

Work Instruction #1 – Logistics

You operate the fork lift. Pick materials from the warehouse and drive them to the stations.

Pick the WIP boxes during the game to bring parts from station to station.

Speak with your team mates to see which and when materials are needed.

Work Instruction #1 – Station 1

Assemble the spring and the pen lead at Station 1. The spring can only be gripped with the red tool and the pen lead just with the black tool.

Work Instruction #1 – Station 2

Station 2 assembles the pen tip on the pre-assembled components from station 1.

The pen lead must be handled with the black tool.
The pen tip can be handled by hand.

Work Instruction #1 – Station 3

Mount the shaft of the pen to the pre-assembled components. First pick the pen lead with the black tool and hold the pen tip with your second hand on top. Now turn the components 180 degrees to point the tip of the pen downwards. Release the pen lead and put the black tool back to the workbench. Put the pen body by hand from the top onto the components and mount them together.

Work Instruction #1 – Station 4

At station 4, assemble the connector to the pre-assembled components. Therefore, pick the connector with the red tool and mount it onto the pen lead inside the body. The connector must be picked by the red tool.

Work Instruction #1 – Station 5

At station 5, mount the pen cap onto the pre-assembled components. Pick the cap by hand.

Work Instruction #1 – Station 6

Station 6 is the packaging station. The assembled pens are labeled here. Cut a 15 cm string and attach the correct label to the pen. To do this, pull the string through the label and tie it on the pen cap. The labeling is mandatory for transport.

Do the following:

Attach the label with the blue string to the blue pen.
Attach the label with the black string to the black pen.

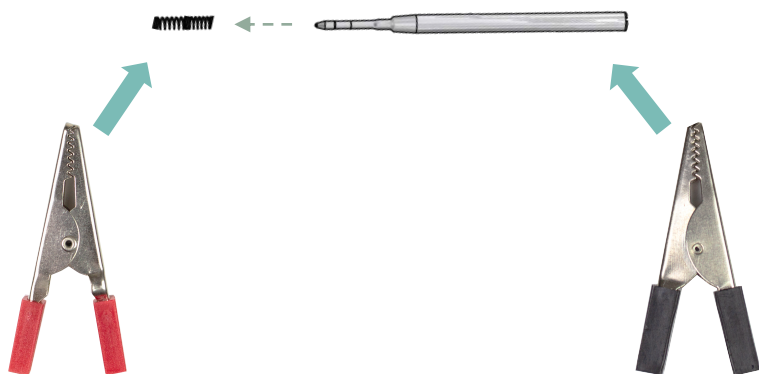
Work Instruction #1 – Station 7

You are responsible for quality assurance. Test each fully assembled pen according to the quality card.

If the pens are perfect, then position them directly on the customer request.
If a pen shows deviations from the quality card, put the pen in on the Defects / Failure surface.

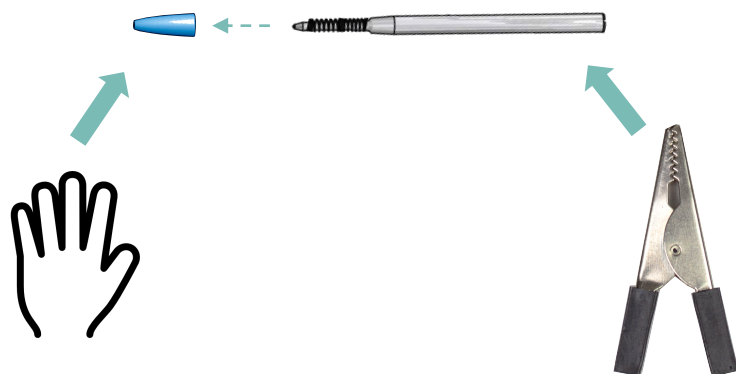
Work Instruction #2 – Station 1

Assemble the pen lead and spring



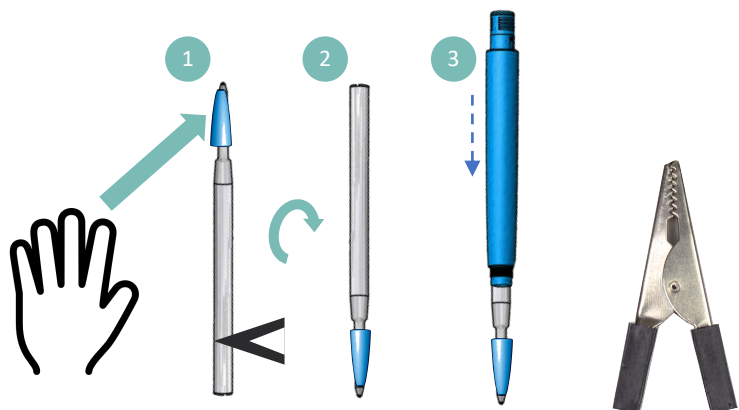
Work Instruction #2 – Station 2

Assemble the pen tip



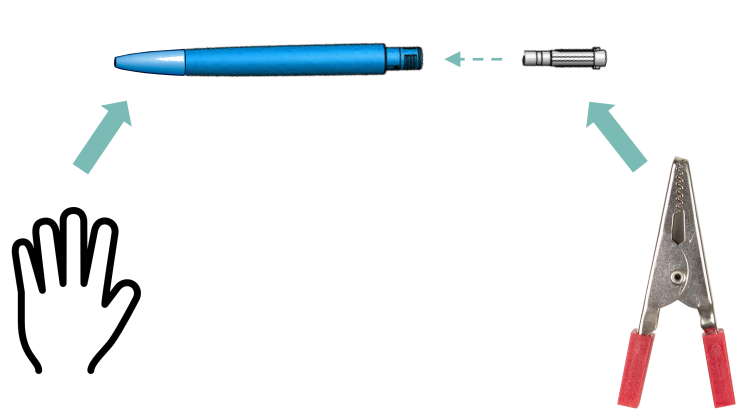
Work Instruction #2 – Station 3

Assemble the shaft



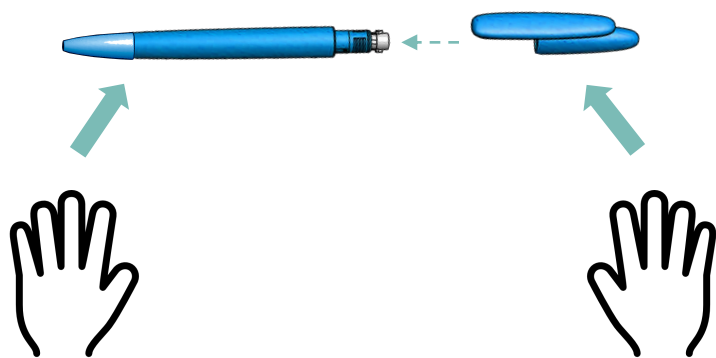
Work Instruction #2 – Station 4

Assemble the connector



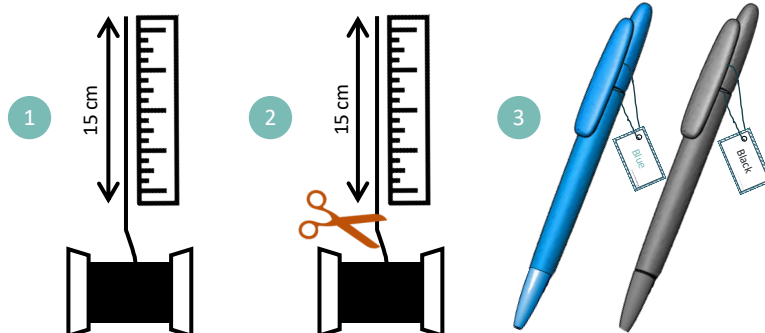
Work Instruction #2 – Station 5

Interlock the pen cap



Work Instruction #2 – Station 6

1. Measure 15 cm from the string coil
2. Cut the string
3. Lash it onto the pen cap



Work Instruction #2 – Station 7

Test each assembled pen according to the quality card.

	1	2	3	4	5	6	7	8	9	10
Function test	✓	✓								
Label attached?	✓	✓								
Color as specified at label?	✓	✓								
Lead color matching pen?	✓	✓								
Approved	✓									
Re-work										

Quality Card – Round 1

LeanActivity

Customer Request

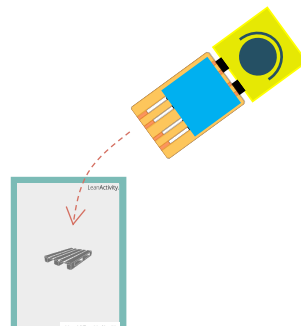
Place the pens in the shipping area. Finished pens have to be finished in sequence until this card.

Defects / Failure

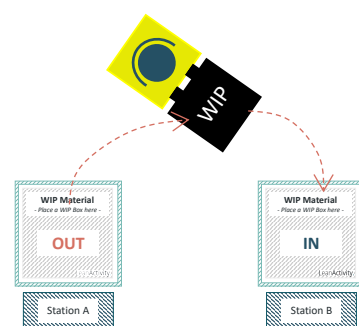
Place the pens here that have defects or were not made to order.

Work Instruction #2 – Logistics

Pick materials from the warehouse and drive them to the right stations.

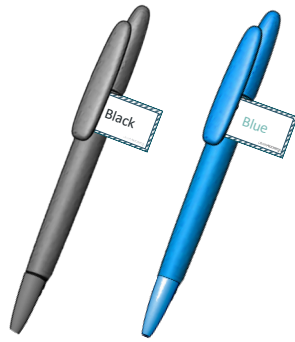


Pick the WIP boxes during the game to bring parts from station to station.



Work Instruction #3 – Station 6

Clamp the label under the pen cap



Work Instruction #3 – Logistics

