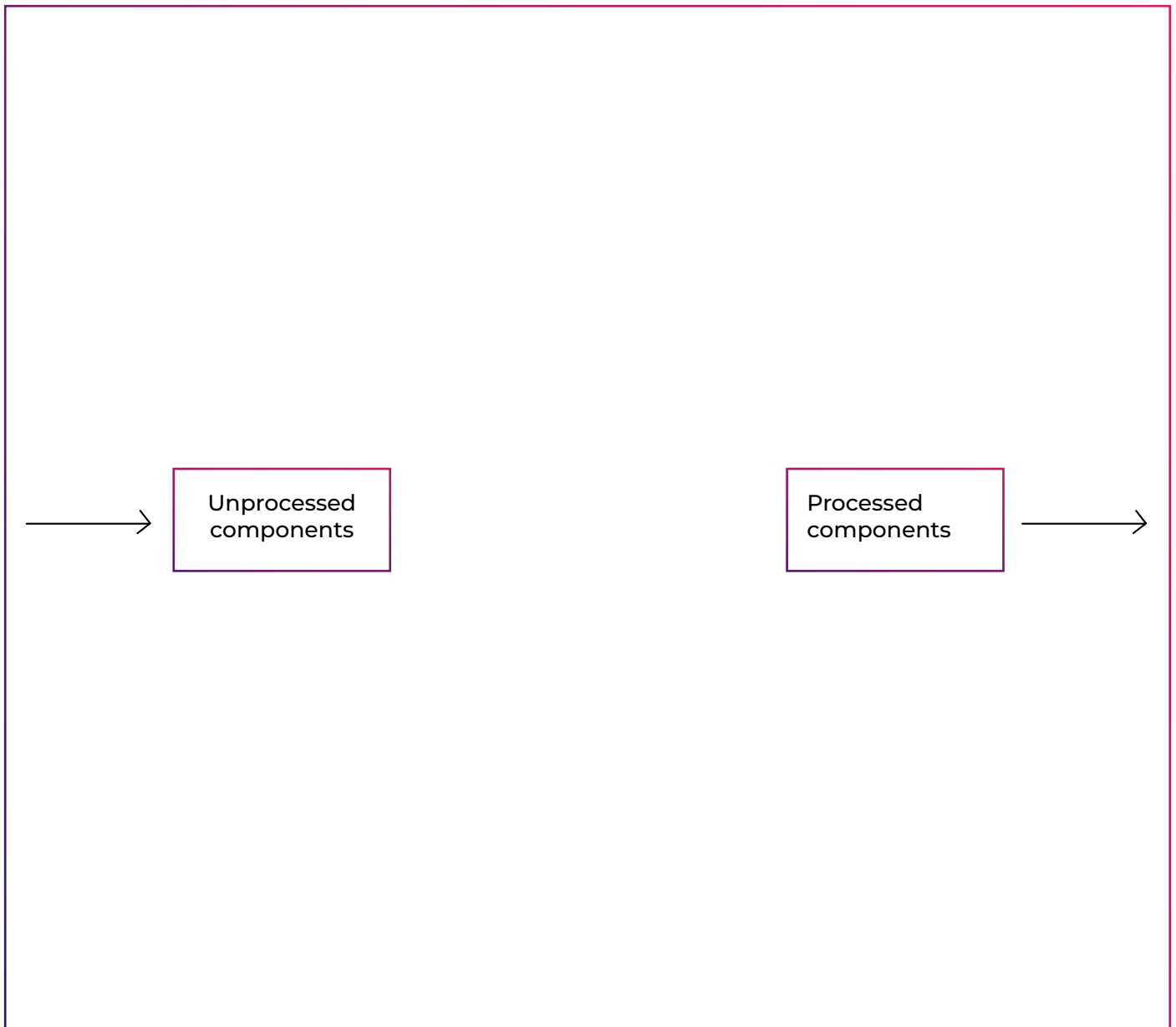
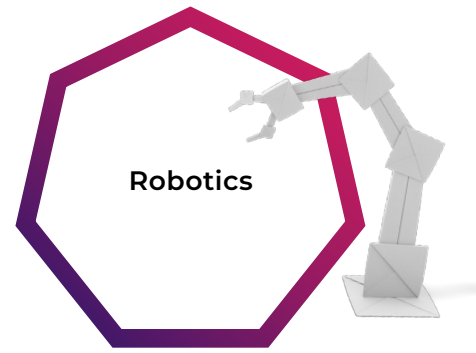


Activity sheet 9

Plan your robotic work cell. Your cell plan shows how work will enter and leave the cell.

- Choose whether your work cell will be robot-centred, in-line or mobile.
- Select what type(s) of robot you will include in your work cell: articulated, SCARA, delta, spherical, polar/cylindrical, cartesian/gantry.
- Identify where you will locate the CNC mill and CNC drill.
- Sketch the position and size of each robot on the cell plan. Label them to describe the key operational steps.
- Sketch a plan view of each robot's work envelope.
- Choose how material will flow through the work cell: synchronised, continuous, non-synchronised.





Activity sheet 10

Add the following safety devices to your work cell plan on **Activity sheet 9**. Explain below how each one will make the work cell safe.

List some safe working practices that should take place in the following two parts of the process.

Fences and guards

Hold and emergency stop buttons

Presence sensors

Enabling device/dead man's switch

Enabling device/dead man's switch

Interlocks

When the work cell is in **design**
(being planned and programmed)

When the work cell is in **operation**