

---

# Programming Robots in Logo

**Pavel Petrovič**, [ppetrovic@acm.org](mailto:ppetrovic@acm.org)

Dept of Computer and Information Science, NTNU, Trondheim

**Ronald Weiss**, [ronald@microstep-mis.com](mailto:ronald@microstep-mis.com)

Microstep-MIS, Bratislava

## Abstract

The field of robotics is important for several reasons: Robots allow humans to perform work that is not suitable for us (dangerous, require superhuman power, endurance, precision, or reliability), robots can produce things at lower cost; they can enable mankind to reach beyond our known horizons, and they can improve quality of our life in various ways.

The general public must be prepared for the presence of robots and must pay attention to and understand the principles and issues of man-machine interaction, robot control and behaviour. Schools and teachers can and should play a role in this process, or at the very least they should be informed.

The workshop will be a hands-on tutorial into basic robotic control with the help of Logo. It will consist of several hands-on activities where the robots are controlled using Logo language with the goal of using the robots in the school curriculum. The activities will include both the traditional LEGO Mindstorms with RCX and the newer LEGO Mindstorms NXT robots communicating with Imagine Logo, and controlled directly by Logo scripts (in case of NXT). In addition, control of Robotnačka, the turtle robots, from Imagine, including the publicly available Remotely-Accessible Robotics laboratory at <http://virtuallab.kar.elf.stuba.sk/> Participants of the tutorial will be able to build their own simple robots and write their own programs in Logo to control them.

## References

LEGO Mindstorms, <http://mindstorms.lego.com/>

Ďurina, D. and Petrovič, P. and Balogh, R. (2006) *Robotnačka – The Drawing Robot*. In Proceedings to Robtep 2006.

Petrovič, P and Lúčny A. and Balogh R. and Ďurina D. (2006) *Remotely-Accessible Robotics Laboratory*. In Proceedings to Robtep 2006.