RoboCup Overview
RoboCup Overview
Field
Overview Cont.

- Five on Five Robots
- Fully Autonomous
- 15 minute halves w/5 minute break
- Lots of rules (see on-line rules book)
  - http://small-size.informatik.uni-bremen.de/rules:main
- Rules affect design, so study them
- If you’re not already on it, sign up for the international mailing list for the small-sized league mailing list info can be found at:
  - http://oucsace.cs.ohiou.edu/~chelberg/classes/robo/490.html
Hardware
Hardware Overview

• 5-8 robots
  – Base, top plate, supports (mechanical structure)
  – Four drive motors in current design
  – Extra grip wheels
  – Dribble bar
  – Ball sensor
  – Kicker
  – Computer
  – Control Board

• Cameras

• Computers 2 cubes
System Overview

Cameras

Camera 1

Raw Vision

Vision 1

Vision Update

VWeld

Vision Update

Meta Agent

Vision Update (with Meta Command)

Broadcast

Vision 2

On Cubes

Raw Vision

Vision Update

Ref Box Serial Port

Ref Box Local Software

Simulator

MetaFifo

Ref Command
Overview Cont.

On Robots

Note: Any time VisionUpdate and RobotCommands are sent out over the network they are Serialized into a SerialIU and SerialRobotCommand respectively.

Note2: The Player Agent sends the RobotCommand to the Robot Agent over TCP. All other network communications, including the Meta Broadcast is done over UDP.

Note3: This drawing represents the current standard for running the robots. However, it is possible to run the Player Agents on the Cubes instead of the Robots.

KEY

Network Comm
Bus Comm
Serial Comm
Unix OS FIFO
Fundraising Committee

• Urgent need
• Volunteers?
• Scope of activities?
• Schedule?
• Deadlines?
Technical Issues

Control
Communications
New Items (need to be debugged)
  • control board
  • kicker
  • on-board processor
  • wheels
Tasks

Pictures/Org Chart Update
Accounts on machines
Lab cleanup
Inventory of what you have/need by group