Mr. Martin
Economics
Assembly Line Activity

BACKGROUND INFORMATION

The use of assembly lines to produce products is common in modern manufacturing. Assembly lines are based on the **division of labor** concept – a belief that workers can produce more when they concentrate on a few tasks as opposed to many tasks. Today we will attempt to see if the division of labor concept increases **productivity** by constructing state of the art robots.

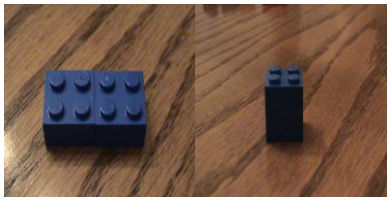
Part of the class will be divided into assembly lines, while some will construct the entire robot by themselves. At the end of the activity we should see which method is more productive.

ASSEMBLY OF LEGO ROBOTS

The assembly of the Lego robot is a seven step process and should be completed in the following order:

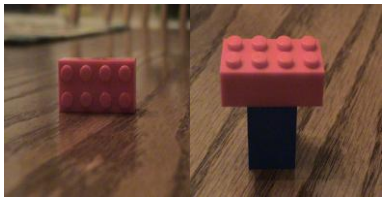
Step 1: Construction of the body

The robot's body consists of 2 squares of equal size stacked directly on top of each other. To keep your robot from having an identity crisis, the squares for the body must be the same color.



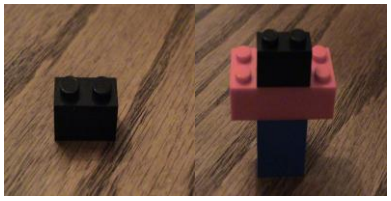
Step 2: Add the shoulder

Your robot will need a place to put his head and his arms. Place the block on top of the body created in step 1.



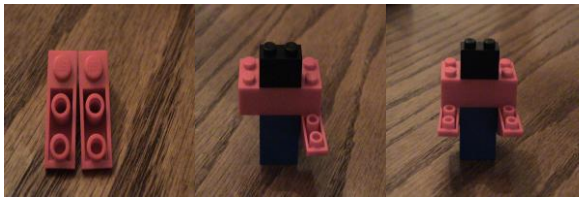
Step 3: Give your robot a head

Place a head on the robot by taking the correct block and putting it atop the shoulder from step 2. The block should be placed in the middle on the front half of the shoulder.



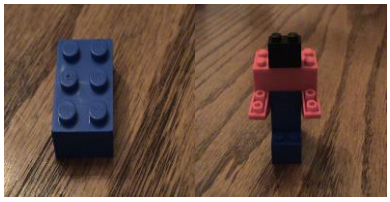
Step 4 & 5: Give your robot some arms

Arms are placed underneath the shoulder, one at a time. Both arms must be the same color.



Step 6: Give your robot some feet to stand on

Place the robot atop a block to give it feet.

 Now, that's a good looking robot!

Step 7: Quality Control

A quality control check will make sure that the robot:

- has the same color blocks in the middle of the body (see step 1)
- has two arms of the same color (see step 4)
- can stand up on its own