

# Robot Manipulators and Automation

## AUTO4507

Lab Assignment 6 –*Group*– Jenga

Points: 10

### Lab 6 – Time to play Jenga

A set of wooden blocks will be arranged in a Jenga tower your objective is to get the UR5e to play Jenga against you:

- Use the feedback from the joint forces to tell if a block is free to move
- Push the block out without the tower toppling and without the block falling to the ground
- Pick up the block and place it on top of the tower in the correct position
  - Each new layer has a different orientation and should be placed left to right when looking from the short side of the blocks closest to the robot base
- The Robot should wait for the human player to be finished with their turn before proceeding
- The top layer of blocks cannot be removed
- If no more blocks are available to remove, then a winner should be declared



After the game is complete the UR5e should remake the tower with the blocks