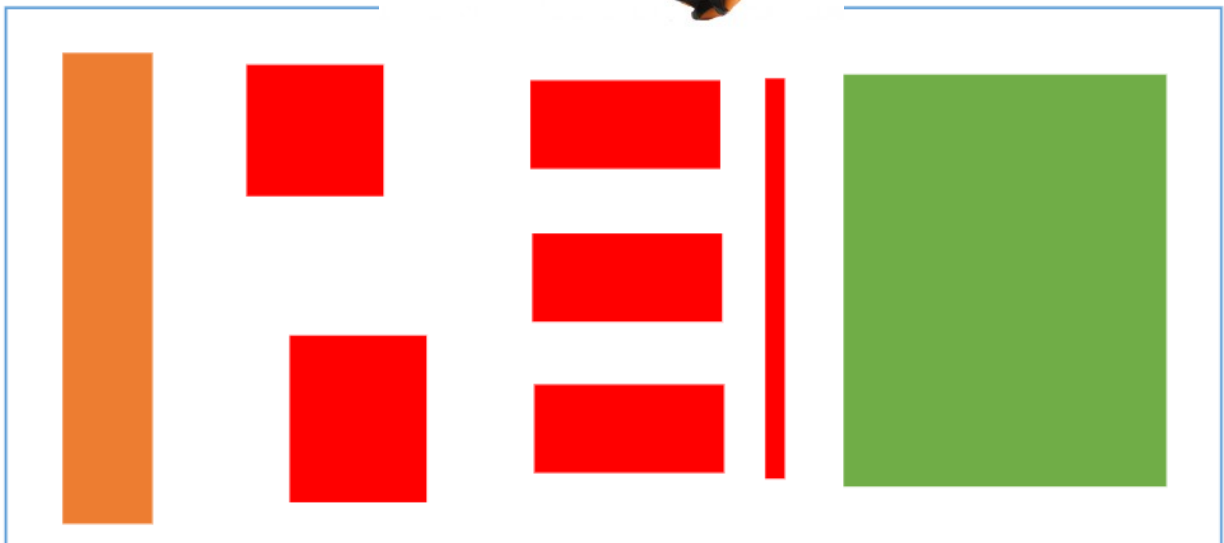


## Write a Program to Control a Youbot with a Joystick

KUKA Youbot is a holonomic mobile robot that is able to move on a flat surface. The diagram below shows a simplified map of our lab. The orange region represents the area where the Youbot will be stored. The red regions are potential obstacles on the floor. The green region is where we do experiment with the Youbot. The student will need to write a program (preferably a Robot Operating System package) that allows any user to remotely drive the Youbot with a provided joystick to navigate around our lab. In addition, the program will also serve as a safety guarantee to allow the user to fully stop the Youbot at any time by pressing a button on the joystick.



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