

EU FP7



AMARSi

Adaptive Modular Architectures for Rich Motor Skills

ICT-248311

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Publish Cheetah simulator (Webots or GPL  
open source) (T.2.2)

Authors: Alexandre Tuleu (EPFL)

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Lead Partner	EPFL
Revision	Final
Dissemination level	Public

The robot simulator for the quadruped AMARSi robot is made public at month 18 and can be accessed at [1].

The quadruped robot simulator has been developed using the Webots simulation environment [4]. It features a bioinspired and compliant robot model, mainly designed from the cheetah robot [3]. The simulator has been used both as a benchmarking tool for adaptive modules among the AMARSi consortium, and as a testing tool for the development of the new AMARSi Oncilla robot (new name of the evolved Cheetah robot under AMARSi). Further, the simulator has been used as educational material for a master level class at EPFL, attended by an audience of more than 20 students.

The robot model and additional software for running it is distributed under the terms of the Lesser General Public License (LGPL) version 3 [2].

A major next release is planned in the near future, alongside the public release of the Oncilla platform. We aim to provide a model closer to the actual Oncilla robot, with a common user interface for both simulation and hardware. We will further advertise our development tools after these major releases.

## References

- [1] AMARSi Consortium. Cheetah robot simulator. <https://redmine.amarsi-project.eu/projects/cheetahsim>.
- [2] F. S. Foundation. Lesser general public license, version 3. <http://www.gnu.org/licenses/lgpl.html>.
- [3] S. Rutishauser, A. Sproewitz, L. Righetti, and A. Ijspeert. Passive compliant quadruped robot using central pattern generators for locomotion control. IEEE Biorob 2008, 2008.
- [4] Webots. <http://www.cyberbotics.com>. Commercial Mobile Robot Simulation Software.