Swimbot Simulation Results

This is a summary of the results obtained between generation 0 and 5000 generation.

We start out with 200 swimbots, and end up with 394 bots.

The maximum energy in the last generation was 94.772588 and the mean energy was 27.335025.

The maximum age in the last generation was 997 , the minimum was 1 and the average age was 362.718274.

The most frequent segment number in the last generation was 2 and the average segment number was 2.276650,

compared to the most frequent being 8 in the first generation, and the average being 5.255000.

The average translational movement in the last generation was 2.395939 while in the first generation it was 4.530000.

The average rotational movement in the last generation was 0.008970 while in the first generation it was 0.017671.
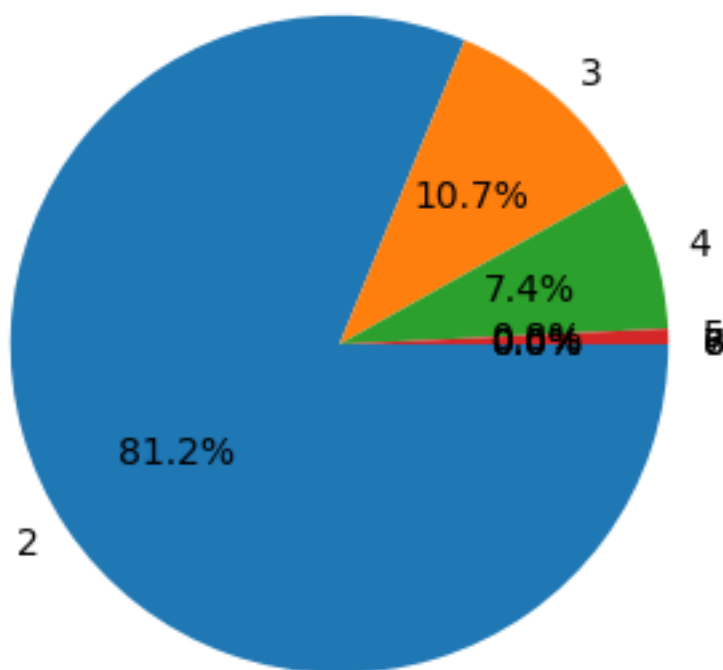
The most frequent range of length of the first (main) segment in the last generation was 17 and the average age was 11.893401,

compared to the most frequent range of length of the first segment being 17 in the first generation, and the average being 11.660000.
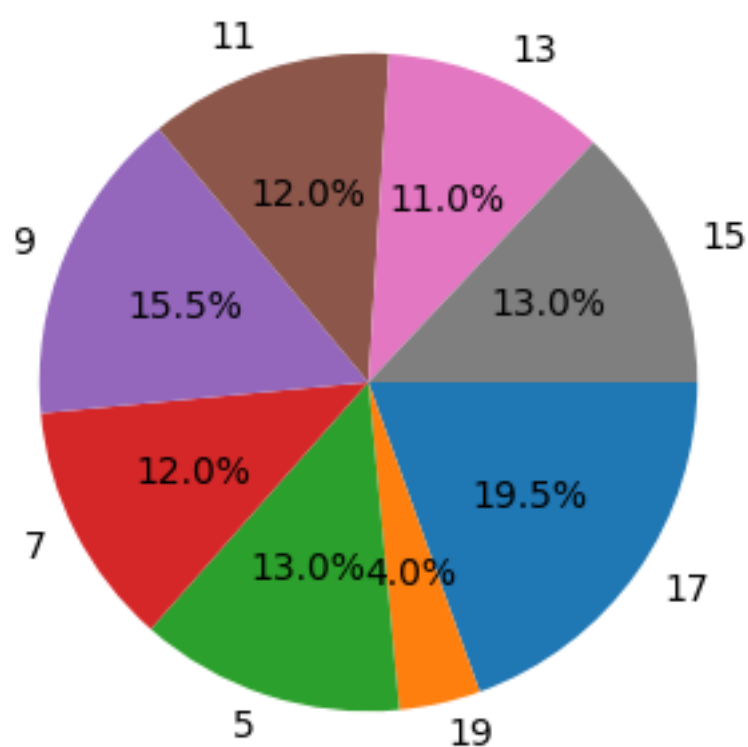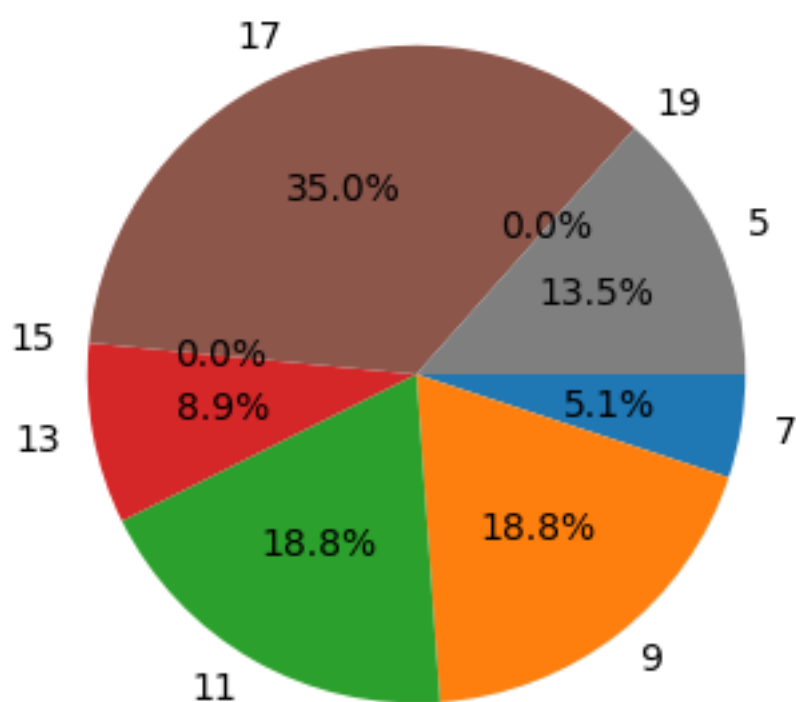
Number of Segments for Generation 0
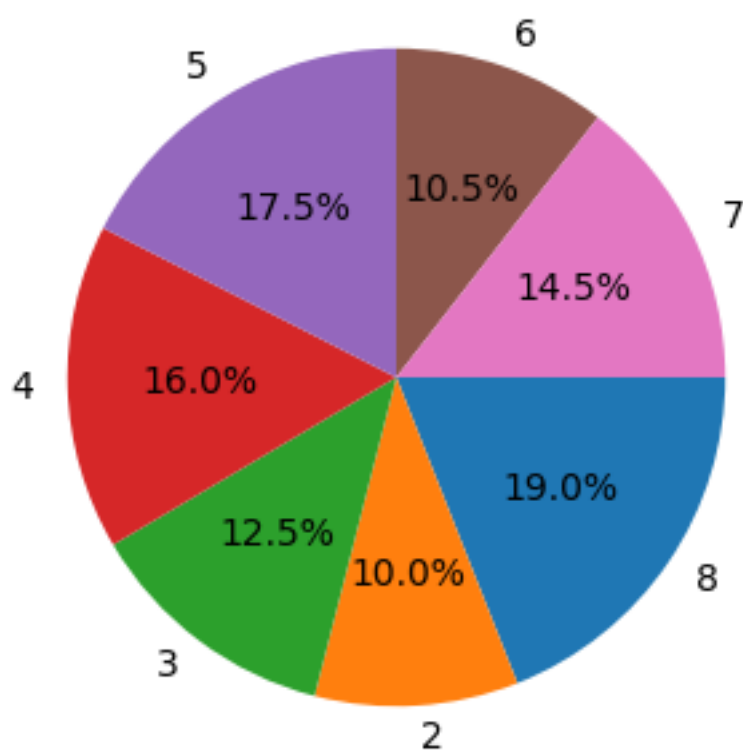
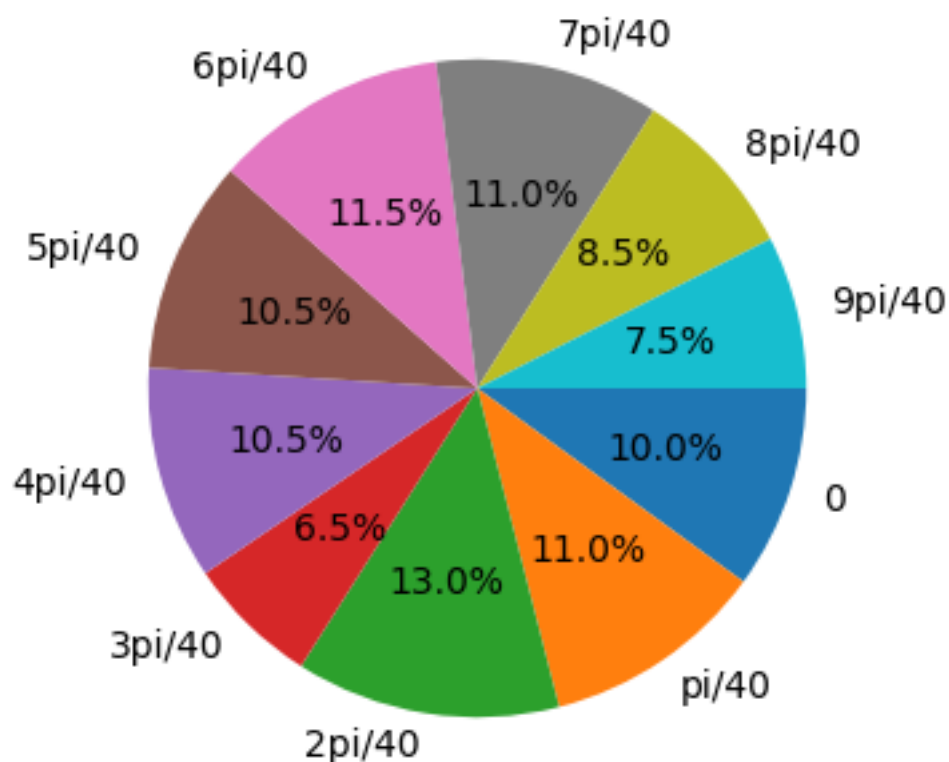## Number of Segments for Last Generation

Main Segment Length for Generation 0

Main Segment Length for Last Generation

Angular Movement for Generation 0
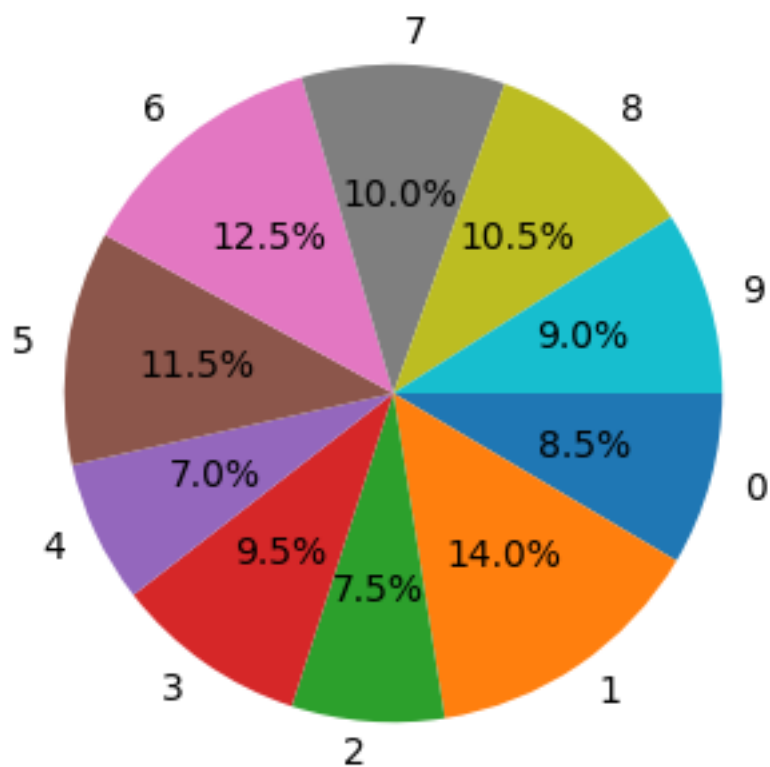
7pi/40 — 11.0%
8pi/40 — 8.5%
9pi/40 — 7.5%
0 — 10.0%
pi/40 — 11.0%
2pi/40 — 13.0%
3pi/40 — 6.5%
4pi/40 — 10.5%
5pi/40 — 10.5%
6pi/40 — 11.5%

Angular Movement for Last Generation

6pi/40 — 13.2%
7pi/40 — 0.3%
9pi/40 — 17.0%
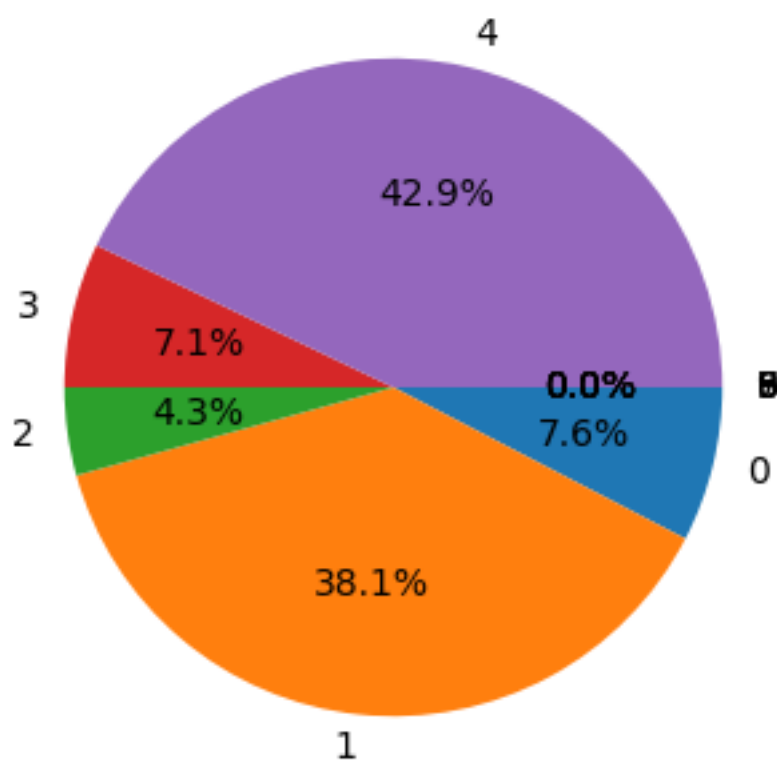0 — 0.0%
pi/40 — 20.1%
2pi/40 — 3.0%
3pi/40 — 9.4%
4pi/40 — 19.8%
5pi/40 — 16.2%
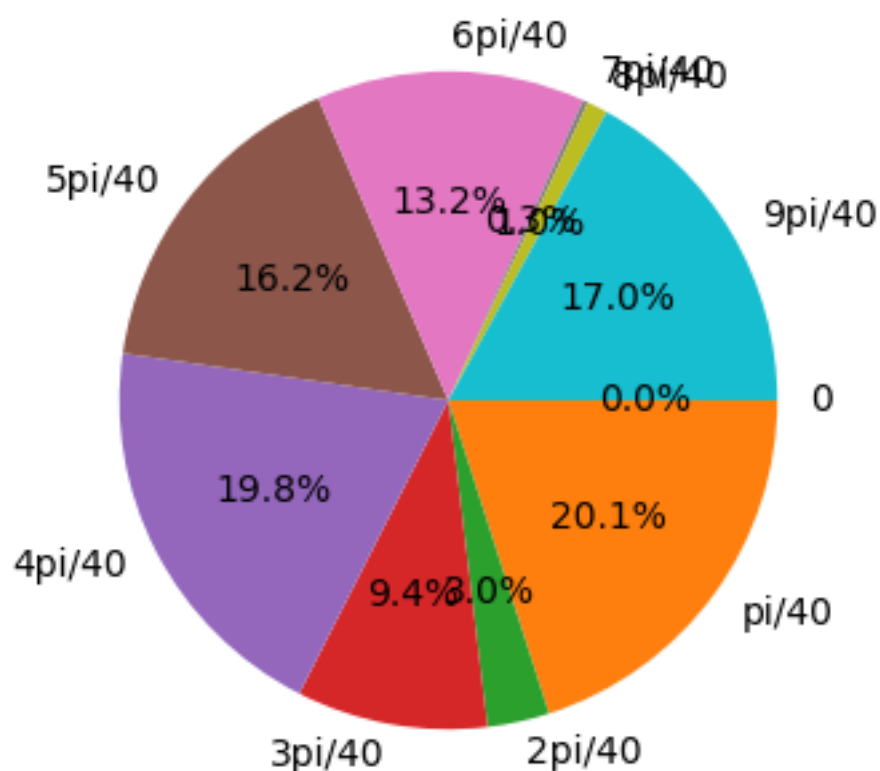
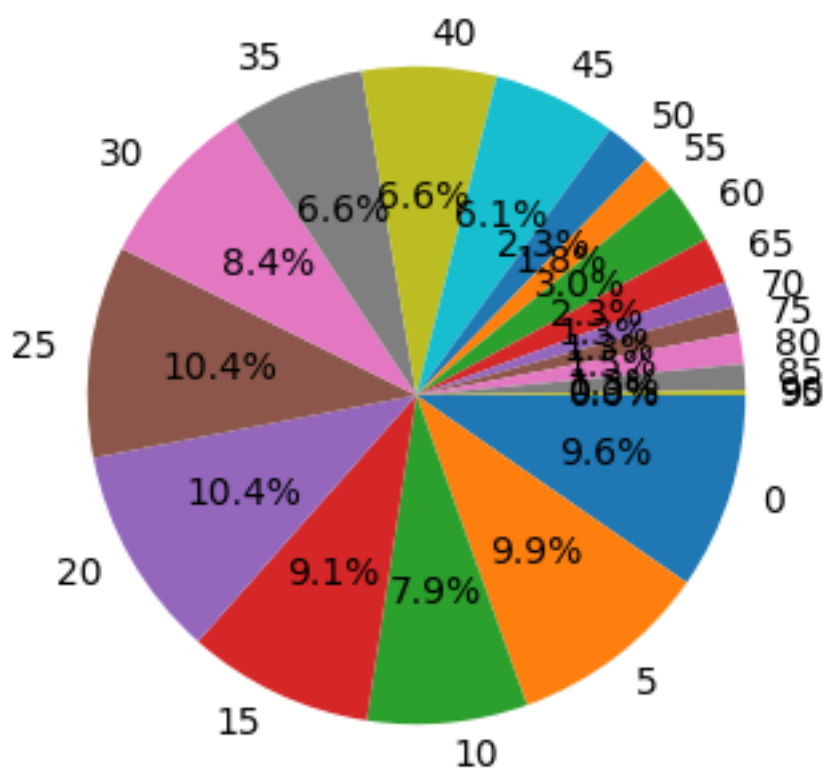# Translational Movement for Generation 0

Translational Movement for Last Generation

Energy value for Last Generation

Ages for Last Generation