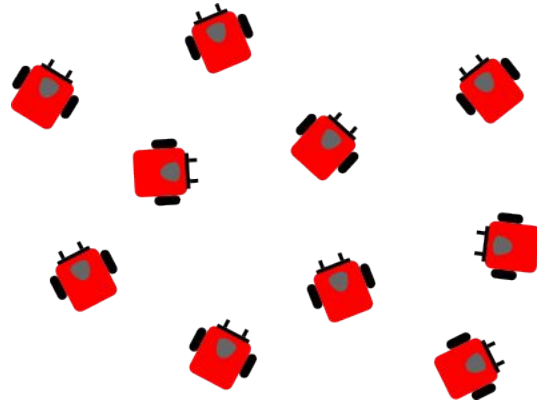


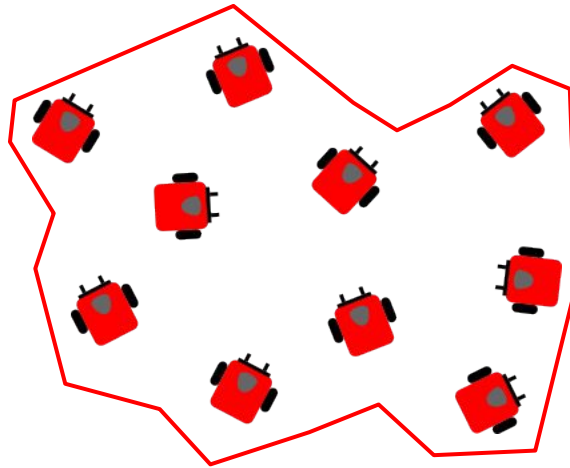
Swarm Robot Control

Unknown Number of Robots

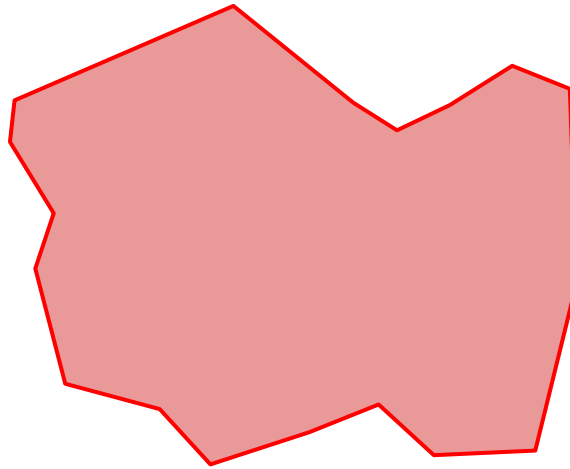
Robots are in an area



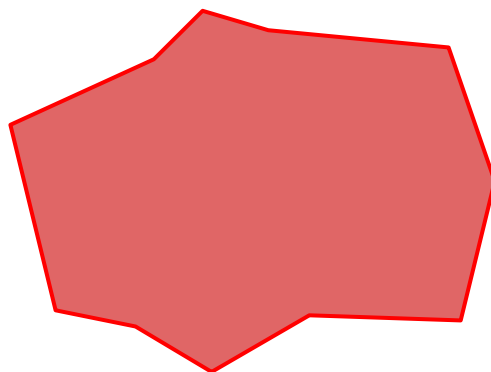
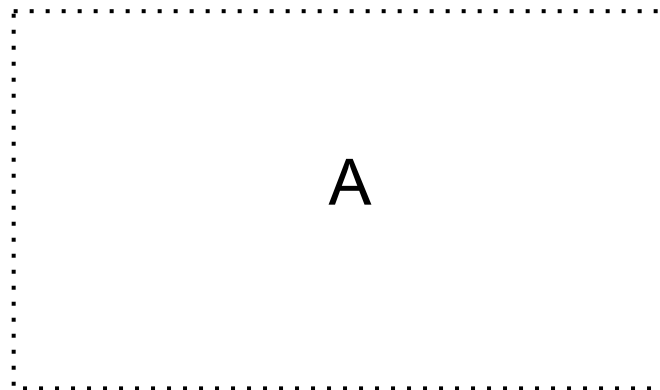
**The cloud outline encloses the area
the robots are in**



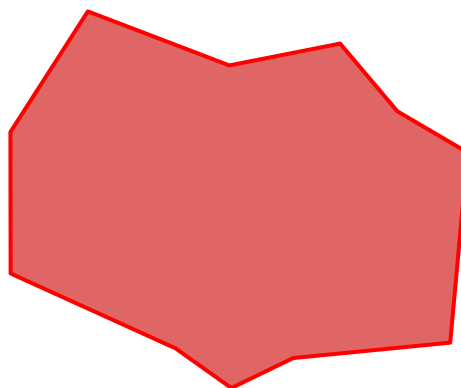
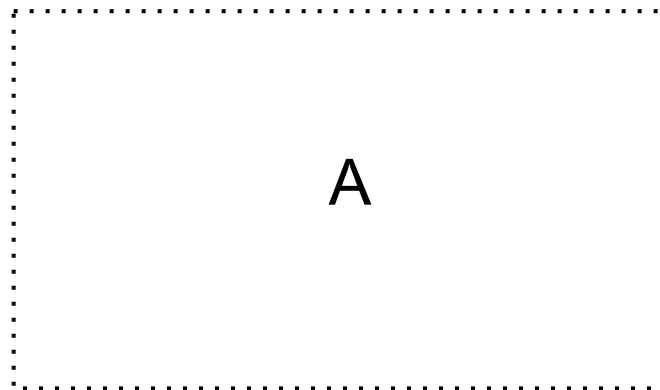
But the number of robots and their exact location is unknown



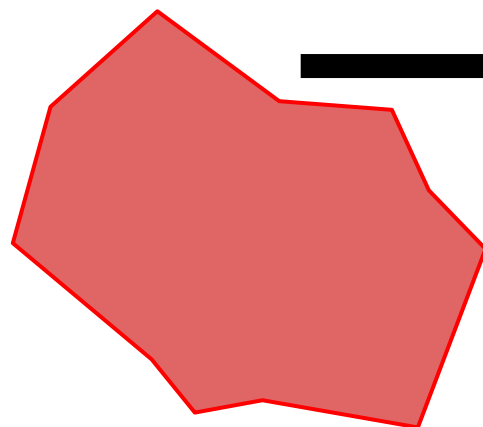
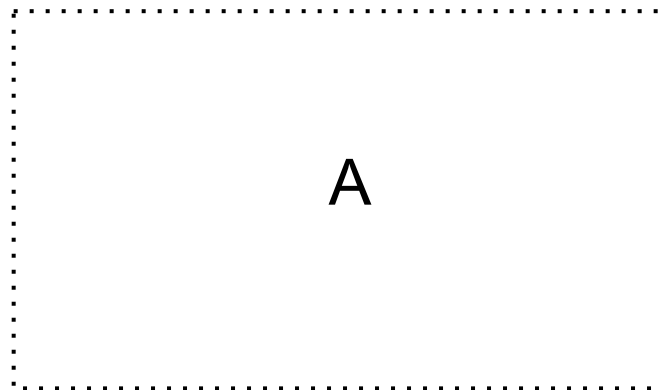
Move the robots to Area A



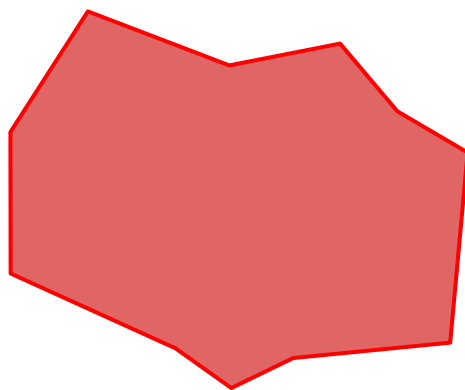
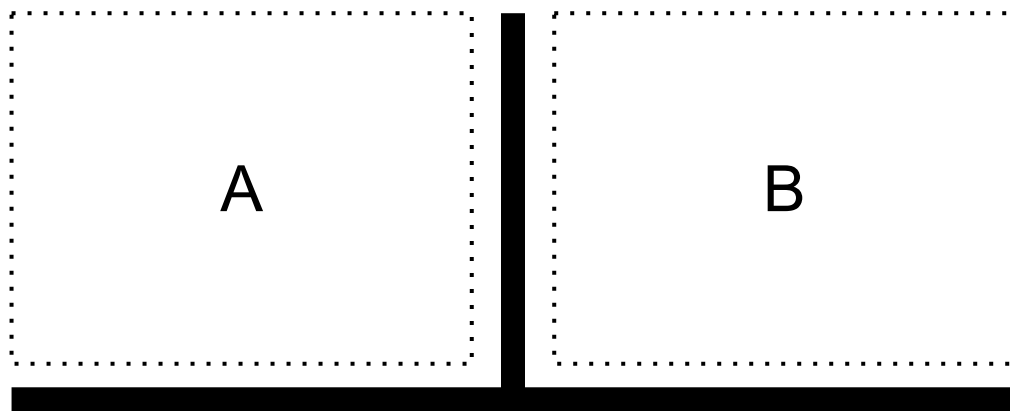
**Move the robots to Area A
with a wall in the way**



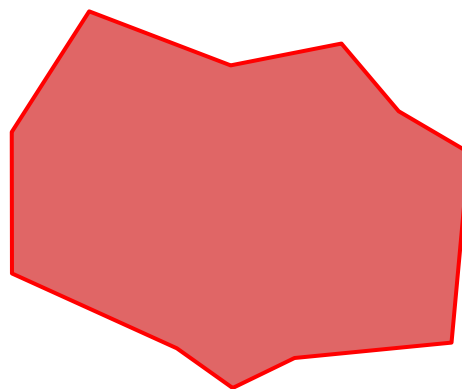
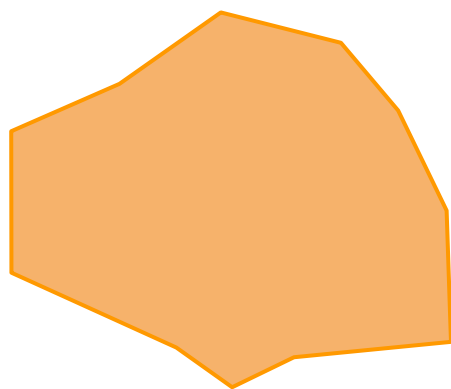
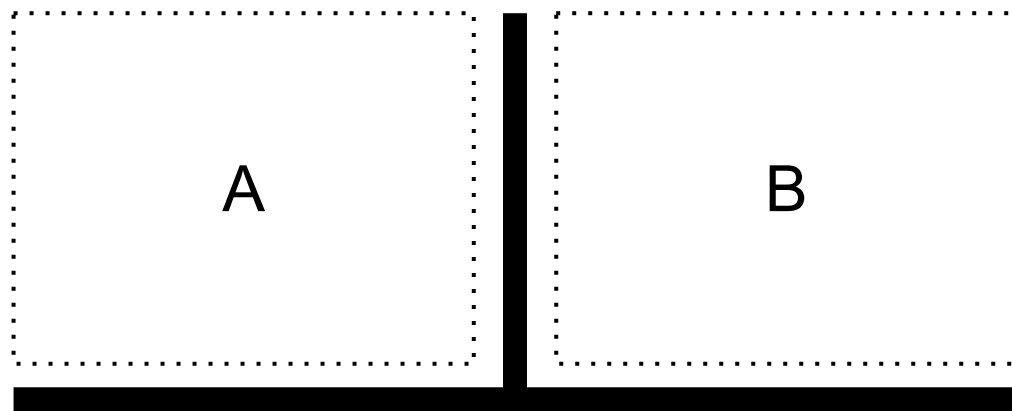
Stop the robots



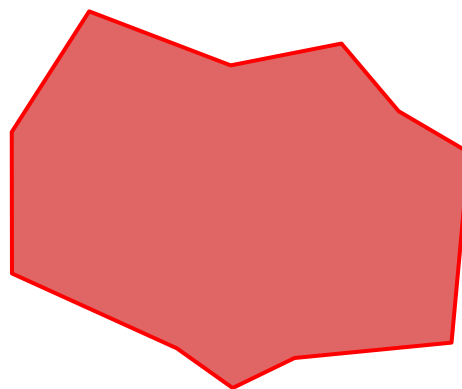
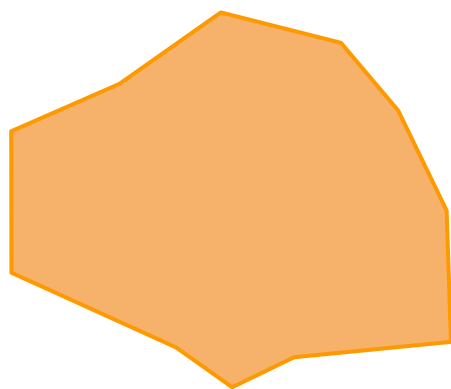
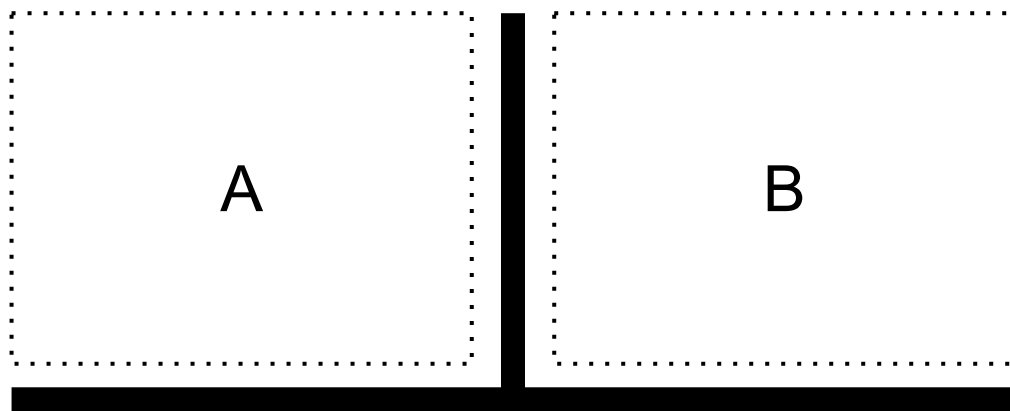
**Divide the robots around
an obstacle**



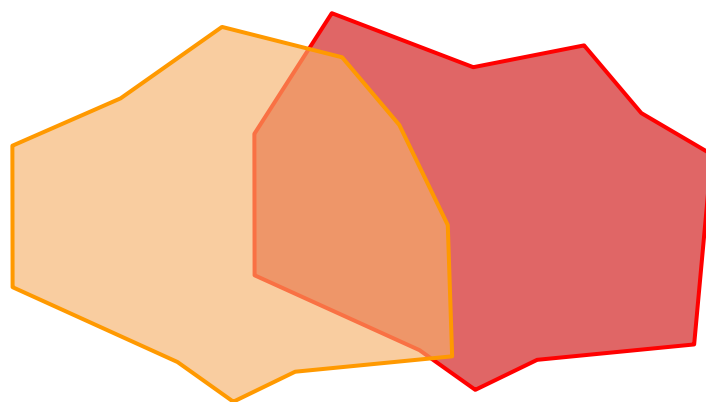
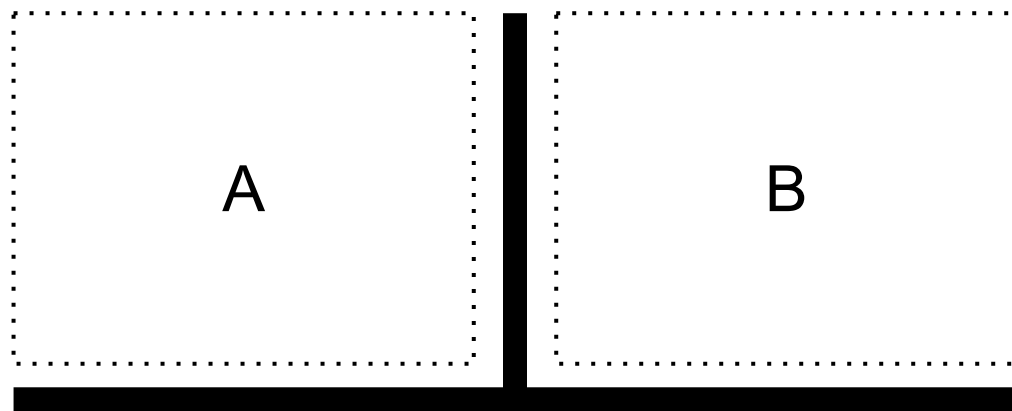
**Move the orange robots
to area B and the red
robots to area A**



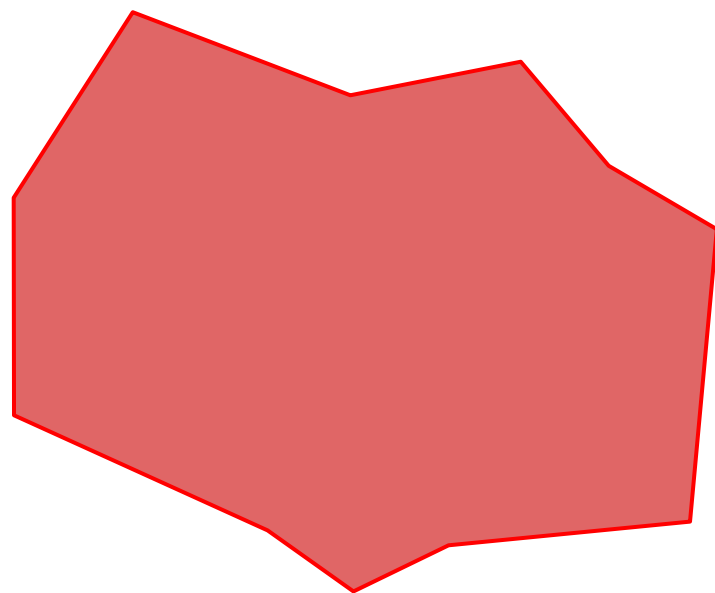
**Move the orange robots
to area A and the red
robots to area B**



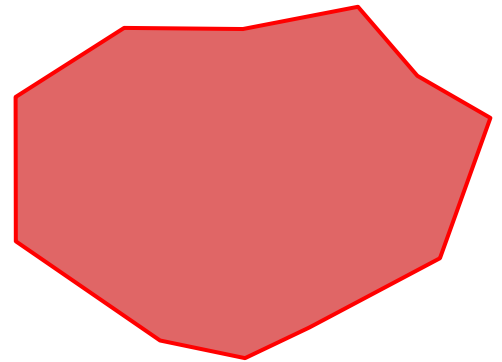
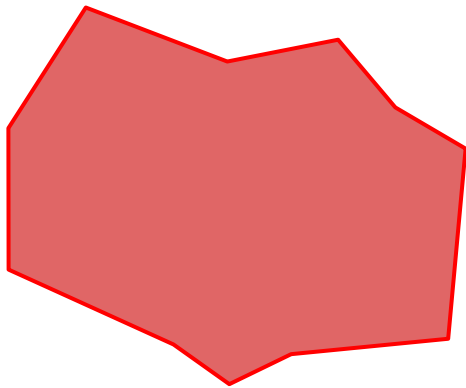
**Move the orange robots
to area A and the red
robots to area B**



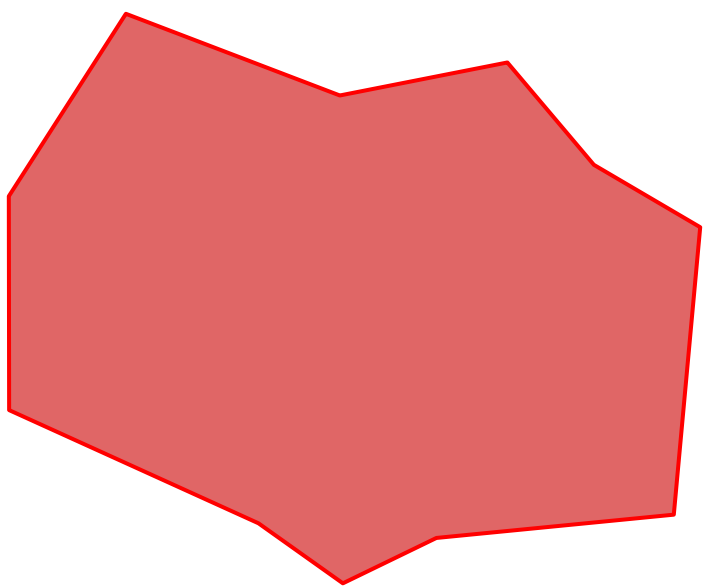
Divide into two groups



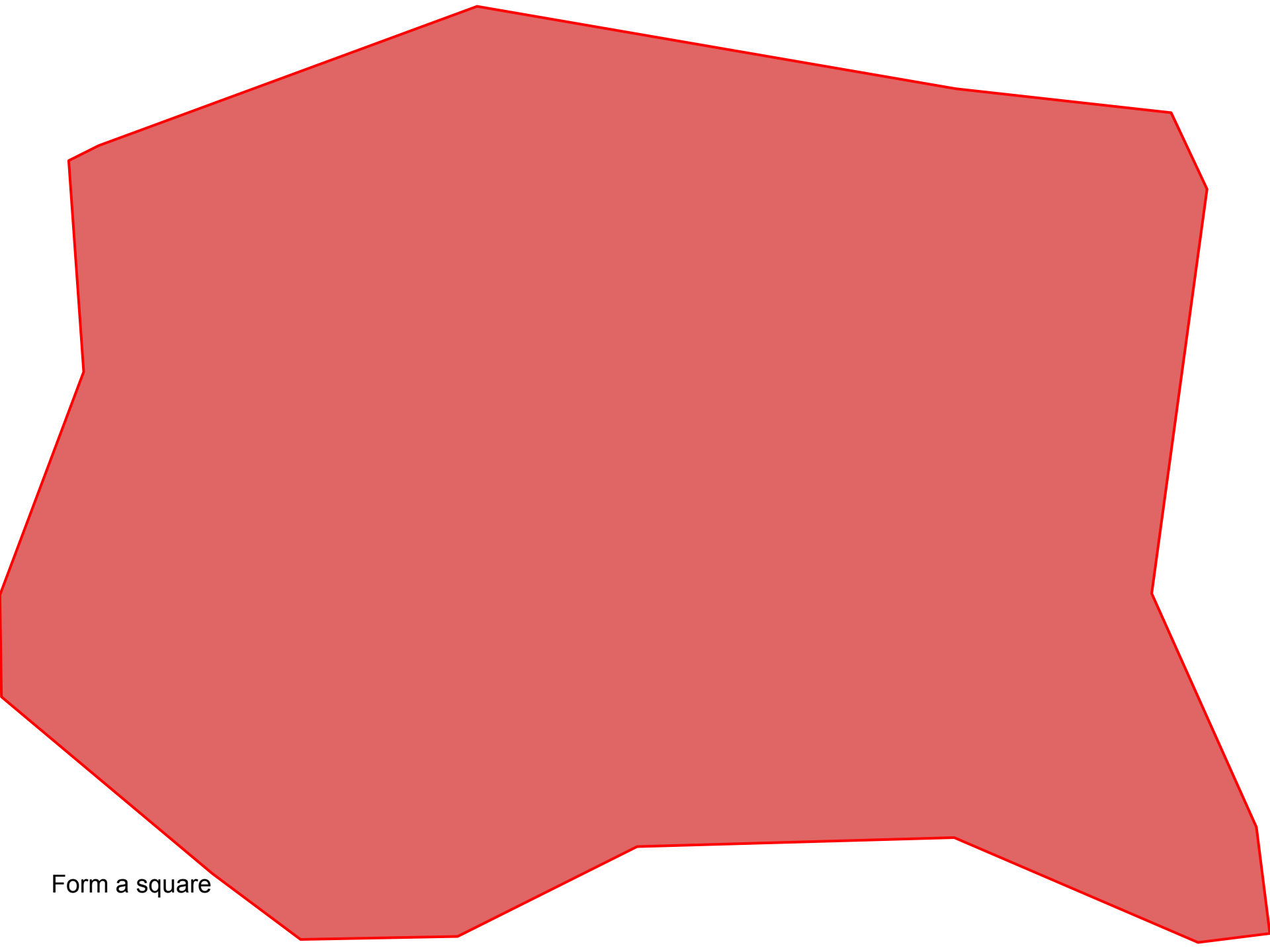
Merge two groups



**Tell the robots
to form a line**

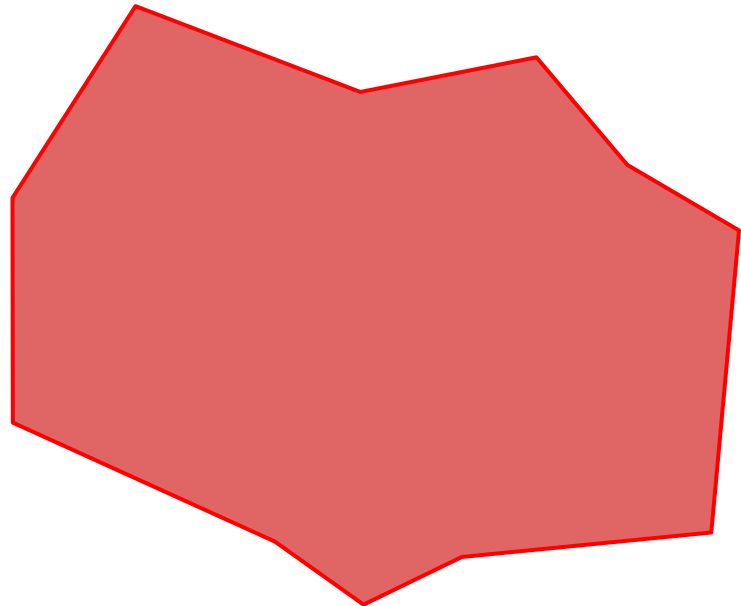
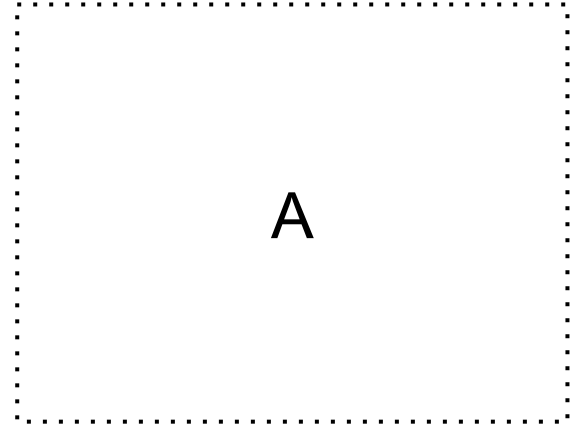
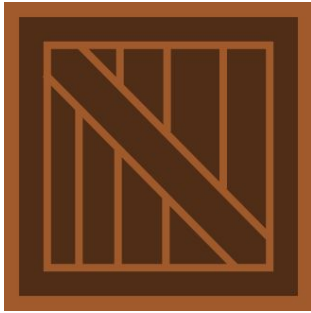


**Tell the robots
to form a square**

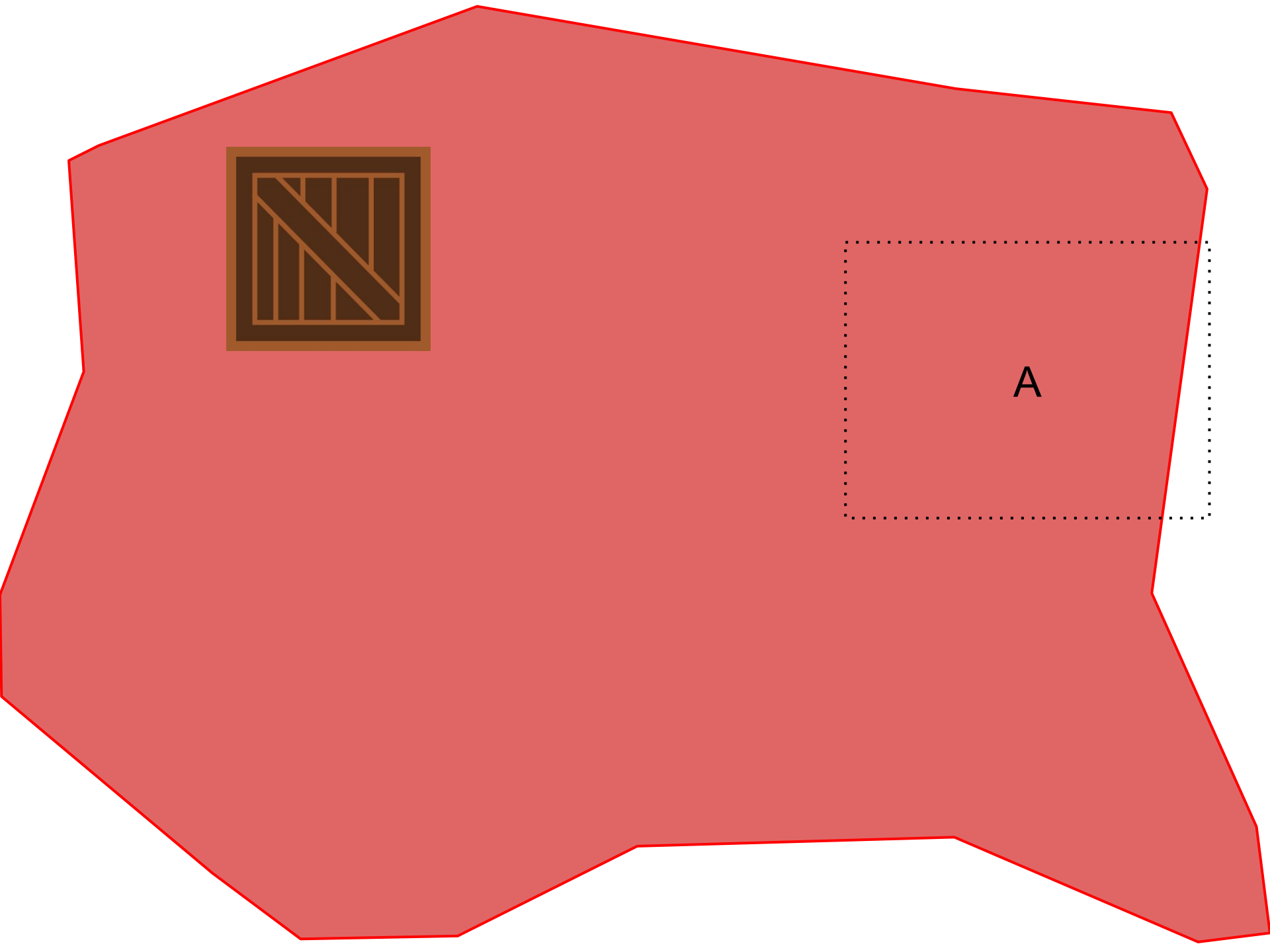


Form a square

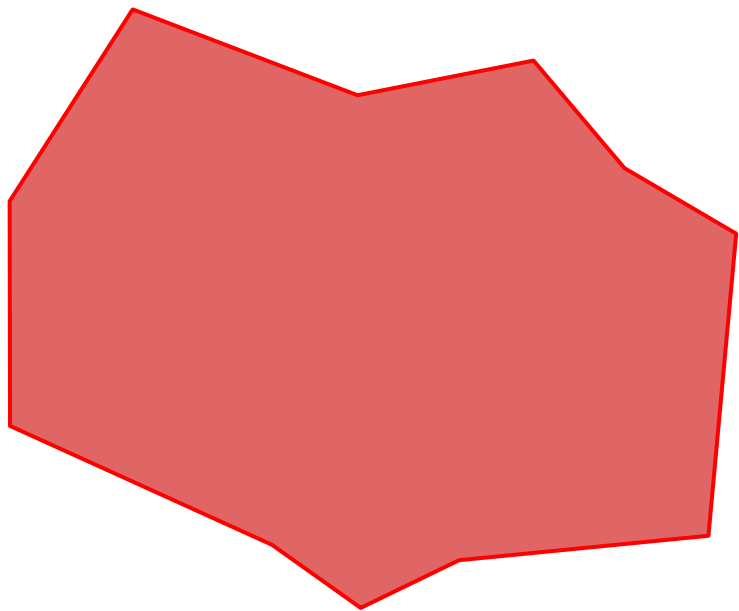
**Move the crate
to area A**



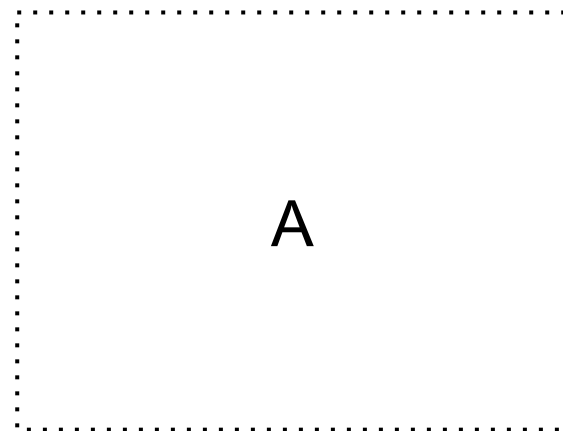
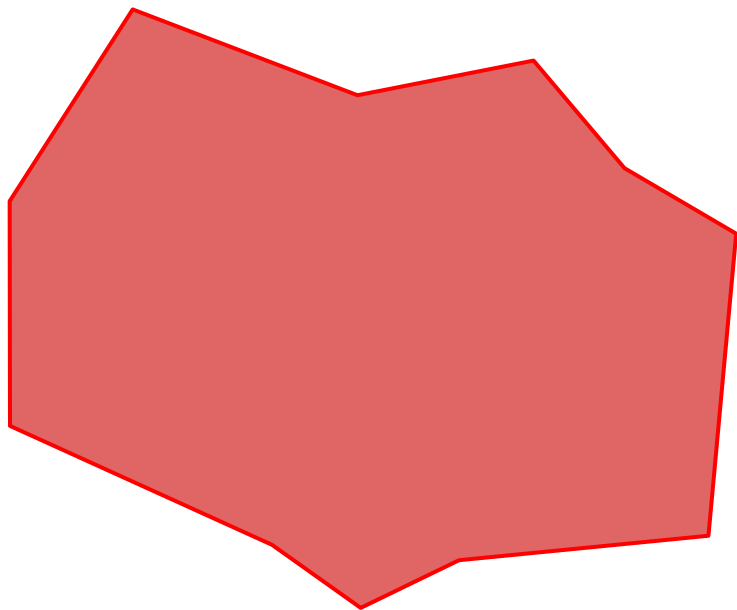
**Move the crate
to area A**



Patrol the screen border



Patrol area A



**Disperse over the screen
area**

