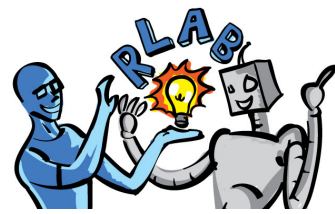




RGame: Robotic Gaming

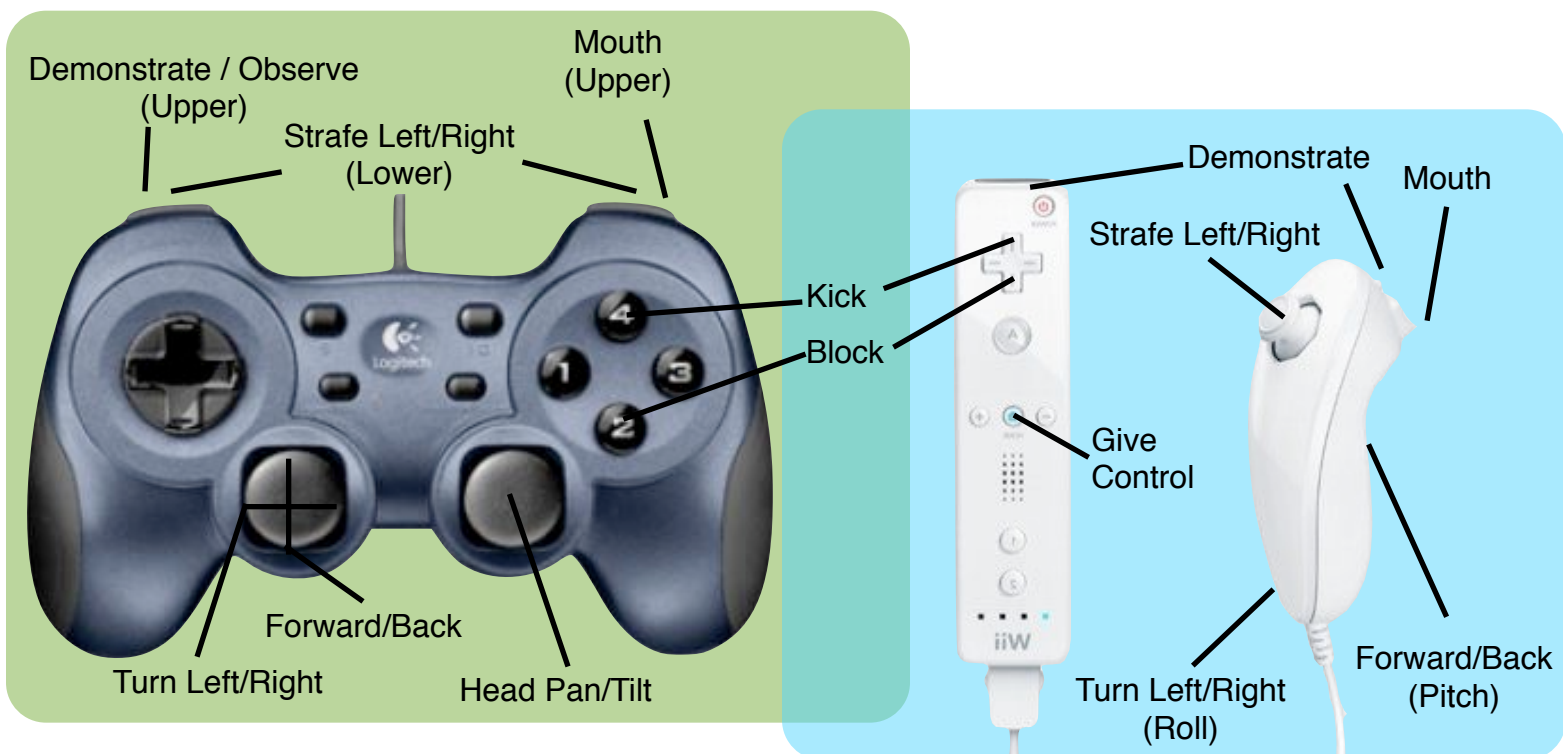


Issue: Robot learning from demonstration techniques may require large amounts of data from which to infer control policies. Particularly, they may require multiple demonstrations of the same task, which users may be unwilling to repeat.

Proposal: A distributed video-game like environment where remote users control robots, providing demonstration data. By leveraging multiple users, the same task may be demonstrated many times, in various fashions, allowing robust control policies to be estimated.

RGame in brief: An interactive robot tutelage system based on the Dogged Learning architecture (Grollman & Jenkins ICRA 2007). It is agnostic to the robotic platform, learning algorithm, and demonstration interface, allowing direct comparisons between them.

This demo: Use one of the input devices pictured below to control the robot while watching the robot's perception on the screen. Hold down the 'Demonstrate' buttons to provide task demonstration. Release (and press 'Give Control' on the wiimote) to observe the learned autonomy in action.



For more information, and source code, please visit: <http://rlab.cs.brown.edu> or contact dang@cs.brown.edu