Structure

main()
- → takes an input.csv (holds all parameters)
- → calls the getic algorithm
- → (handles parallelisation later)

genetic_algorithm(Simulation parameters)
- → setup parent and child lists
- → loop over iterations
  - rank current parents
  - while child_list not full
    - pick two parents
    - reproduce()
      - if validate
        - add to children
- → call evaluate on all children
- → swap parent and child lists

class Cuircit

vars
- connections (array)
- out_conc, out_tail (doubles)
- fitness
- Parameters (eg. mut_prob, etc.)

methods

reproduce(other_cuircit, &new_connections)
this will do both crossover and mutation and return a new connections

validate()
Check that this→ conections is valid

evaluate()
find out_ values

costs()
Convert out_ values to a fitness value