## PART 1

## How to unknot a Haken's Gordian knot

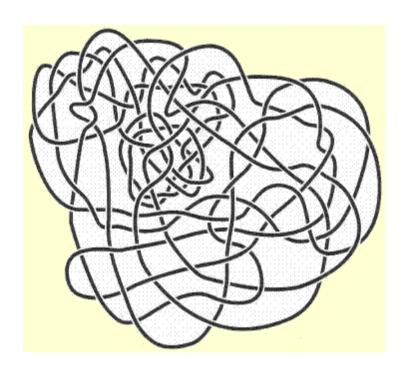
## Colour's meaning:

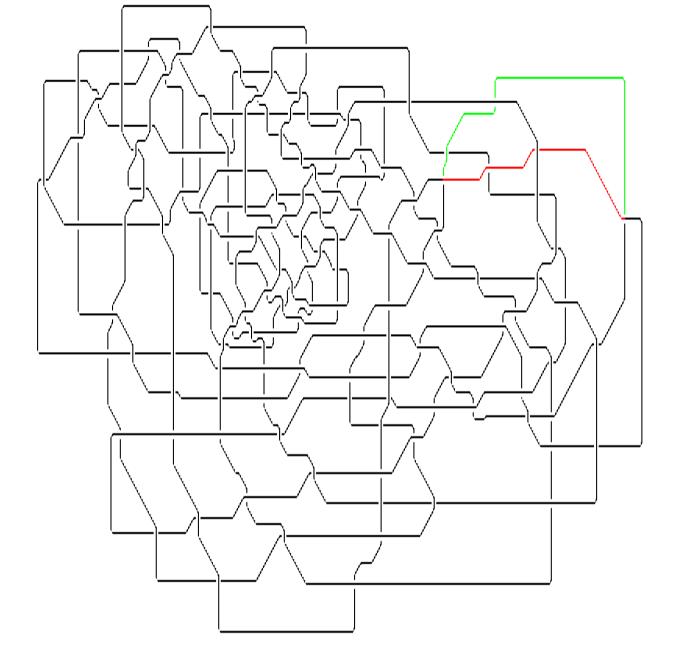
FIGURES 1 and 2: The green path and the red path swap places and their two crossings are eliminated.

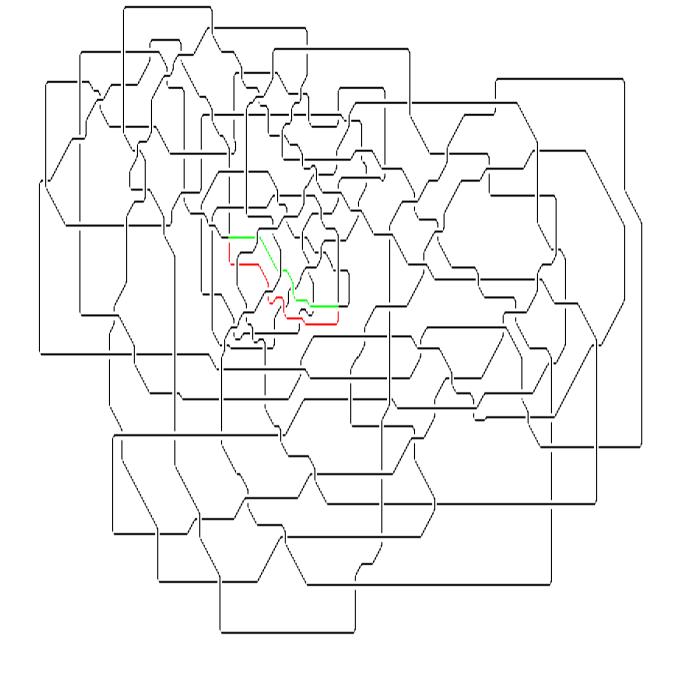
FOLLOWING FIGURES: The red path must be transformed continuously and must pass where the green hyphen is, above or below, according to the direction of the green hyphen.

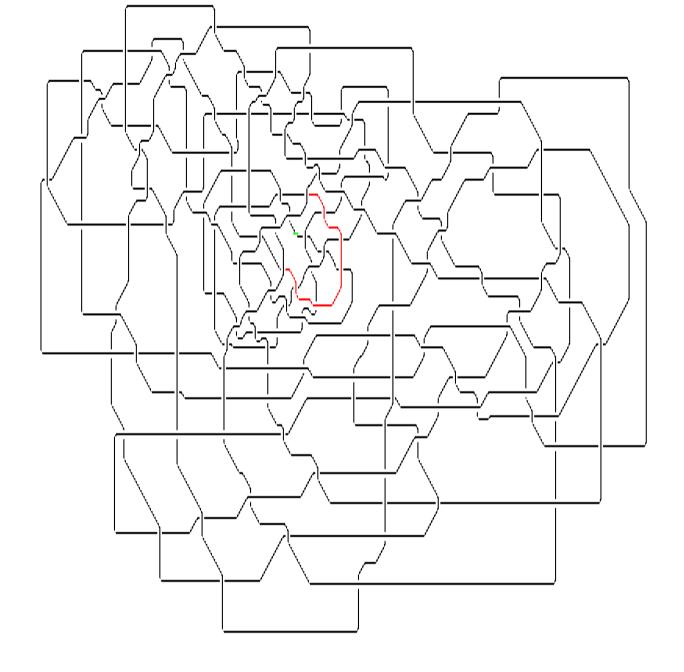
If there is no green hyphen, the red path will be transformed continuously in the same region.

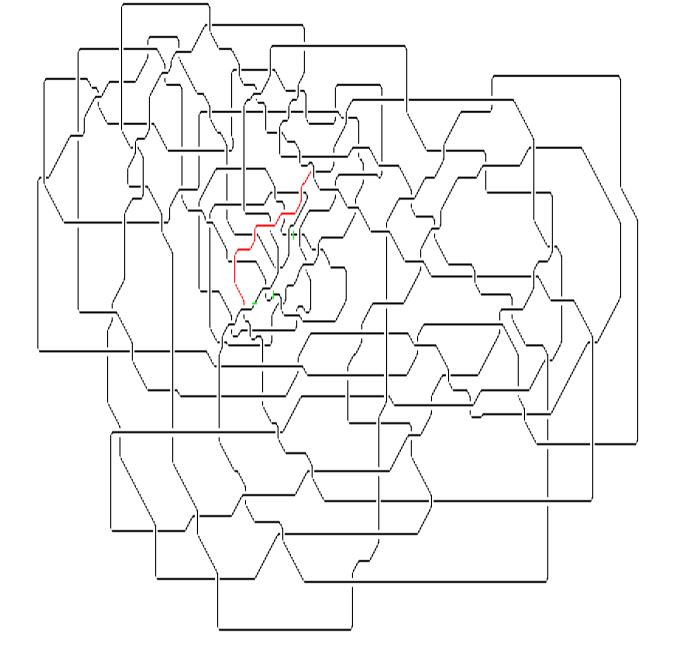
Every red path starting and ending in the same crossing is eliminated.

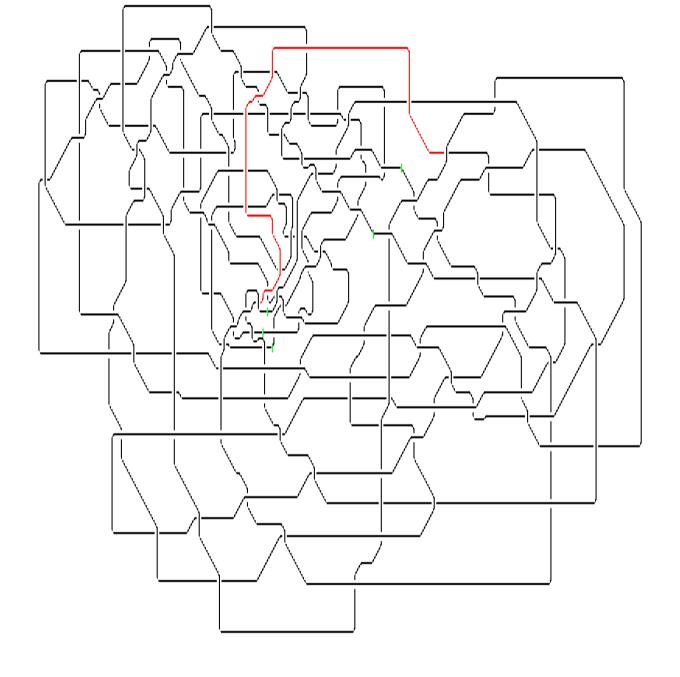


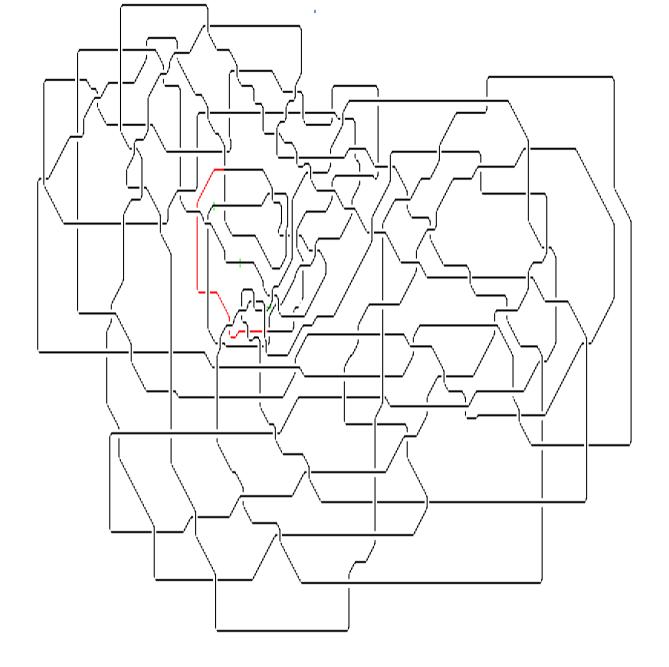


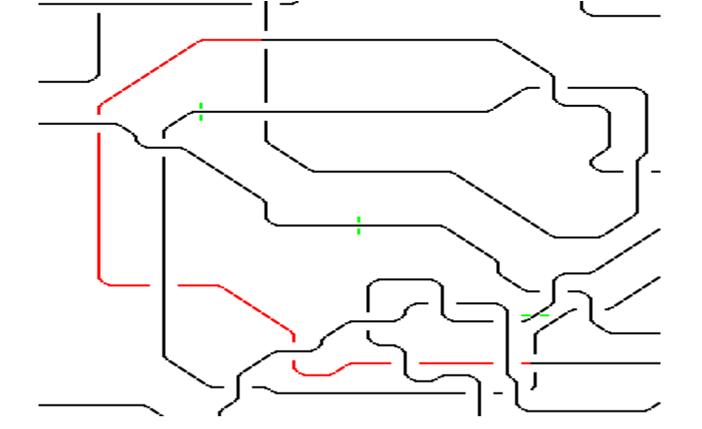


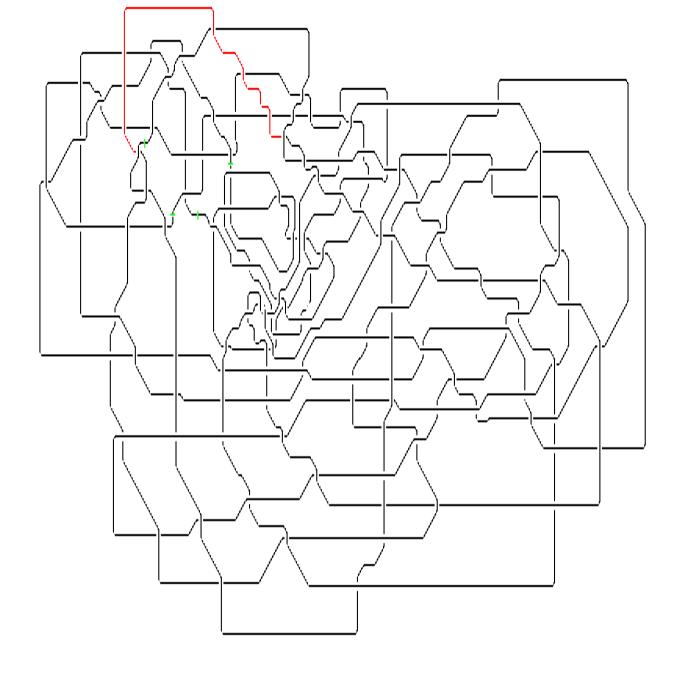


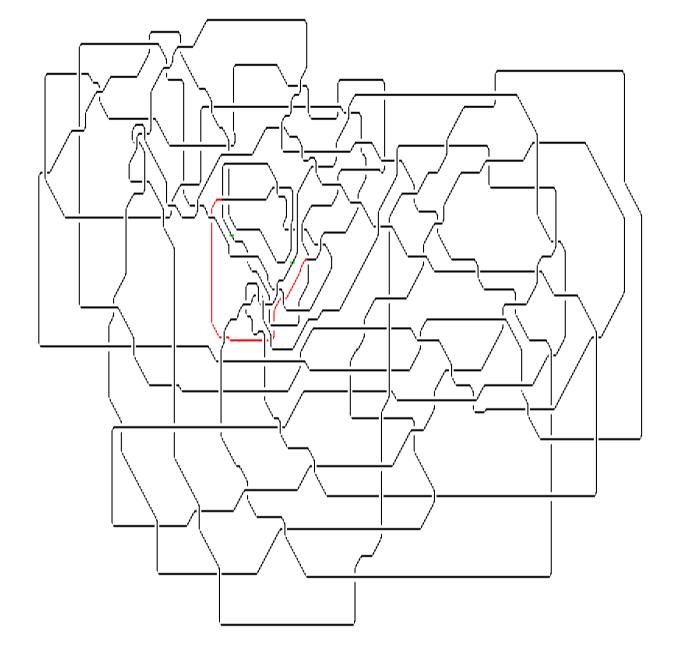


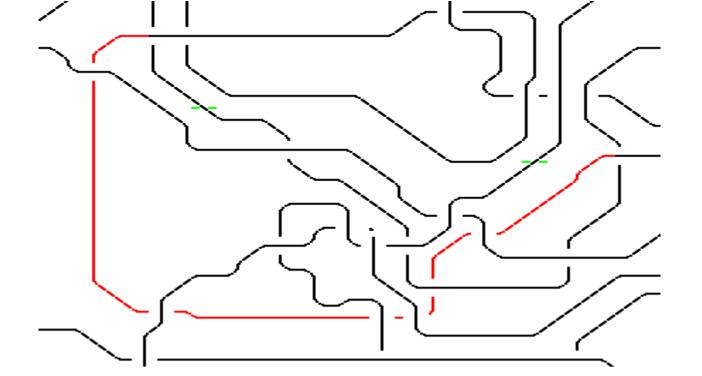


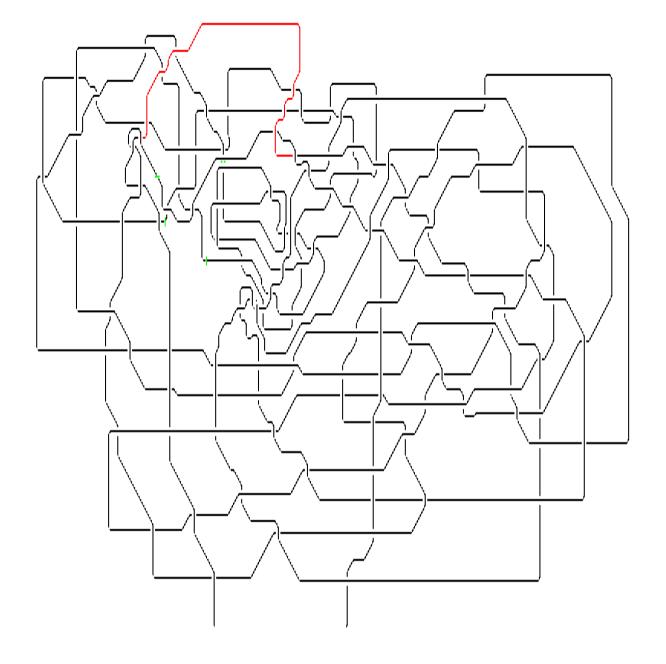


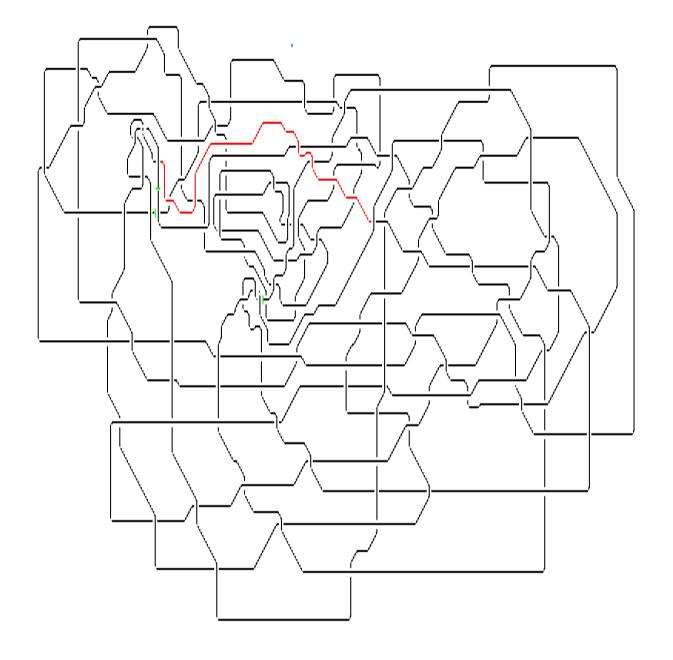


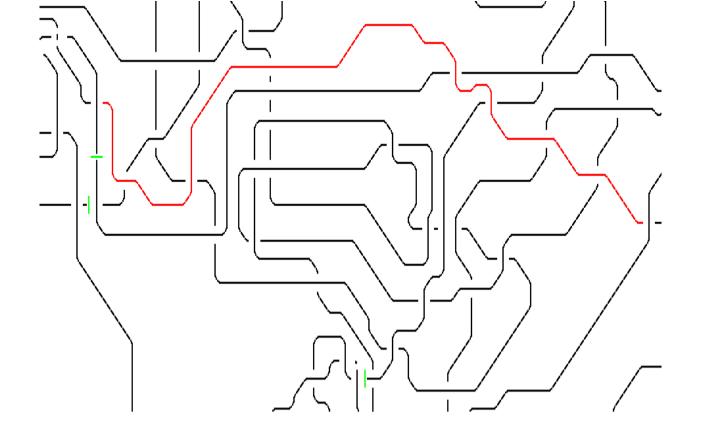


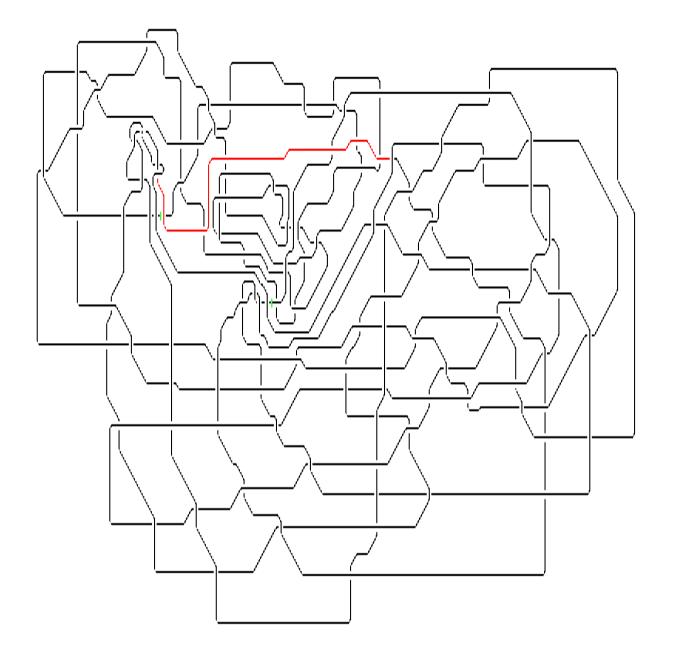


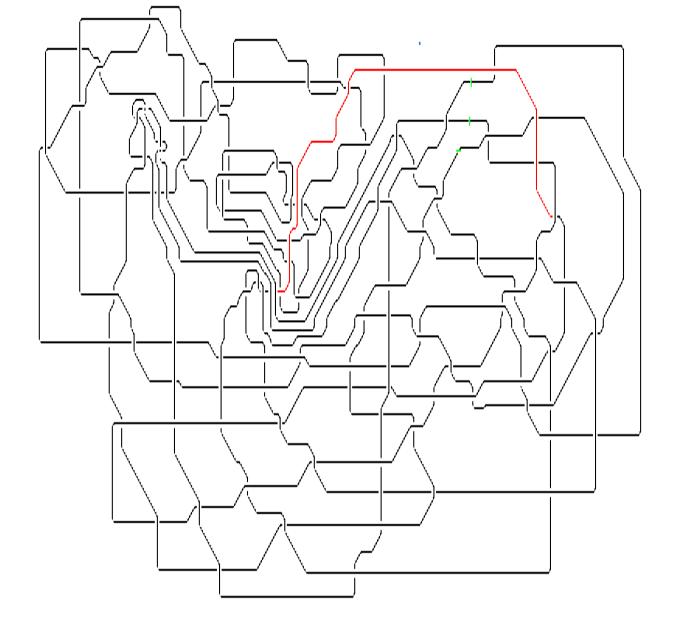


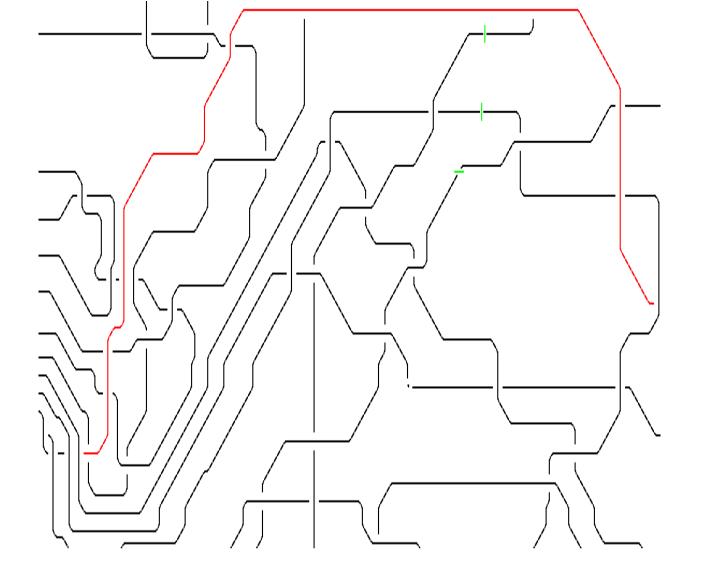


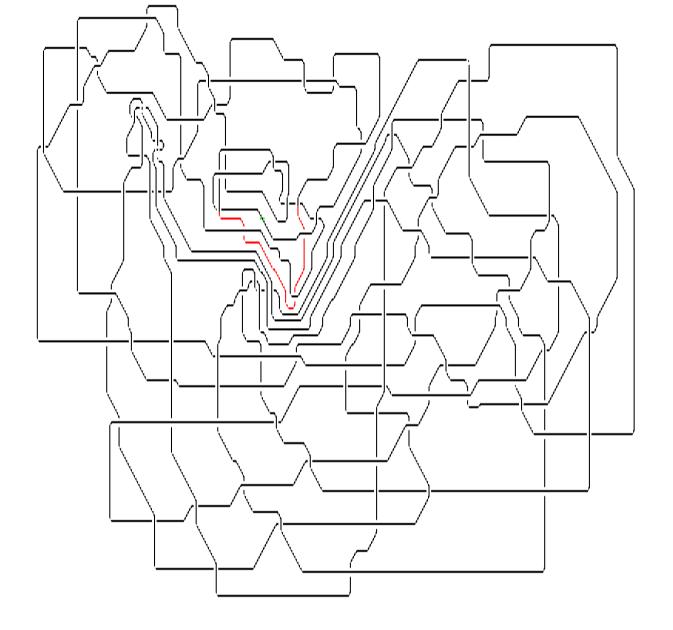


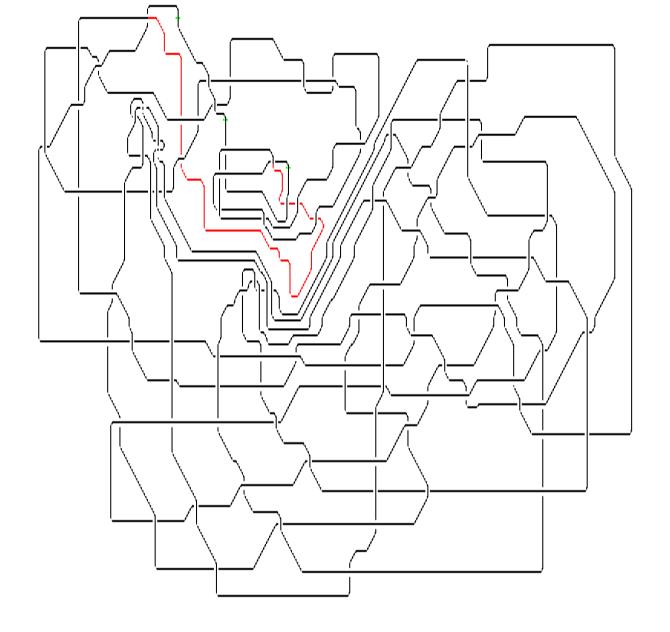


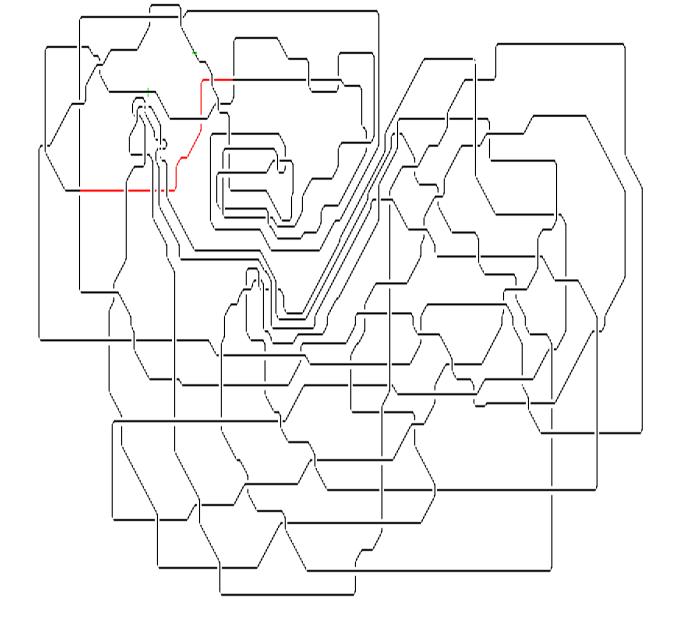


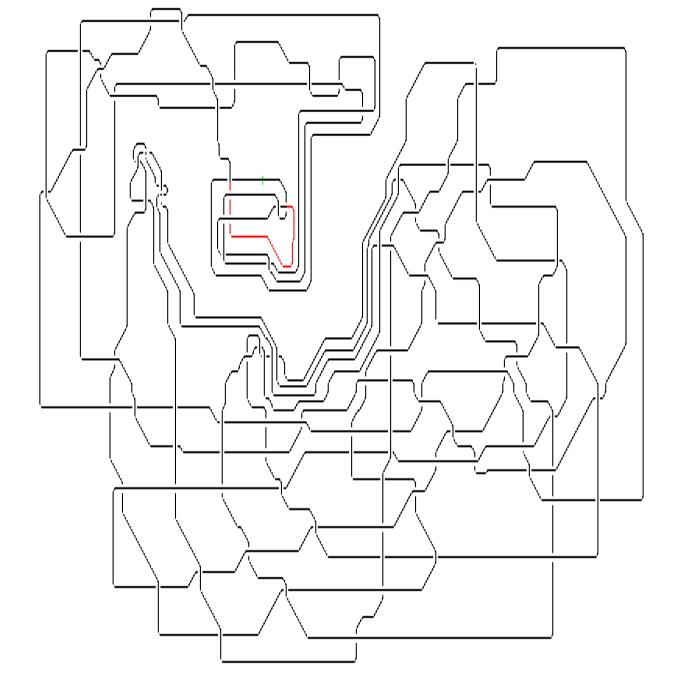


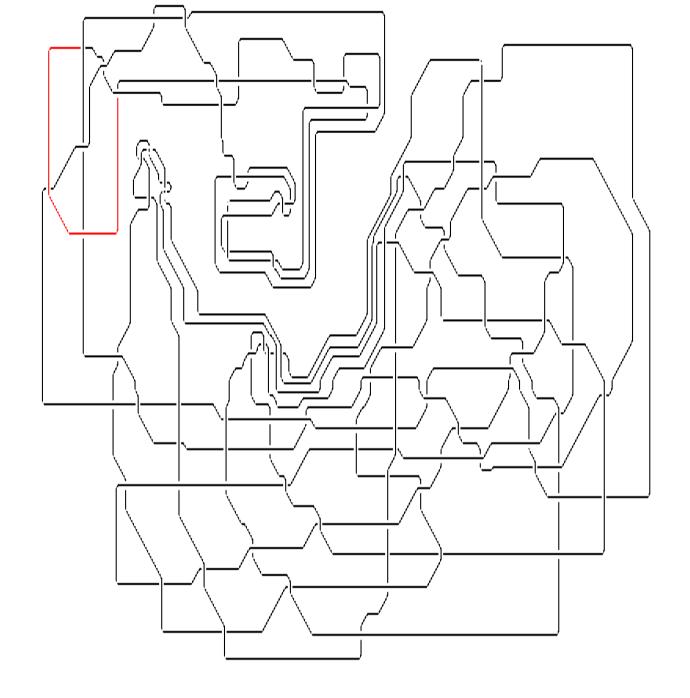


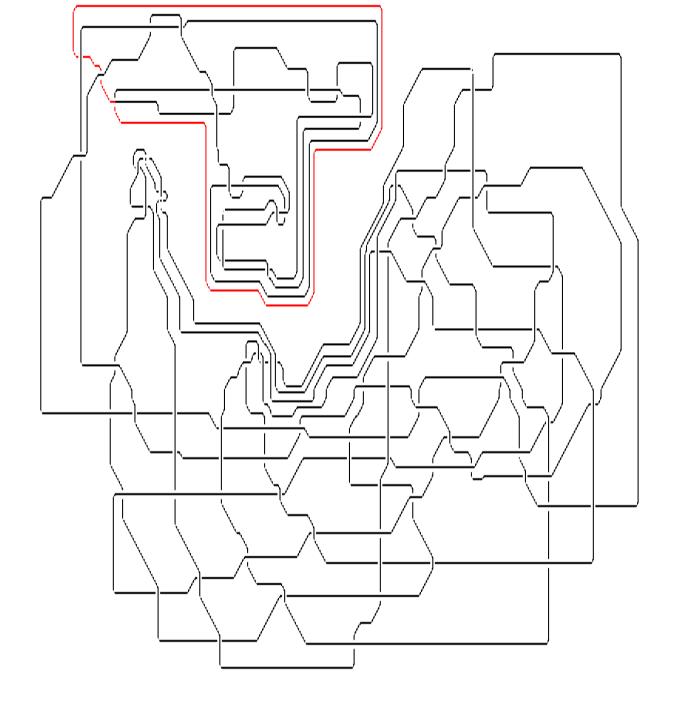


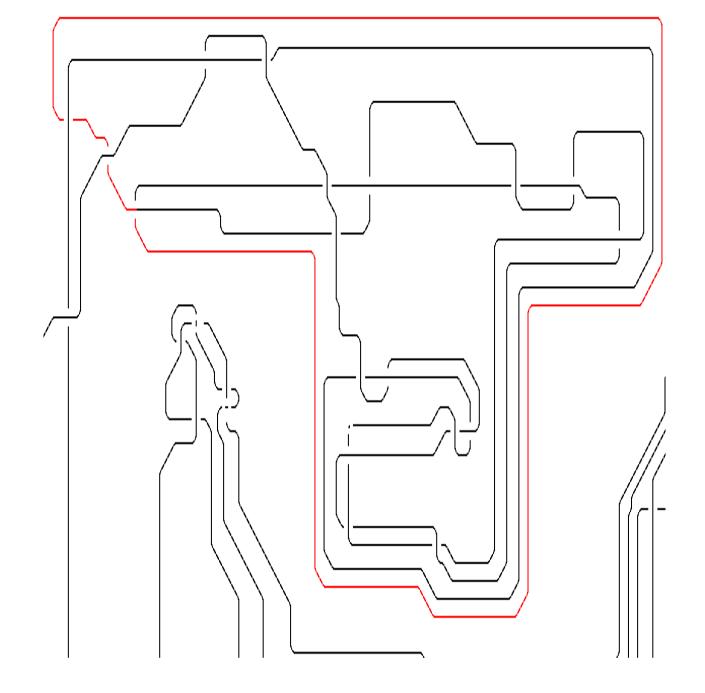


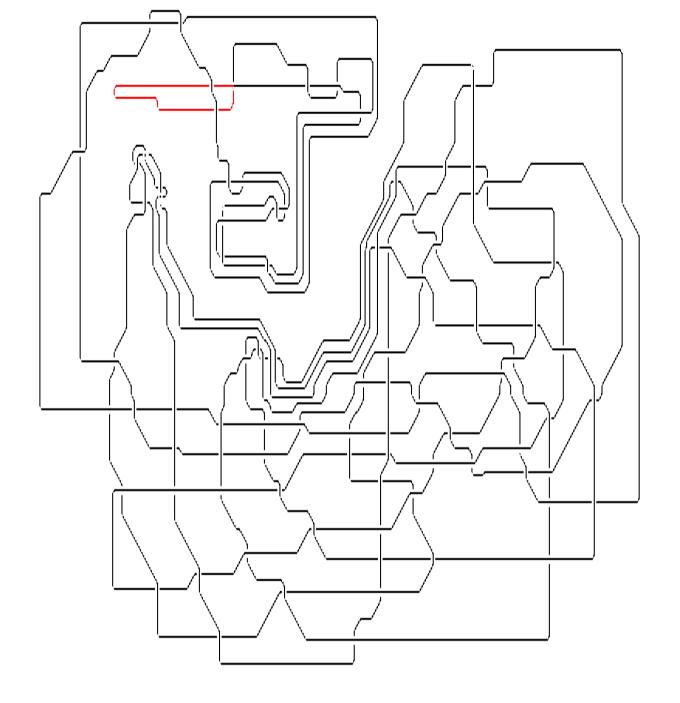


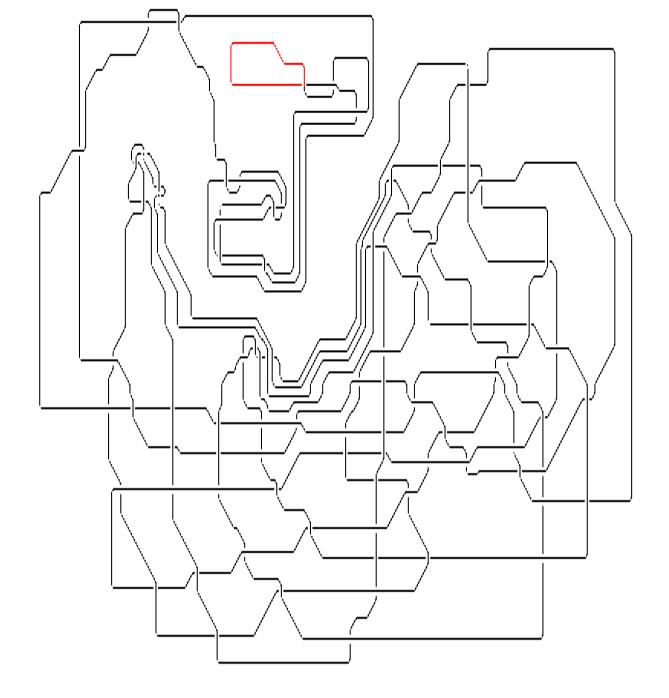


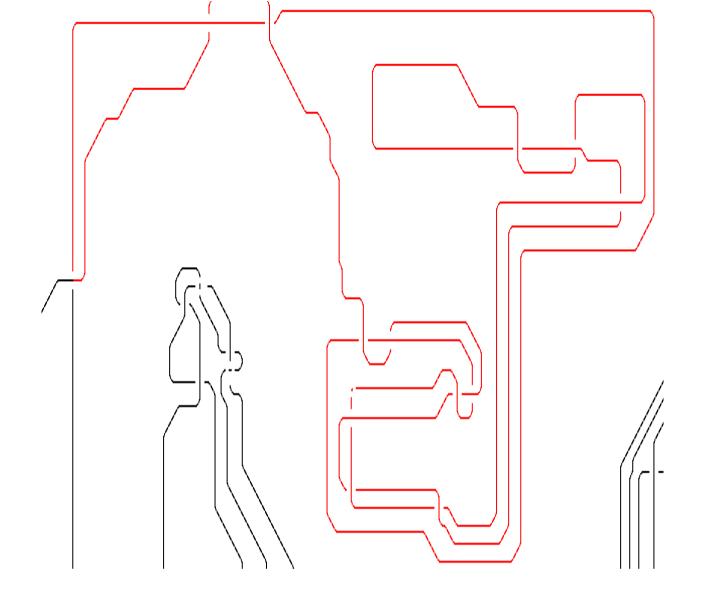


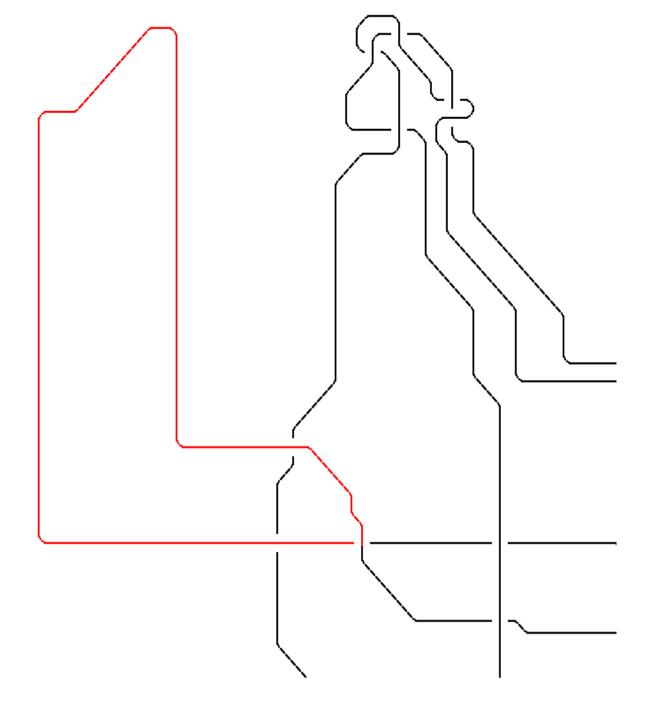


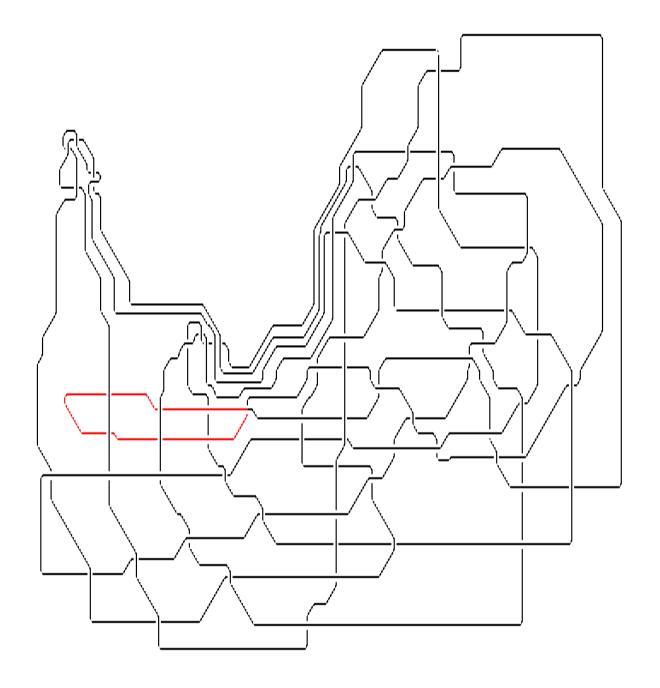


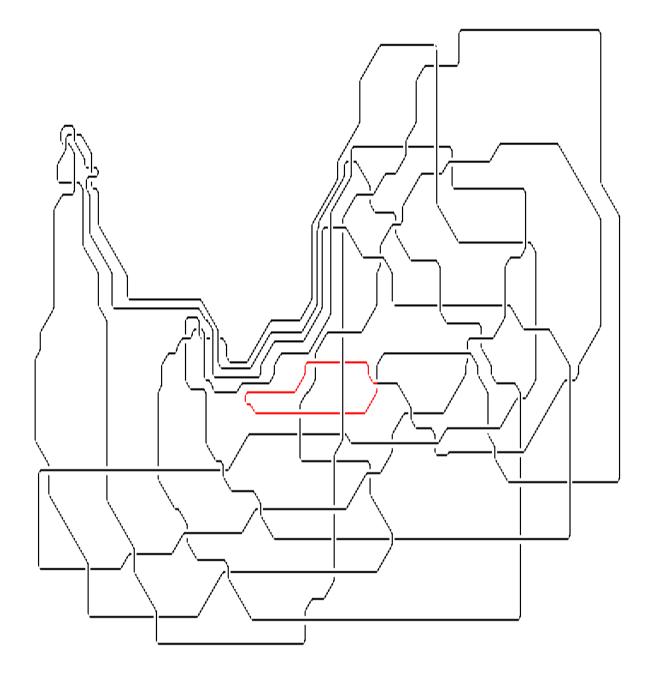


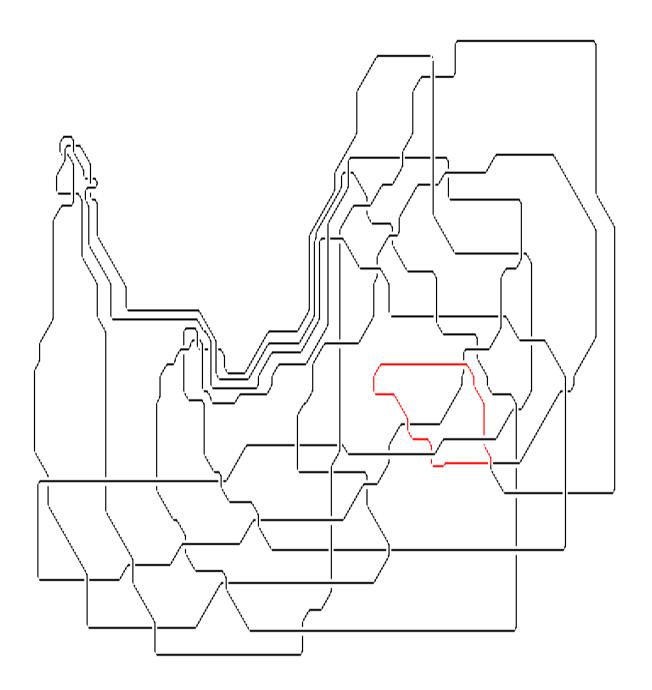


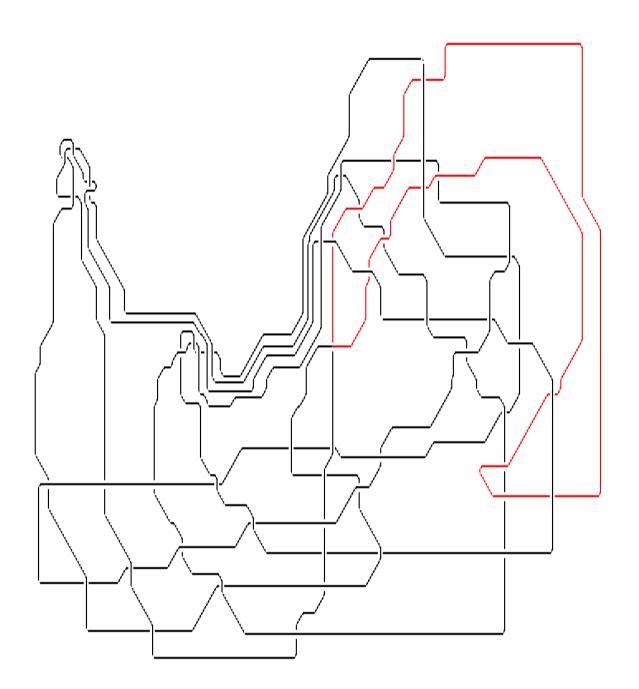


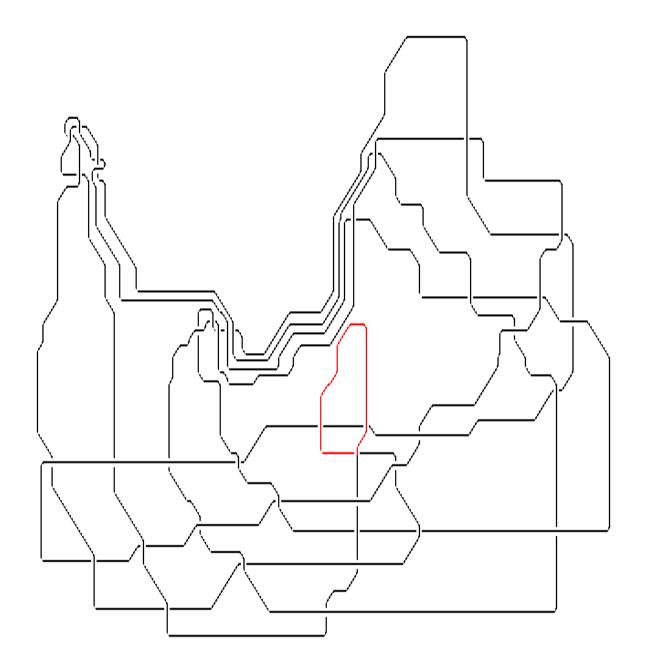


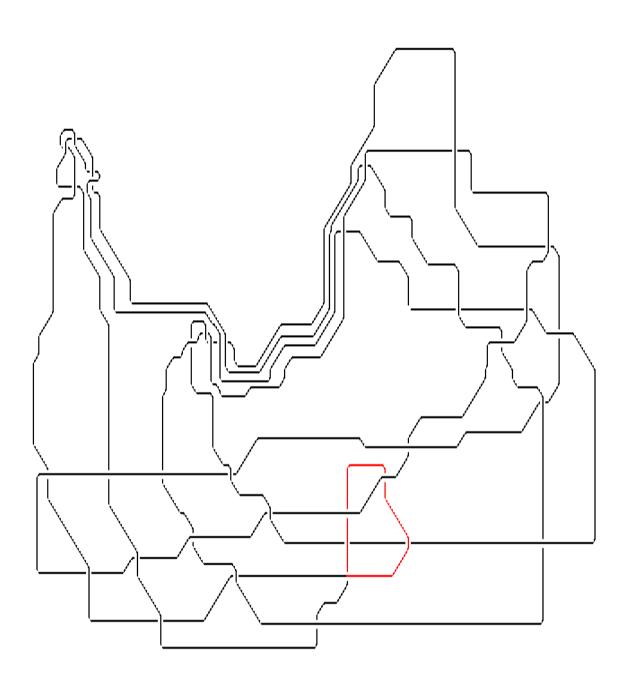


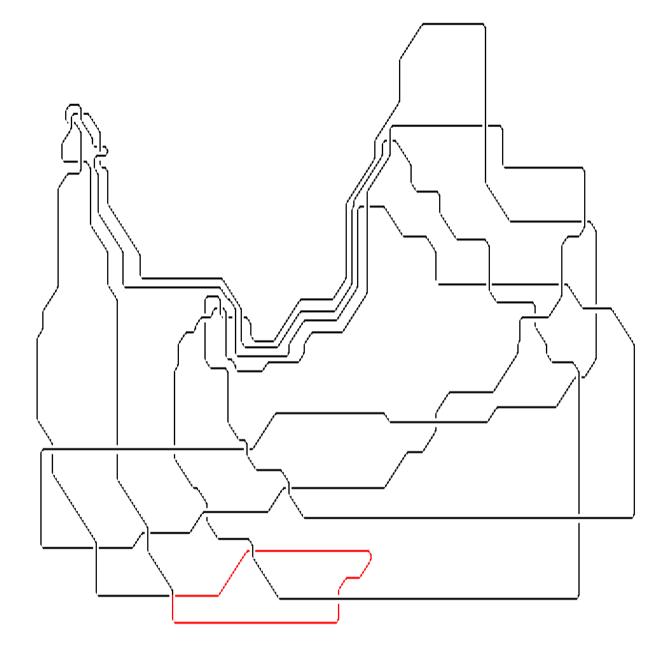


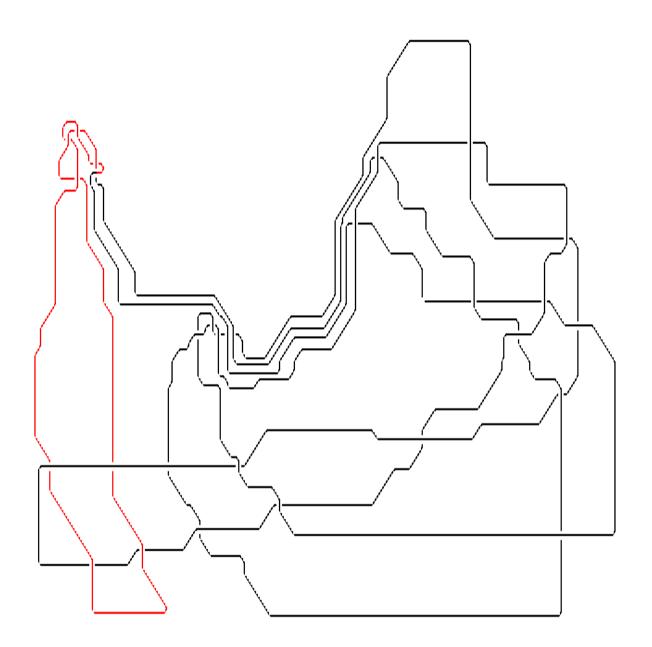


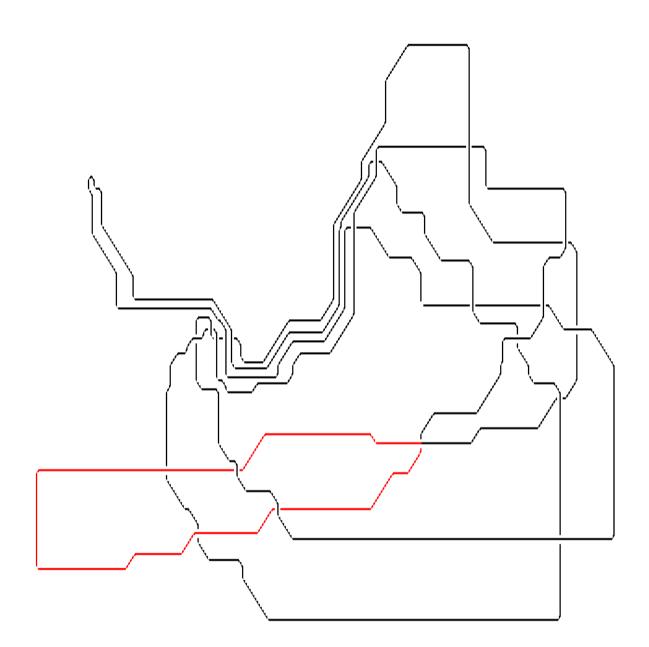


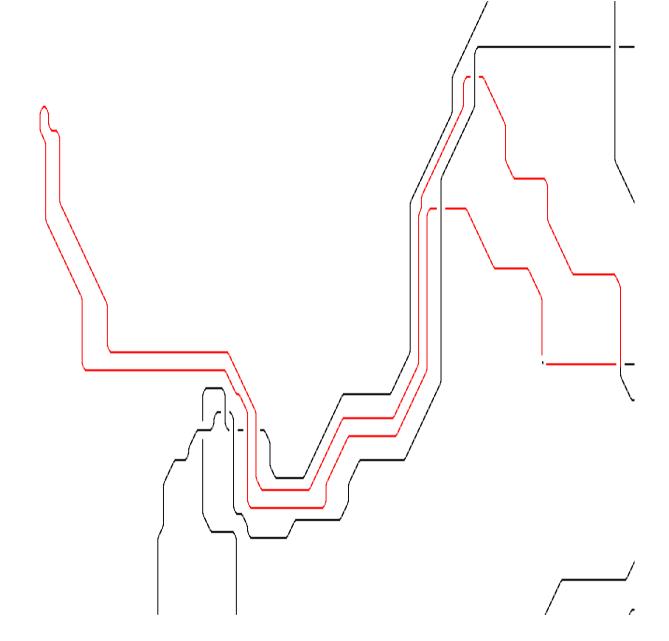


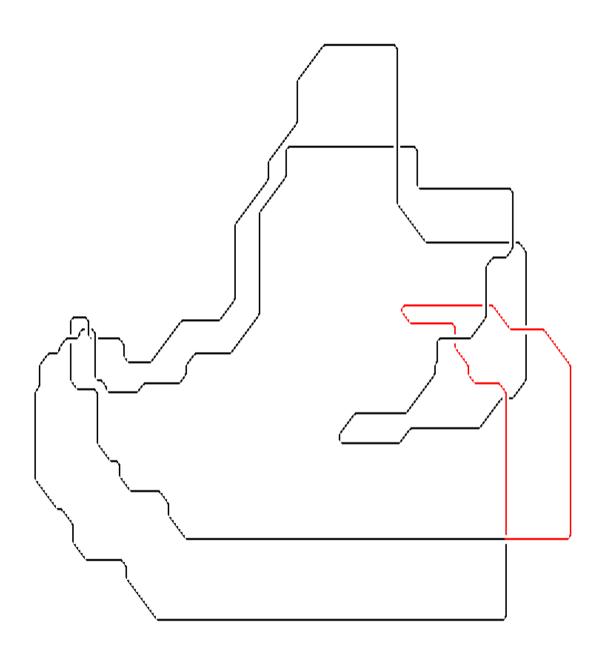


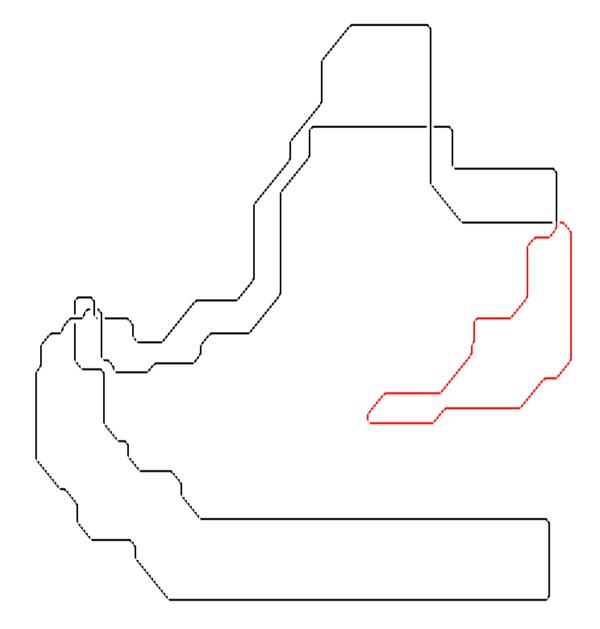


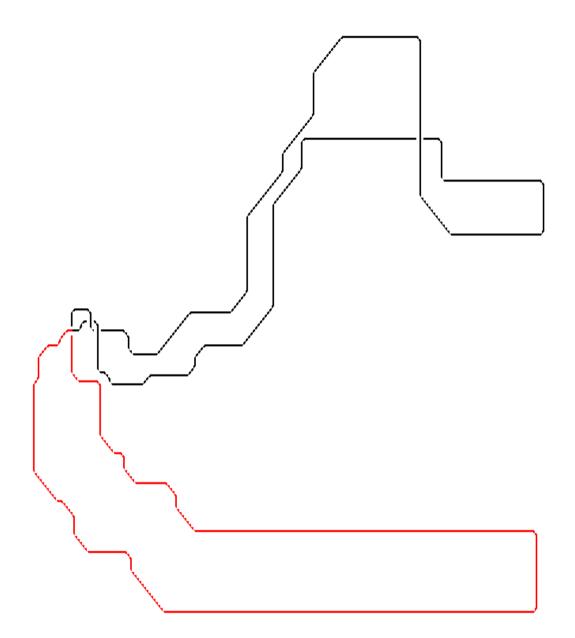


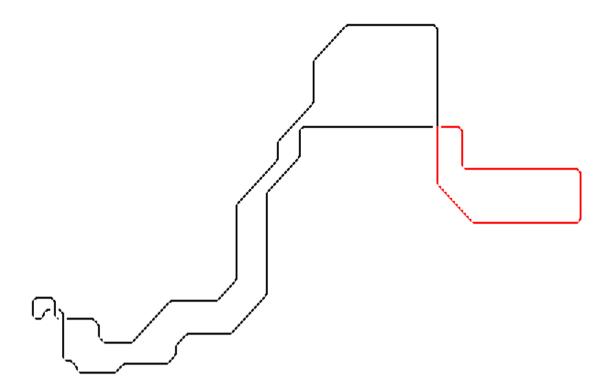


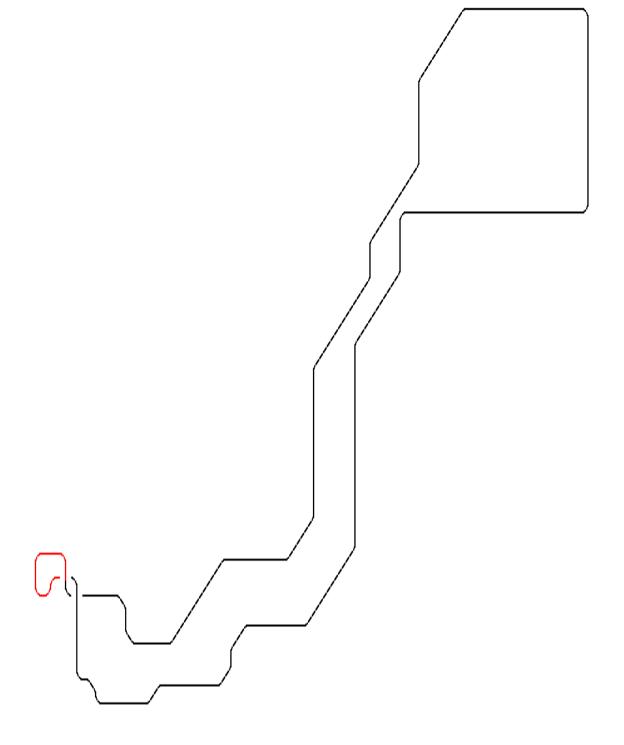


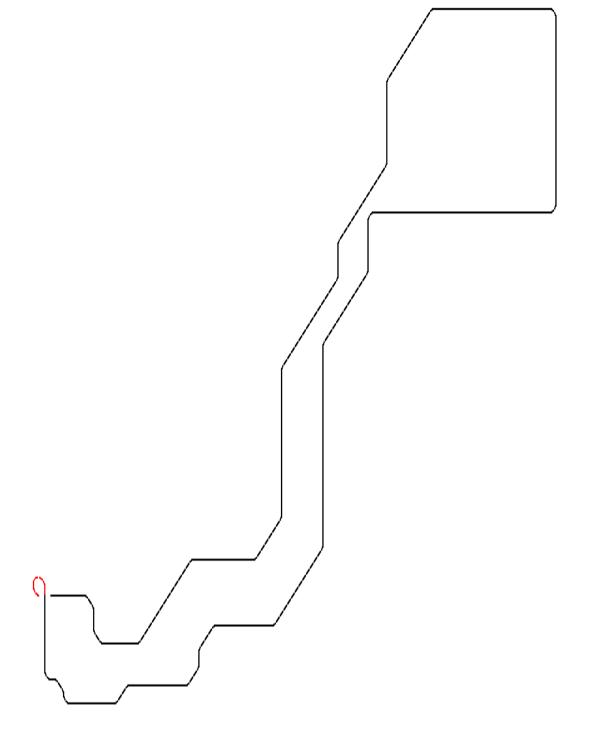


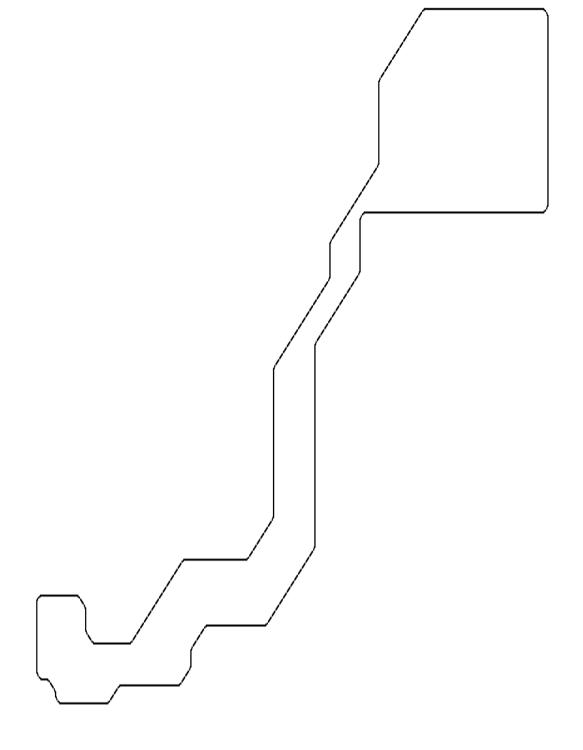












## PART 2 Connected components

The red part and the green part are two connected components, separable cutting the two grey arcs and gathering them in the respective components

