

COMP 4959: Lab 3

For this lab, you are asked to implement an animation of Langton's Ant using Rust with WebAssembly.

Refer to the following Wikipedia page for a description and a demo:

https://en.wikipedia.org/wiki/Langton's_ant

Basically, you have a plane consisting of squares that are either black or white and an ant. The ant is facing either up, right, down or left. The movement of the ant is determined by 2 rules:

- if it is on a white square: turn 90° clockwise, flip the color of the square it is on, then move forward one unit
- if it is on a black square: turn 90° counter-clockwise, flip the color of the square it is on, then move forward one unit

Start with a grid of 17 by 17 all white squares with the ant at the centre facing up. You may stop the animation if the ant goes outside of the grid.

Submit a zip file named `lab3.zip` containing your `lib.rs`, `index.html`, javascript & possibly other files. More details on what to submit will be provided. You will also need to set up the system and do a demo of your program in class. Maximum score: 15