

# Robot Manipulators and Automation

## AUTO4507

**Lab Assignment 9 – *Group of 2* – Bin Pick and Stack      Points: 10**

### Lab 9 – Pick Blocks from an Unsorted Heap and Stack them

You will be given a number of timber blocks that have been thrown in an arbitrary fashion over each other. Write a program that:

- Identifies the next best block to grasp, using image processing to find its exact pose.
- Calculate the best gripper pose and arm approach path.
- Grasp this block without disturbing other blocks, then stack it onto a pile in Jenga-style (2 blocks per layer).
- Keep identifying and moving new blocks until the initial heap has been cleared.

