# Identifying code smell and refactoring is always a bit of an art, and somewhat of a personal journey. Which code smells and problems did you run into while building your project, and how did you deal with them?

This assignment was a challenge. I have been writing, thinking and refactoring day out and day in. My code is not perfect, but my game WORKS. I have written the code myself and I am proud of it.

I wanted the game to be smooth. It should really be like the original fly the copter. You click to start, and the thing just flies of without "delay" and when you die you can see why and where.

There was a problem with the transaction from Menu to Play. The blocks were different. That is why I have functions in my World-manager that creates block. They create standard size blocks, to make the transaction look good. This hoverer created a problem with my game-over state which extracts the current setup from my BLOCK-managers. So if the player dies the first meters, there will not be any blocks in the game over state.

I also thought about adding different classes for the player, depending on state and for the object pool depending on wich object it was. Because the objects recuire different input/have different arguments. But I chosed to do it with one class. I thought it would save me some time. I now control the behavior of the classes with Booleans and help-functions. This is not optimal, I know. But I wanted the game to work in first hand.

There was also a weird bug with my roof (a borderblockmanager). It became glitches between the block after a time. I do not know why! But I solved it by overlapping the blocks abit more. The problem never occurred in the floor.

I also had a problem understanding the CBTypes in Nape. This took me two days to get around. It was a quit easy problem when I understood. I have never used the static, private, public and so on, so I missed the concept of static, so I created a new CB-type for every object. That was wrong.

I had a great problem with the Particle system. I managed to get it on screen, but it only lasted for like half a second. I did some research but then I decided to abandon the Idea and just go with an image instead.

Because I wanted the game to use the same objects through the game I created some of the objects outside the states. This caused problems, because it made it hard to destroy the states. But I think I managed to destroy everything.

# What (if anything) did you choose to do differently than what Ulf demonstrated in the videos? How is your solution(s) better?

Well there were no videos to this assignment, but I used some from the previous course that was uploaded. The object pool is pretty much the same as in Ulfs videos. And I am using the same pattern (sort of) in my Game(fsm). I also use the key-class.