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The biological brain is a complex, modular structure designed to handle a range of inputs with minimal neuronal hardware. To promote this modularity in simulation, we propose the use of critical random Boolean networks (RBNs) to represent multiple gait patterns in a single data structure for a robot. We used a two-part genetic algorithm to evolve 8-node RBNs, each containing multiple cyclical attractors, in order to show that pre-evolving RBNs for maximal variability greatly improves the evolutionary fitness of the simulated robot. Our results indicate that it is feasible to represent multiple, highly-fit gaits with the cyclic attractors of a single network.