

Introducing OpenSDK, a Free Open-Source Implementation of OpenR

SPQR-ISocRob-4LL Open Challenge Abstract

Most software developers working with SONY AIBO robots have faced several problems with the closed-source nature of the Sony SDK OpenR. OpenSDK (<http://opensdk.sf.net>) is a free open-source implementation of Sony's OPEN-R Development Kit, developed by our team. It aims at compiling and running code that uses that API on a normal PC to reduce the development cycle time, by allowing the use of standard debugging tools (gdb, valgrind, strace, etc..). OpenSDK will also ease the transition to a new standard legged robot platform, as it should run code developed to AIBO with no modifications to the code (only a recompilation is necessary). OpenSDK also enables running the code in the USARSim simulator (with the four legged league module [1]), by feeding it with the primitive actions and fetching the sensor inputs (camera, joint angles, etc..). In the future we plan to run compiled code for AIBO in another platform with the help of an emulator (e.g. qemu).

References

[1] M. Zaratti, M. Fratarcangeli, L. Iocchi, A 3D Simulator of Multiple Legged Robots based on USARSim. In Proc. of RoboCup Symposium 2006.