Good Afternoon, Colleagues
Good Afternoon, Colleagues

Are there any questions?
Logistics

- Programming assignments
  - How did it go?
Logistics

- Programming assignments
  - How did it go?
  - Assignment 3 is assigned
Pengi

- Penguin chases monsters in a maze
- Can kill them with ice blocks
- Monsters can kill penguin by touching it
Pengi

- Penguin chases monsters in a maze
- Can kill them with ice blocks
- Monsters can kill penguin by touching it
- What would it mean to do planning in this domain?
Pengi

- Penguin chases monsters in a maze
- Can kill them with ice blocks
- Monsters can kill penguin by touching it
- What would it mean to do planning in this domain?

**Group 1:** Design a Pengi controller using subsumption

**Group 2:** Design a Pengi controller using 3T
RoboCup Synthetic Agents Challenge

- Learning Challenge
- Teamwork Challenge
- Opponent Modeling Challenge
Learning Challenge

- early years – Offline individual, collaborative learning
Learning Challenge

• early years – Offline individual, collaborative learning

• then some online skill and collaborative team learning
Learning Challenge

- early years – Offline individual, collaborative learning
- then some online skill and collaborative team learning
- Open challenge – on-line adversarial learning
  - Especially during a single game
Teamwork Challenge

- early years – hard-wired positions
Teamwork Challenge

- early years – hard-wired positions
- now, more flexible teamwork
Teamwork Challenge

- early years – hard-wired positions

- now, more flexible teamwork
  - plan decomposition – roles, play modes
Teamwork Challenge

• early years – hard-wired positions

• now, more flexible teamwork
  – plan decomposition – roles, play modes
  – executing team plans – ISIS
Teamwork Challenge

- early years – hard-wired positions

- now, more flexible teamwork
  - plan decomposition – roles, play modes
  - executing team plans – ISIS
  - contingency planning – not so much
Opponent Modeling Challenge

- First: Build in models
Opponent Modeling Challenge

• First: Build in models

• Off-line review – statistical engines
Opponent Modeling Challenge

- First: Build in models

- Off-line review – statistical engines

- Open challenge:
  - On-line tracking (Andou)
  - On-line strategy recognition
Opponent Modeling Challenge

- First: Build in models

- Off-line review – statistical engines

- Open challenge:
  - On-line tracking (Andou)
  - On-line strategy recognition

- Recent years – coach
  - Omniscient view
  - Standard language
  - Coachable teams