Bioinspired Legged Millirobots

This tutorial covers the bio-inspired principles behind building 10 cm scale dynamic legged robots. Using principles of dynamic similarity to a cockroach lead to the VelociRoACH robot, which can run at 2.7 meters per second. The tutorial next looks at using mechanical advantage and series elastic actuation to construct a robot with high vertical jumping agility, Salto. Finally, folding fabrication techniques for rapidly prototyping some of these millirobots is described, with pointers to a completely open source hexapod: OpenRoACH.