started to put together the levels in Flash. Lot of false starts and redos but I've got time. Also some extra bits here and there when something needed to be done. Tried to help with another strange code problem Joni was having, but not much use when you don't know the code. We forwarded problem to Mikko. Still as hot as hell in here.

Hours: 5

Total: 15/25

Thursday 15 July

We hit programming problems, but even though we cleared most of them, we lost some time and we might not finish as polished version as we hoped. We had to axe the switch-controlled door feature and simplify some others, but luckily we got plenty of levels without that feature.

I'm still very hopeful for this game. I think it has lot of potential and the best game mechanics, which we've been neglecting slightly in our previous games. Again, we got a lot of assets and extra levels that are not going to be in the launch version, but we'll just have to wait for the autumn and finish the game then.

Today been exporting animations and putting together levels also in code, but the build is still on programmer's computers, so I can't actually test them. Just putting in coordinates and correct names and such.

Hours: 5h

Total: 20/25

Friday 16 July

We ran into bugs in the afternoon. First the switches were acting up, then we didn't have time to fit in the ladders (luckily that one level didn't have them), and I can't even remember the rest. Guess we fell in love with the game, and became a little blind to the deadline.

Got bit too excited and tried to organize Flash's library. Unfortunately, the folder system wasn't as clever as I thought. If I moved an image that was part of a movie clip, that image would disappear because the path had been changed. And copy-pasting movieclips that had their images in a folder would result in copying the folders, which couldn't be merged (at least in any sensible way). So the library, instead of being nice and organized, got bigger and more jumbled. Afterwards I started thinking that we should've agreed on that beforehand. Also the merging on the builds was bit difficult. Henri and Joni both were working on different bits of the code, which is good, but the merging always takes time and gets bit confusing. Then they would also have different versions or bits of the graphics, so there should've been some system there.

Bit disappointed that we couldn't finish a more complete game, but it helps to think of this as a vertical slice. And anyway, this game has been a great learning experience especially for our programmers. I've got great hopes for the deluxe version. This could be the most commercially viable of these five games. And I've got a pocketful of level designs ready, plus the two semi-finished ones that got dropped out.

Hours: 5

Total: 25/25