

Robotic Task Mapping Template

1. Identify Cell Customer

 **Who / what receives the parts that the cell is making?**

2. Cell Output

"What is considered as good for the next step? (How it defines value)

- Part specifications**
- Part presentation**
- Cadence"**

 **"What I need you to give me to do my work is ... so I can ..."**

 **Drawings, pictures and videos**

2. Cell Output

- ➡ **Part presentation - How are the parts arranged at output?**
- ➡ **Are the parts singulated? What is the space around them?**
 - **Placed one by one**
 - **Placed stacked on top of each other**
 - **Placed stacked side by side**
- ➡ **What is the packaging?**
 - **On a table**
 - **In a fixture**
 - **In a tray**
 - **Stack of tray**
 - **Random bin**

2. Cell Output

➡ Is the output target moving?

- On a moving conveyor
- On a stable surface

➡ Drawings, pictures and videos

3. Cell Input

➔ Parts

Number of parts

- How many different parts need to be handled, processed at the station?

Characteristics of the parts

- Dimension
- Weight
- Material

Variation in time

- Are there changeovers at this station?
- Are you planning to introduce new parts in the near future?

➔ Drawings, pictures and videos

3. Cell Input

- ➡ **Part presentation - How are the parts arranged at output?**
- ➡ **Are the parts singulated? What is the space around them?**
 - **Come one by one**
 - **Come stacked on top of each other**
 - **Come stacked side by side**
- ➡ **What is the packaging?**
 - **On a table**
 - **In a fixture**
 - **In a tray**
 - **Stack of tray**
 - **Random bin**

3. Cell Input

➡ Are parts moving when presented?

- Stopped when picked
- On a moving conveyor

➡ Drawings, pictures and videos

4. Define Process

- ➡ **List the steps**
- ➡ **What tooling, sensors, sequence will the robotic cell need?**
- ➡ **Value-added, nonvalue added**
- ➡ **Take video**

5. Document Information Flow

➡ What information comes to and goes from the robot controller, where from/to, in which format?

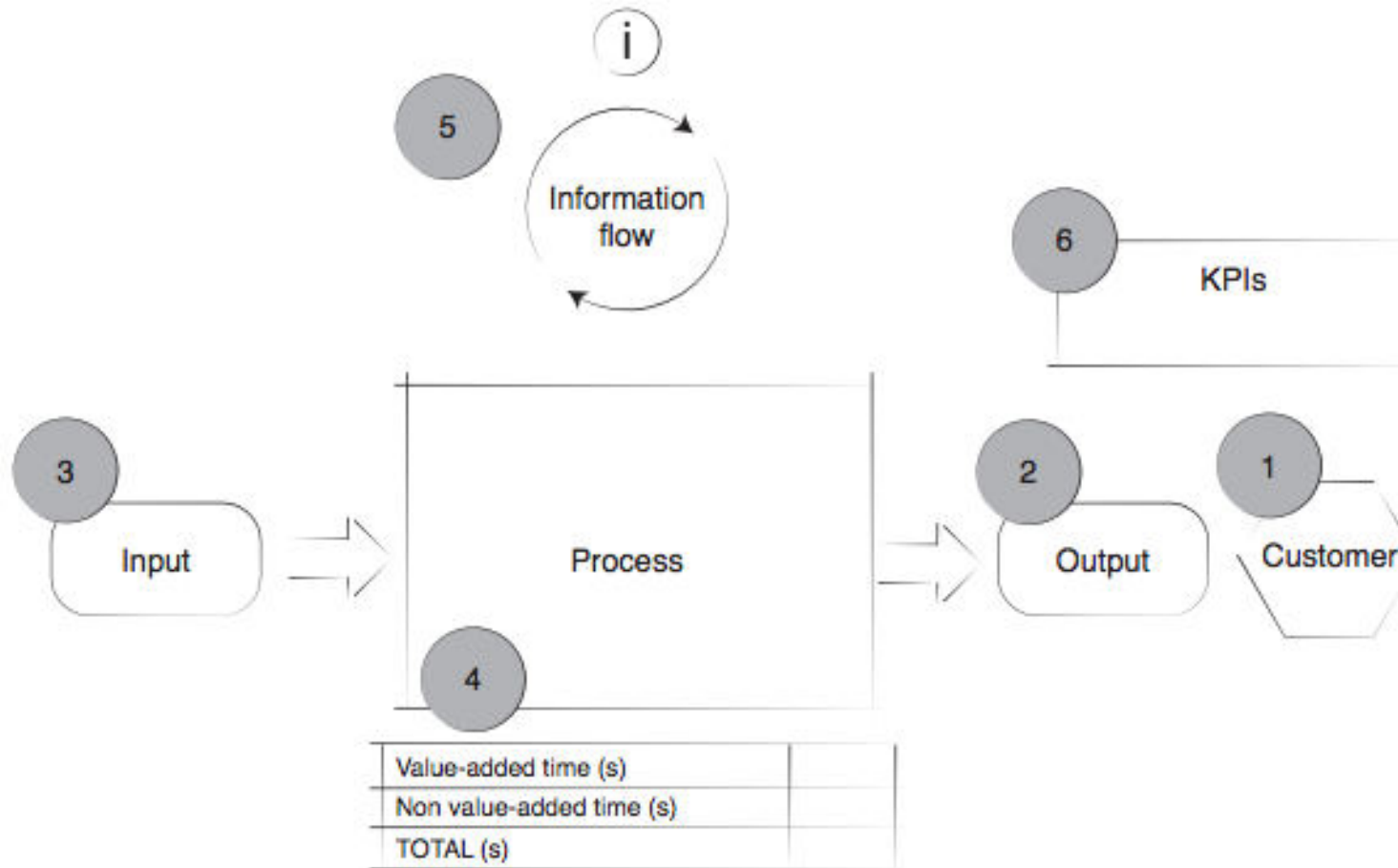
Include communication protocol and data structure if electronically

Information	Coming from	Going to	Format

6. Measure KPI

- ➔ Define KPI targets
- ➔ How will they be measured?

7. Manual Task Summary



8. Sketch Cell Layout

 **Sketch**

 **CAD**



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