Evolutionary robotics offers the promise of automating the design of robot morphologies and control policies. However, current techniques do not scale well when attempting to incorporate an expanding behavioral repertoire into the control policy or when increasing the complexity of the robot morphology. In this work, we present one possible solution to this problem using a recent evolutionary method (HyperNEAT). This indirect encoding is used to first evolve morphologies at a coarse resolution (cell size) followed by a gradual increase of this resolution (corresponding to decreasing cell size) allowing for preserving the high level dynamics discovered at the lower resolution while at the same time being able to refine lower level features in a finer grained manner.