Evolutionary Algorithm
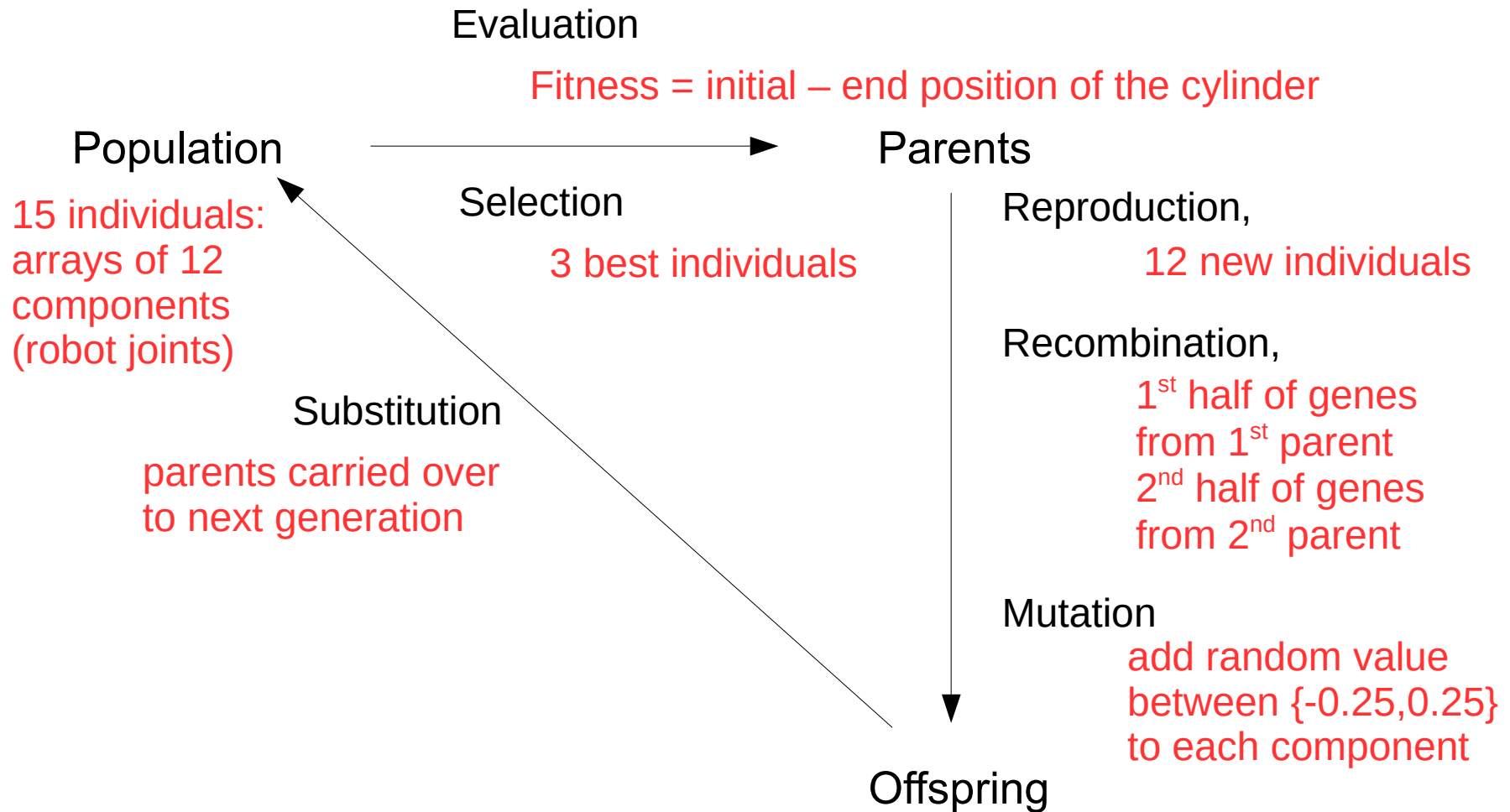
Evaluation

Fitness = initial – end position of the cylinder

Population → Parents

15 individuals: arrays of 12 components (robot joints)

Selection

3 best individuals

Reproduction,

12 new individuals

Recombination,

1st half of genes from 1st parent
2nd half of genes from 2nd parent

Substitution

parents carried over to next generation

Mutation

add random value between {-0.25,0.25} to each component

Offspring

[1]

Marie Bommersheim, Rafael Kübler, and Simon Reinkemeier – Virtual Neurorobotic in the Human Brain Project   FZI Forschungszentrum Informatik