## Robot Kit Building and Competition

Instructors

Schedule

Mission

Some notices

**Team assembling** 

**Design review presentation** 



### Robot Kit Building: Instructors

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## **Robot Kit Building**

Schedule

Aug. 6: Briefing, Team assembling, Concept discussion, Design Review

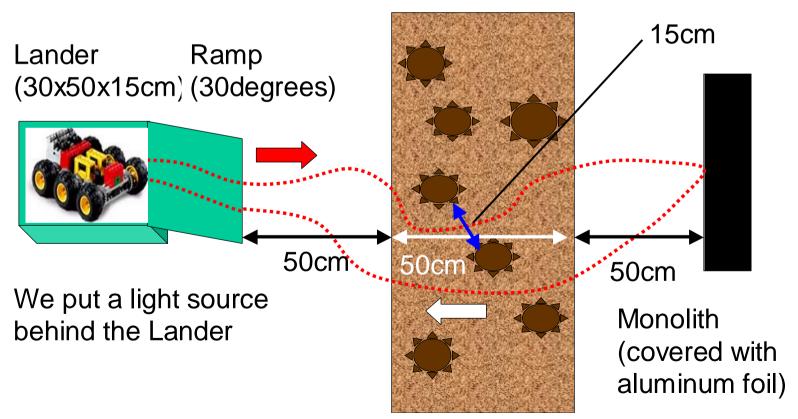
Aug. 9: Competition (final presentation) starts at: 2:00pm



### Robot building: in Computer Lab Final Competition: 1<sup>st</sup> floor of Build. 17 (under the spacecraft)

# **Robot Kit Building: Mission**

Rugged area with random obstacles



## Robot Kit Building: Goals and Rules

<ul> <li>Successful locomotion down the ramp:</li> </ul>	+15p		
<ul> <li>Successful negotiation with obstacles:</li> </ul>	+15p		
<ul> <li>Successful contact with Monolith:</li> </ul>	+15p		
<ul> <li>Successful turn around:</li> <li>Successful return to Lander:</li> <li>Successful climbing up the ramp:</li> <li>Not passing through the rugged area</li> </ul>	+15p +20p +20p - 10p		
		Human operation:	- 20p
		<ul> <li>Rescue by Astronauts:</li> </ul>	- 50p

#### Some important hints and notices

- You need a good design of chassis for high mobility.
- You need software to control the robot. (work on PC)
- Note: RCX Command Center (RCC) c-like software package is available from http://www.cs.ruu.nl/people/markov/lego/index.html and other program sources may be used.
- You need sensory feedback for autonomous navigation and control.
- Robot building must be done in the designated area in the Computer Lab.
- Be careful for not losing the parts. Most of them are very tiny. Please do not to mix up the parts among different groups.
- Do not bring the Lego staff out from the lab.