

Rhythm Game Reflection – Tymoteusz Walichnowski

- **Time management:** How much time, how many sessions, split between art/code/design, total vs estimate
 - I estimated I would have spent 10 hours on this project. When in reality, I spent 17 hours on the coding of the project, 1 hour on the design and around 1 hour on art assets.
 - There were about 5 main sessions of me working on the project, with the last one taking the longest.
 - I could have managed my time on this project way better, the final hours were a rush that I had plenty of warning about. I overestimated my own abilities and the amount of work it would take within the last day.
- **Work flow:** the order in which things were done with dates
 - 26/02/24 - Design Doc started
 - 01/03/24 - Design Doc finished
 - 04/03/24 - Template game started
 - 08/03/24 - Worked on code (basic GUI)
 - 15/03/24 - Worked on code (beat movement)
 - 18/03/24 - Worked on code (beats and arrays)
 - 19/03/24 - Created Score Sprite sheet
 - 19/03/24 - Worked on code (multi-line support)
 - 20/03/24 - Worked on code (combo work)
 - 20/03/24 - Created experimental colour branch
 - 21/03/24 - Created final art assets (Hit buttons, heat mode overlay, background, tv)
 - 21/03/24 - Worked on final coding features (hit text, start/end loop, hit zone class, tv etc.)
- **New Technologies:** What new stuff you learned about from other or by yourself
 - I didn't learn many new things about SFML while working on this project. Rather, it reinforced what I already knew. I got more confident in using GitHub, especially branches and merges, although I didn't have to deal with merge conflicts during this project.
 - Looking at Ian's project I did learn more about vectors, it may be cool to include physics in future projects to go out of my comfort zone more.
- **Problems encountered:** Planning mistakes, elusive code errors, design re-designs

- I didn't realize I was supposed to commit my design document, meaning I automatically lost 10% of my mark and was dealt a blow to my morale regarding this project (no matter how good it would be it would never be worth 100%).
- I was struggling getting the x position of the beats at the start, until I realized I was trying to get the x position of the beat object, when I should have been trying to get the position of the circle shape
- A similar problem happened with the hit text array, where I should have been returning the sprite. This problem also happened to me within a programming lab, so it is unlikely that I will be repeating it now that it has happened to me 3 times.
- Having 4 beat lines that weren't objects proved to be a bit cumbersome, as there was a lot of repetition needed within the code, especially for collision.
- A similar issue happened with the hit zones, but I re-designed them into the hit button array that is currently used within the project, it is much more efficient and cleaner to look at.
- The default constructor was not working on the hit text array (never being called), I had no idea how to fix it but it fixed itself.
- There was a light visual bug on the beat circles when I switched the colours of the beat circles where the sides seemed to be getting put below the beat lines in a subtle but distracting manner each frame. This is one of the reasons I stuck to the default SFML colours, although I think it still might be visible at points.
- My game crashed in the higher tempos when attempting to draw the score message and I'm unsure what caused it.
- I wanted goodbye dialogue but I couldn't get it working no matter how hard I tried due to the manner of the game loop and how dialogue was started in the setup, if I had created a more robust start and end screen system I probably could have gotten it working.
- **Lessons Learned:** What you would do different(better) next time
 - I have to manage my time better, as doing projects last-minute is something I struggle with a lot and creates an undue amount of stress.
 - I would also make sure to triple check what work needs to be done and how, as I thought having the design doc seen by Pete was enough. I hadn't realised I was supposed to commit it onto the GitHub before a set date. This was one of the biggest lessons that I learned with this project.
 - I'd think more about what objects need to be arrays and when to use them.

- I'd think more about my game loop, the start and end conditions of the game should probably be decided much earlier than when I decided to implement them, it caused me a great headache trying to get it to work.

Video Link:

[RhythmGameVidTW.mp4](#)