

COMP250 Artificial Intelligence

8: MicroRTS







► This should be your main focus (for COMP250) from now on

- This should be your main focus (for COMP250) from now on
- Fork the repository at https://github.com/ falmouth-games-academy/comp250-bot and follow the instructions

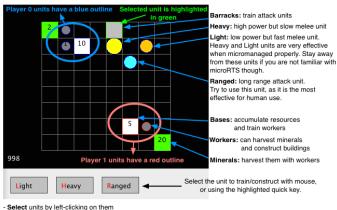
- This should be your main focus (for COMP250) from now on
- Fork the repository at https://github.com/ falmouth-games-academy/comp250-bot and follow the instructions
- ► Look at the example bots in the microrts project

- This should be your main focus (for COMP250) from now on
- Fork the repository at https://github.com/ falmouth-games-academy/comp250-bot and follow the instructions
- ▶ Look at the example bots in the microrts project
 - ▶ Start with the "rush" bots in ai.abstraction

- ► This should be your main focus (for COMP250) from now on
- Fork the repository at https://github.com/ falmouth-games-academy/comp250-bot and follow the instructions
- ▶ Look at the example bots in the microrts project
 - ▶ Start with the "rush" bots in ai.abstraction
 - ► Move on to search-based Al: ai.minimax.RTMiniMax.RTMiniMax, ai.mcts.naivemcts.NaiveMCTS,...

- This should be your main focus (for COMP250) from now on
- Fork the repository at https://github.com/ falmouth-games-academy/comp250-bot and follow the instructions
- ▶ Look at the example bots in the microrts project
 - Start with the "rush" bots in ai.abstraction
 - ► Move on to search-based Al: ai.minimax.RTMiniMax.RTMiniMax, ai.mcts.naivemcts.NaiveMCTS,...
 - ▶ Use these samples as a basis to create your own Al

Playing the game



- Move units by right-clicking on a destination
- Attack enemies by right-clicking on them
- Harvest minerals by right-clicking on them
- Train units by selecting them at the bottom of the screen
- Construct buildings by selecting the type of building at the bottom. and then right-clicking on the destination

 Workers can harvest minerals and build bases and barracks

- Workers can harvest minerals and build bases and barracks
- ▶ Bases can train workers

- Workers can harvest minerals and build bases and barracks
- Bases can train workers
- ▶ Barracks can train attack units

- Workers can harvest minerals and build bases and barracks
- ► Bases can train workers
- Barracks can train attack units
- Attack units: light, heavy, ranged (workers can also attack)

MicroRTS bot



MicroRTS bot

▶ getAction is called every game tick

MicroRTS bot

- ► getAction is called every game tick
- Assign actions to each of the player's units (including buildings)

Example bots