



SIMaP

Science et Ingénierie
des Matériaux et des Procédés

Oriaru versus Origami !

Journée AlpesVIEW 2026 | SIMaP | 15/06/2026



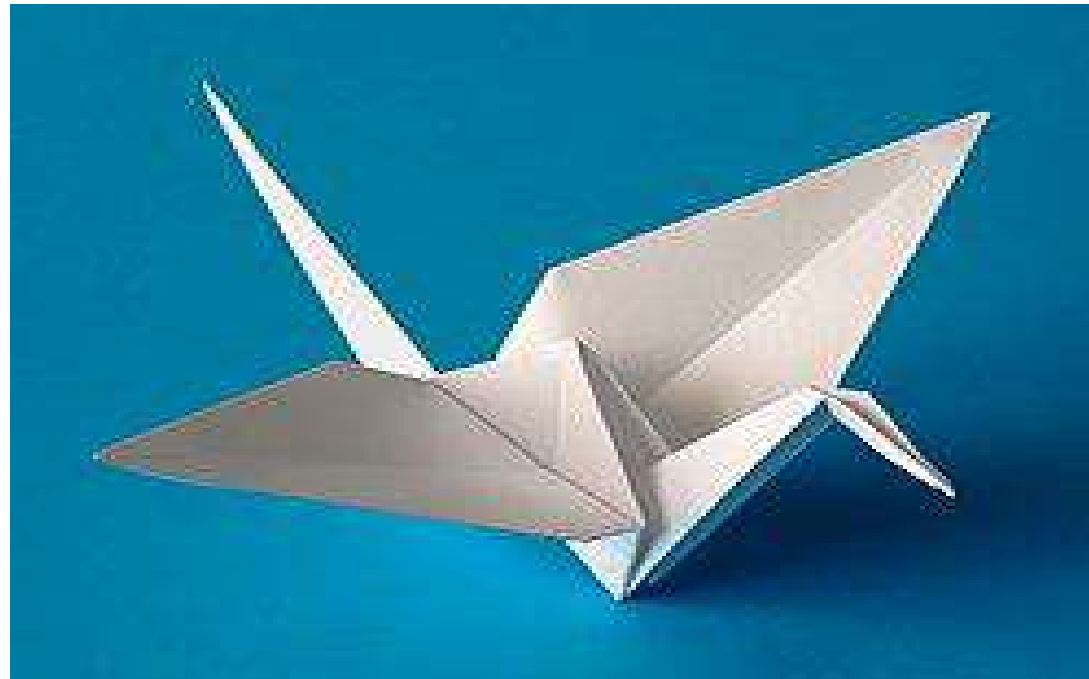
Ch. JOSSEROND

Ingénieur en développement d'expérimentation
CNRS / SIMaP





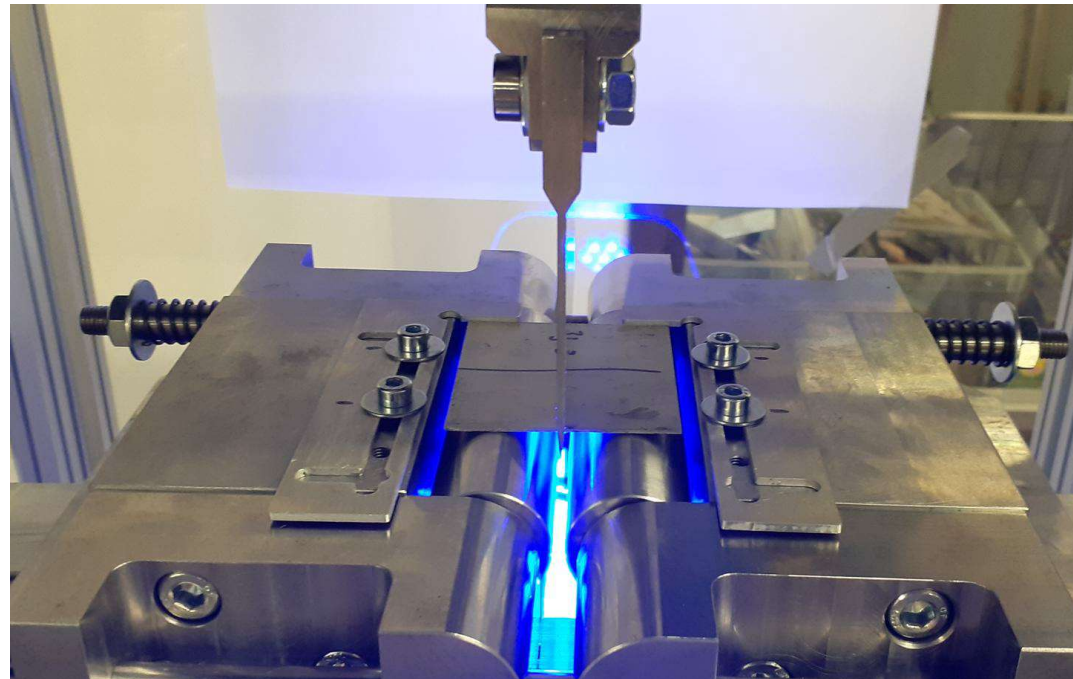
Origami



Plier : Oru → Ori
Papier : Kami → gami



Oriaru



Plier : Oru → Ori

Aluminium : Aruminiumu → aru



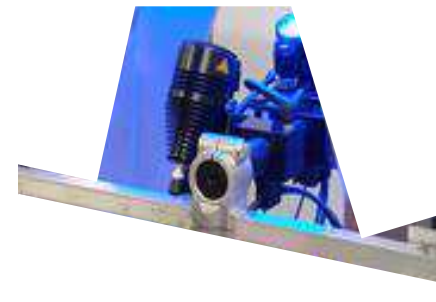
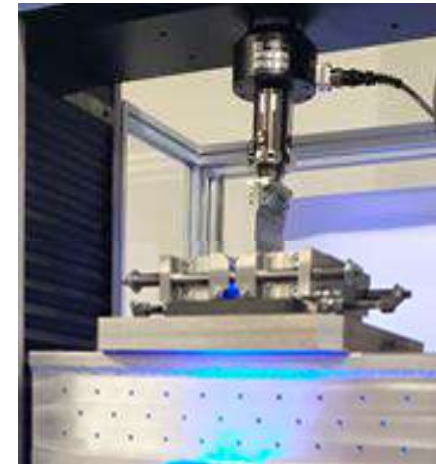
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 - 3) Structure événementielle
 - 4) Machine à états
 - 5) Liaisons USB



1) Le pliage de l'aluminium

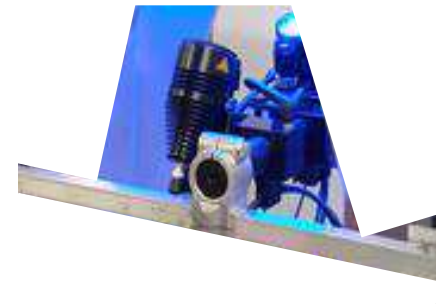
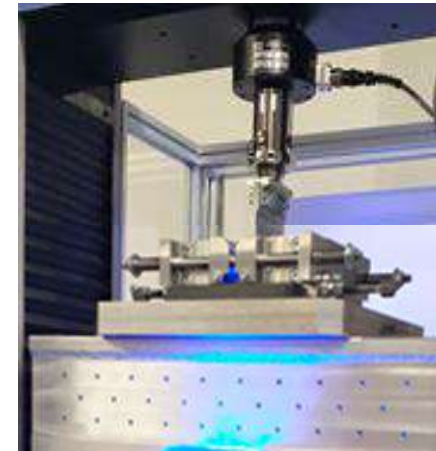
1) Manip à SIMap





1) Le pliage de l'aluminium

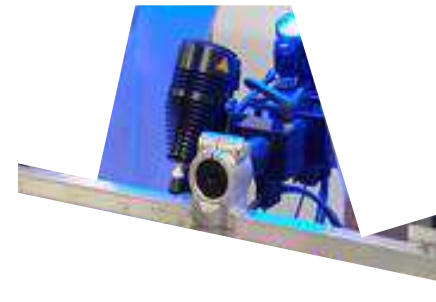
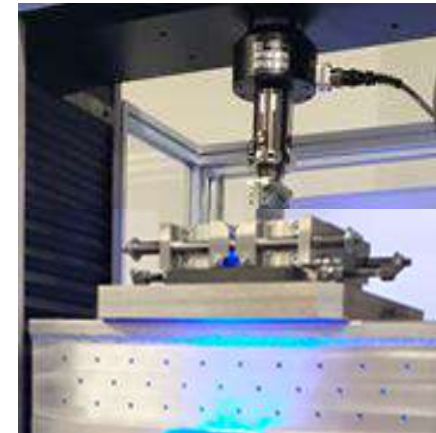
1) Manip à SIMap





1) Le pliage de l'aluminium

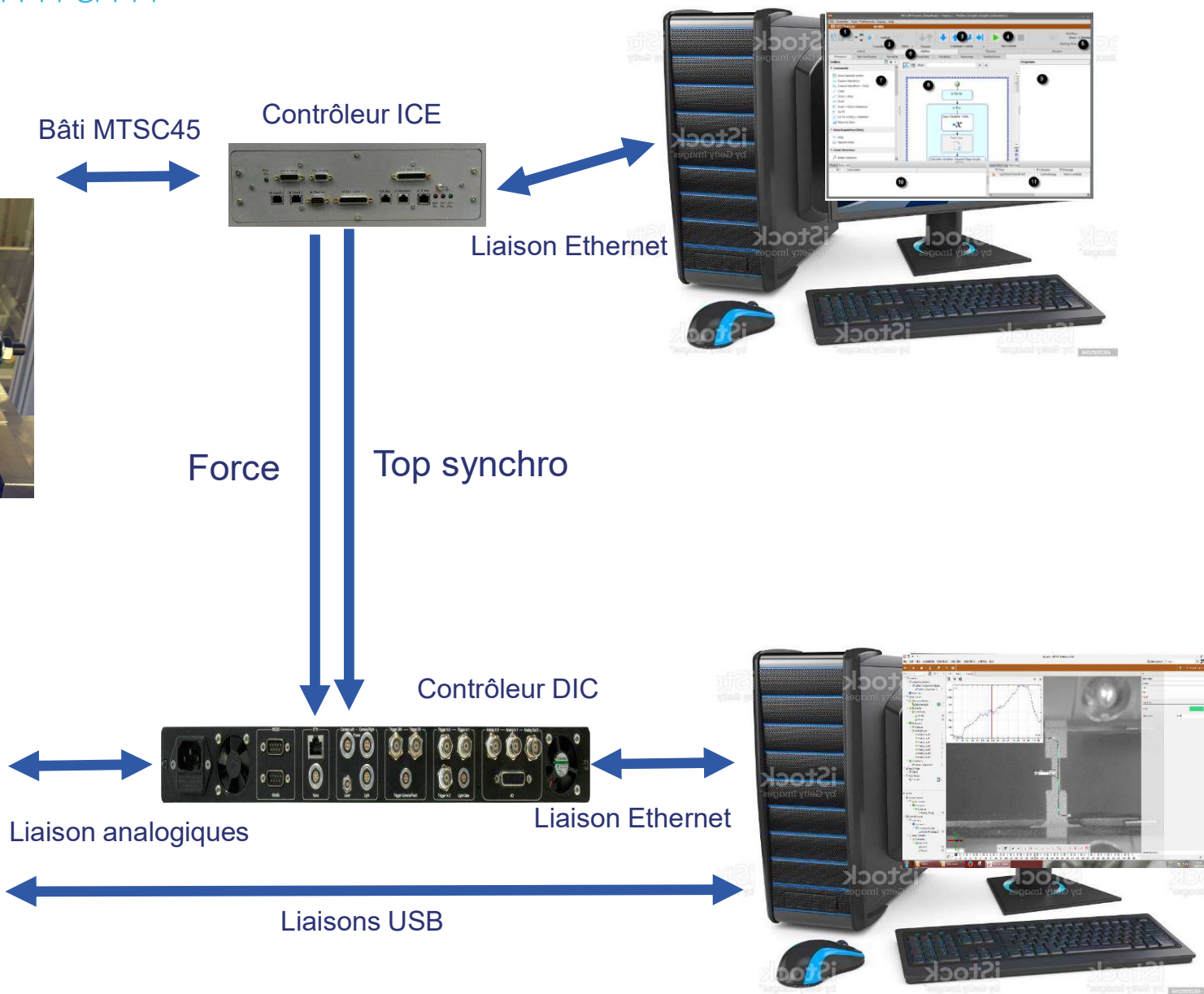
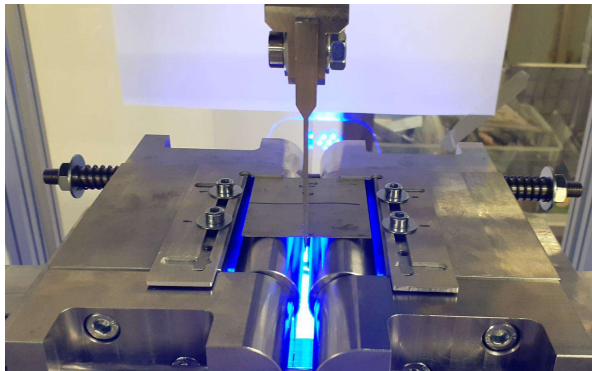
1) Manip à SIMap





1) Le pliage de l'aluminium

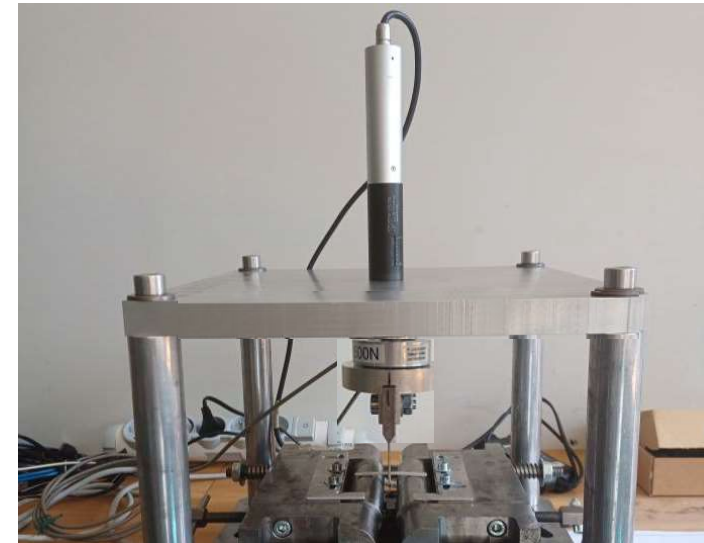
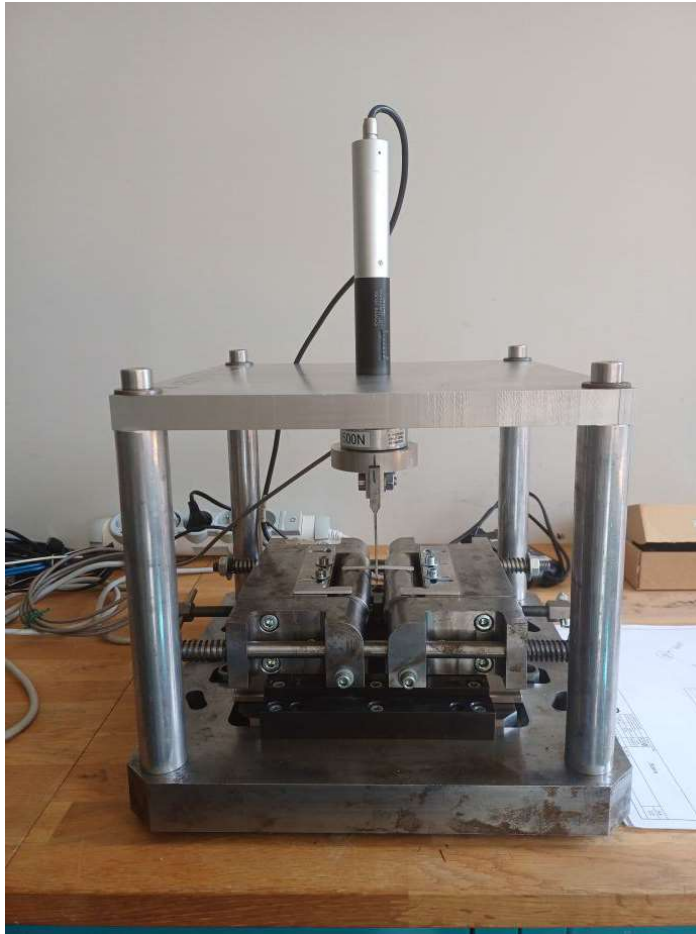
1) Manip à SIMap





1) Le pliage de l'aluminium

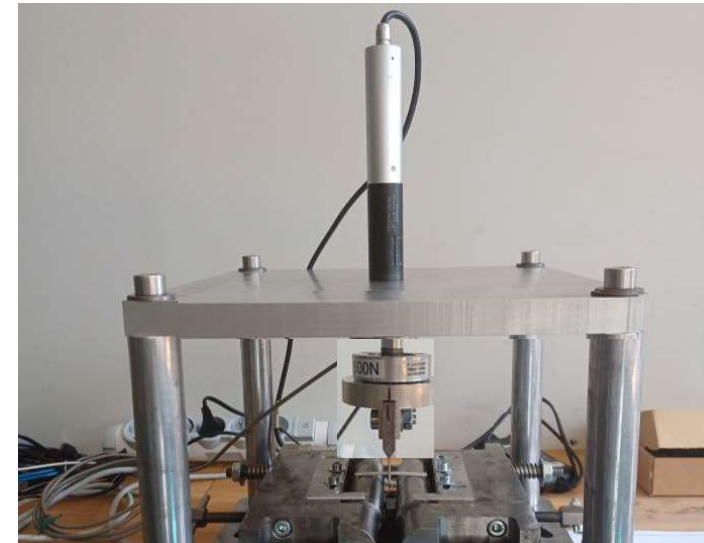
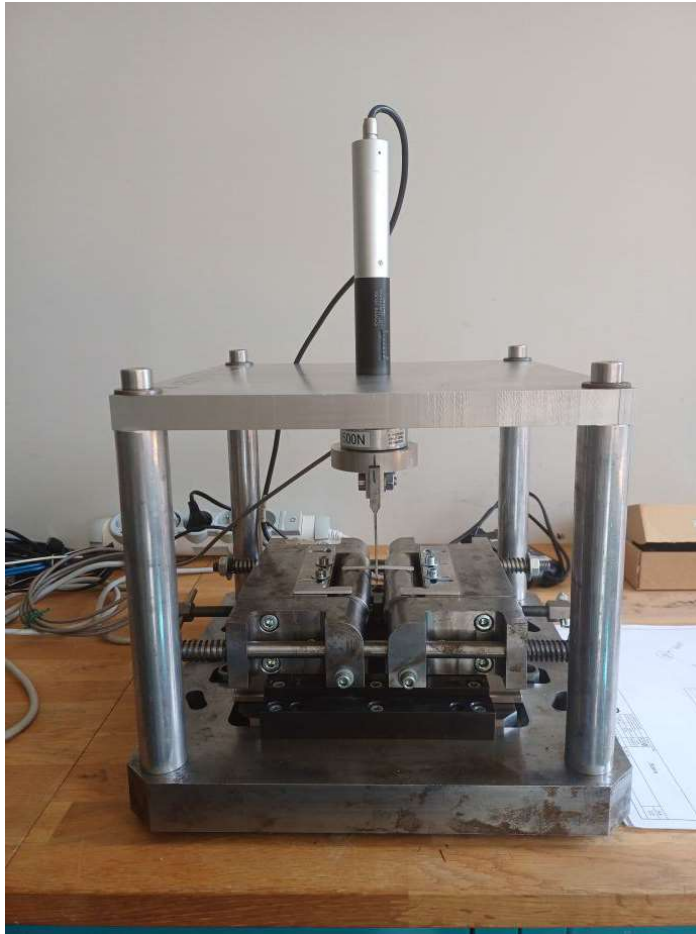
2) Adaptation pour l'ESRF





1) Le pliage de l'aluminium

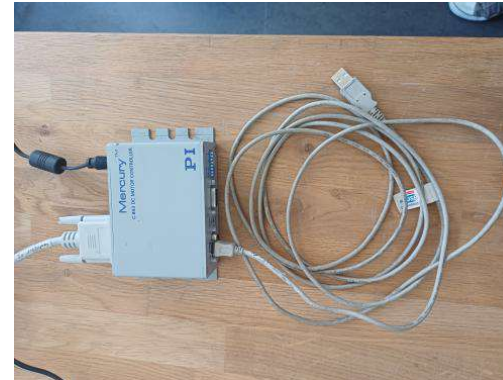
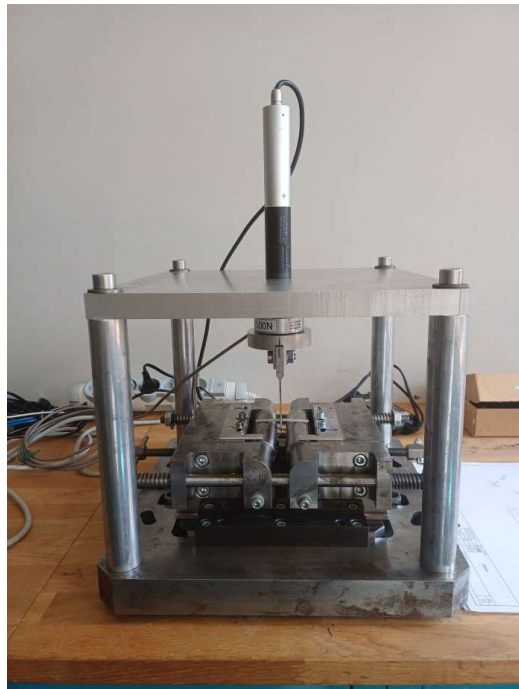
2) Adaptation pour l'ESRF





1) Le pliage de l'aluminium

2) Adaptation pour l'ESRF



PI M235 20G (20mm – 120N)



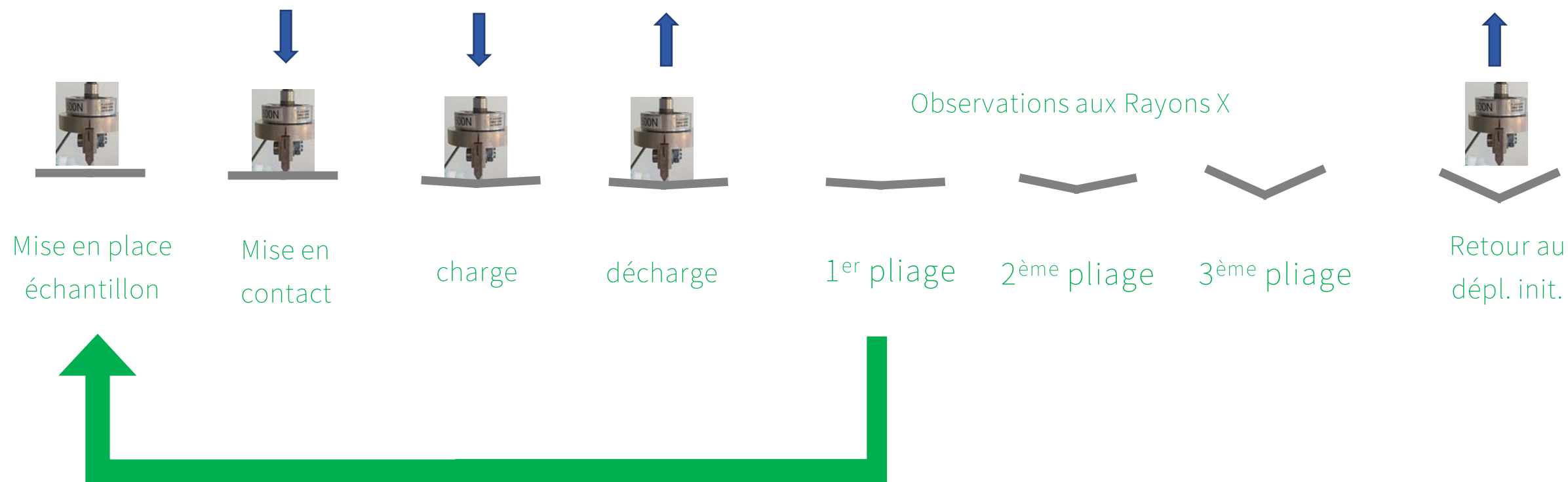
Burster 9206 + capteur 500N





1) Le pliage de l'aluminium

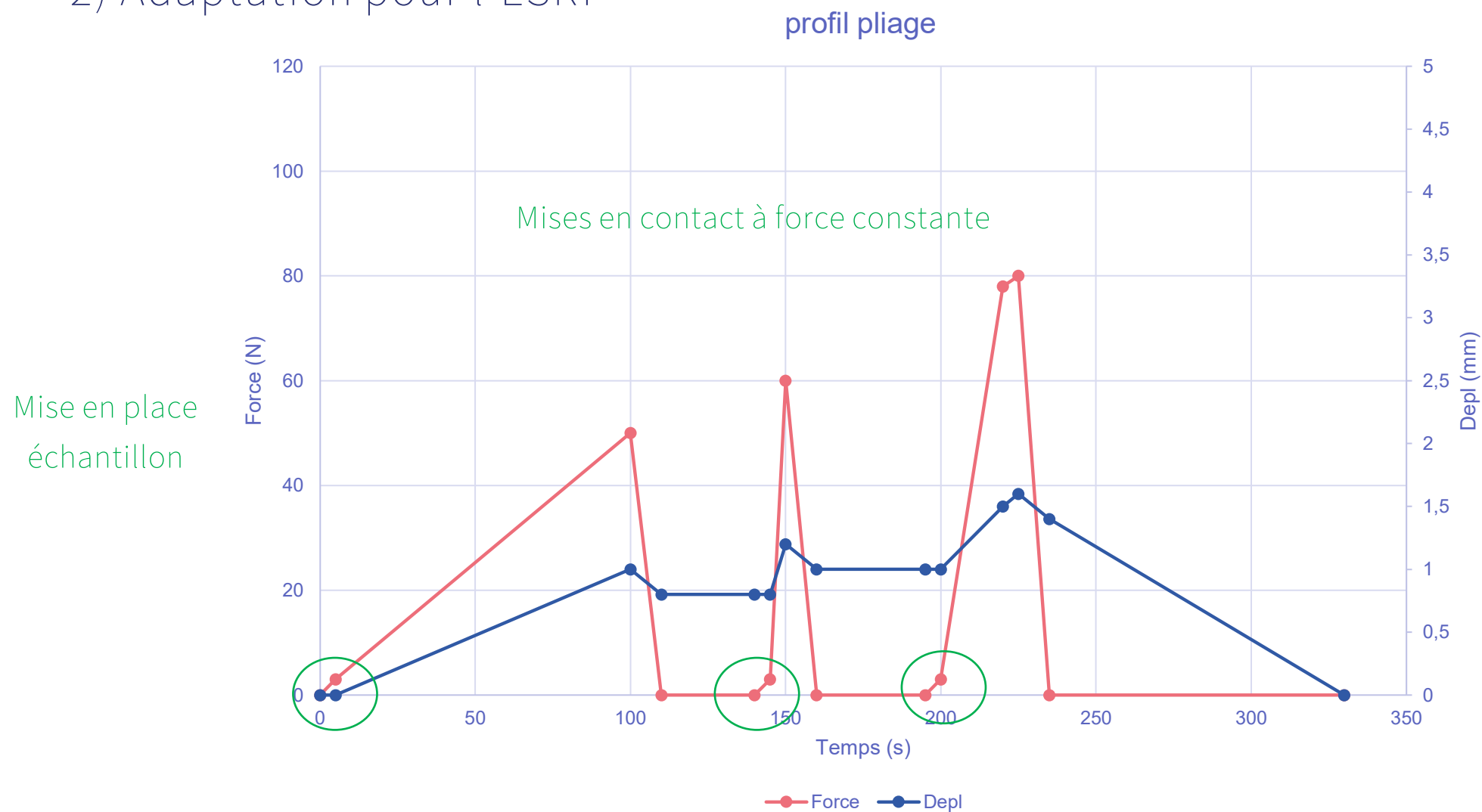
2) Adaptation pour l'ESRF





1) Le pliage de l'aluminium

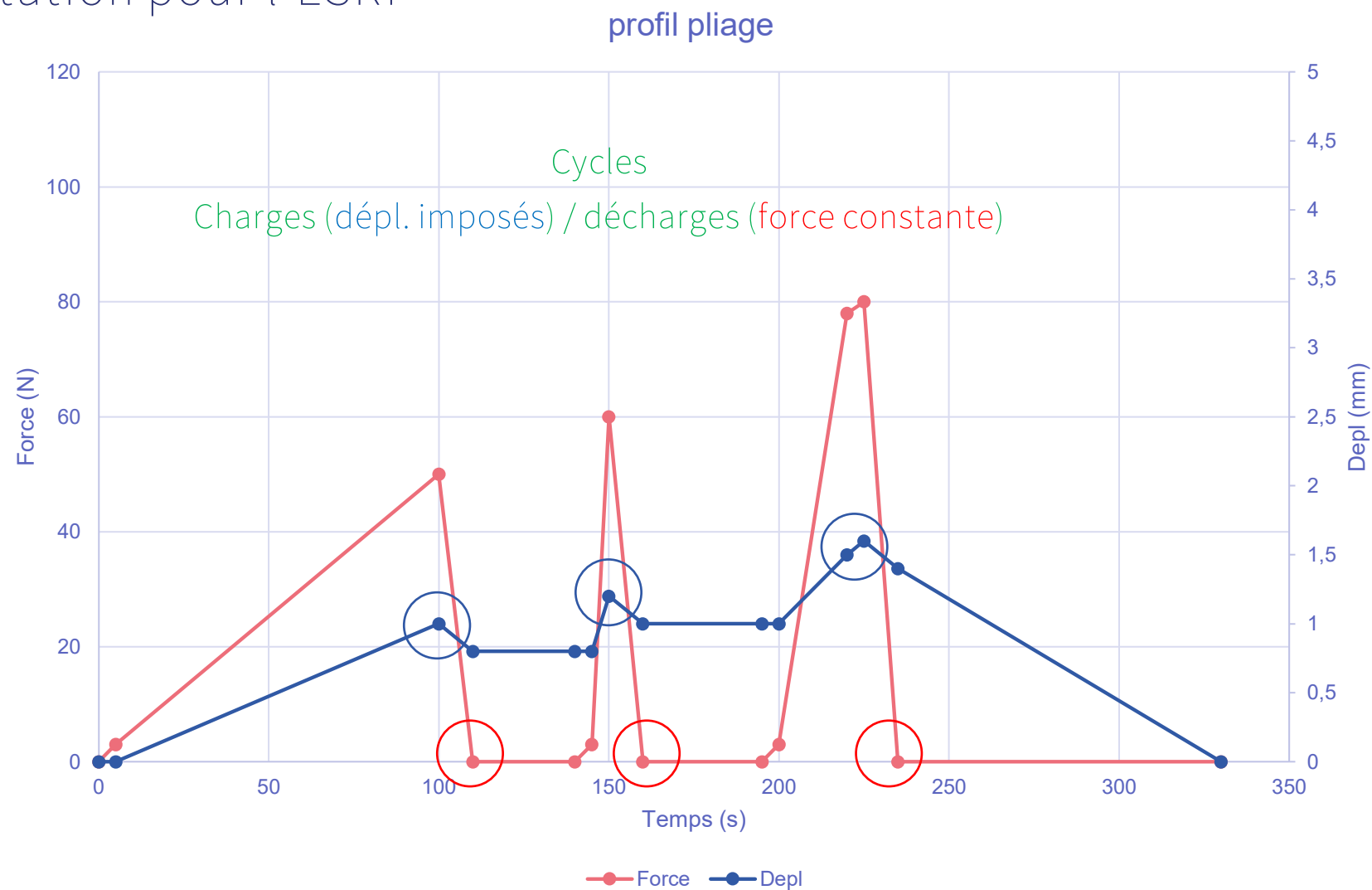
2) Adaptation pour l'ESRF





1) Le pliage de l'aluminium

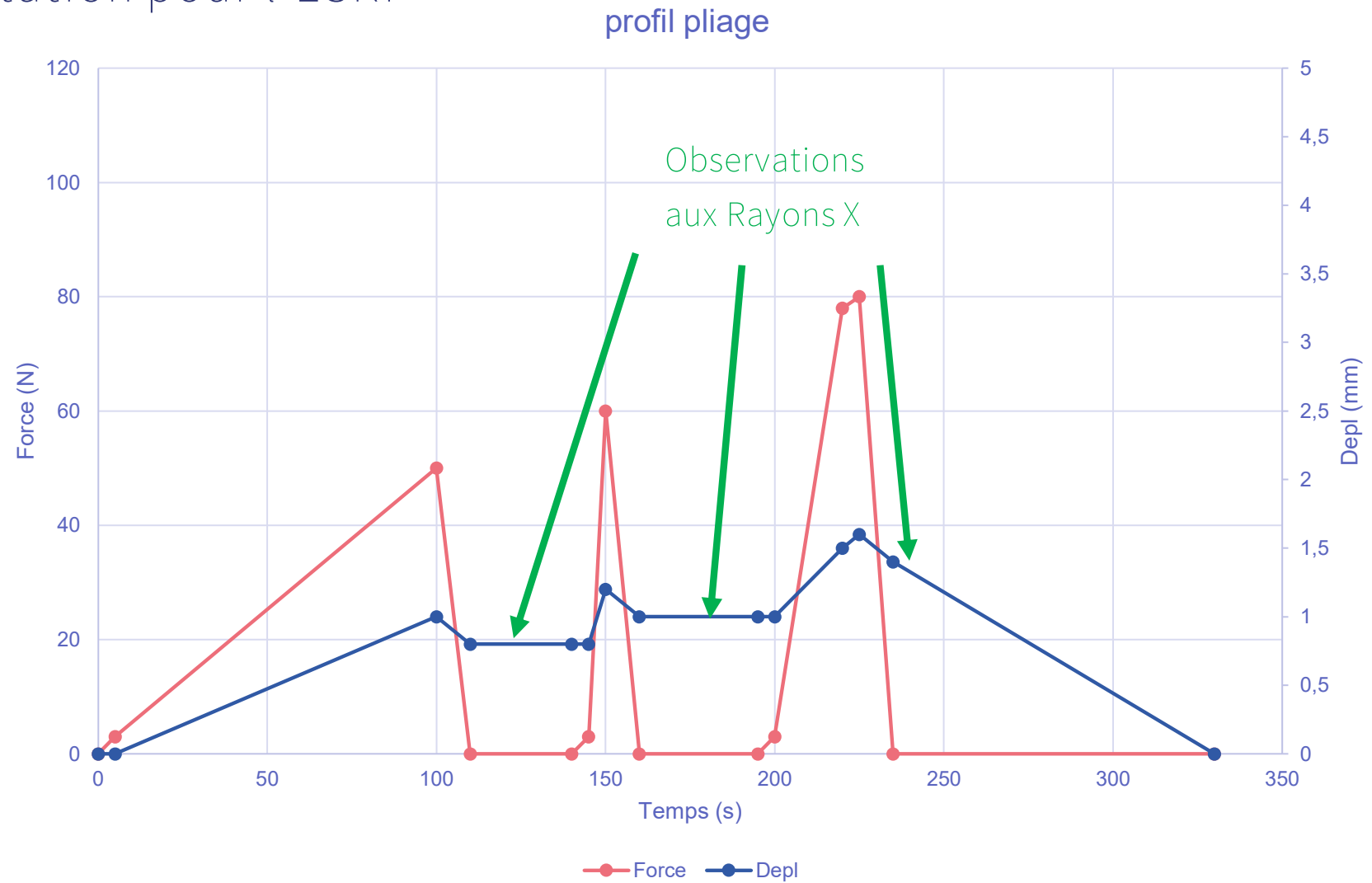
2) Adaptation pour l'ESRF





1) Le pliage de l'aluminium

2) Adaptation pour l'ESRF





1) Le pliage de l'aluminium

2) Adaptation pour l'ESRF





2) La solution Labview

1) IHM

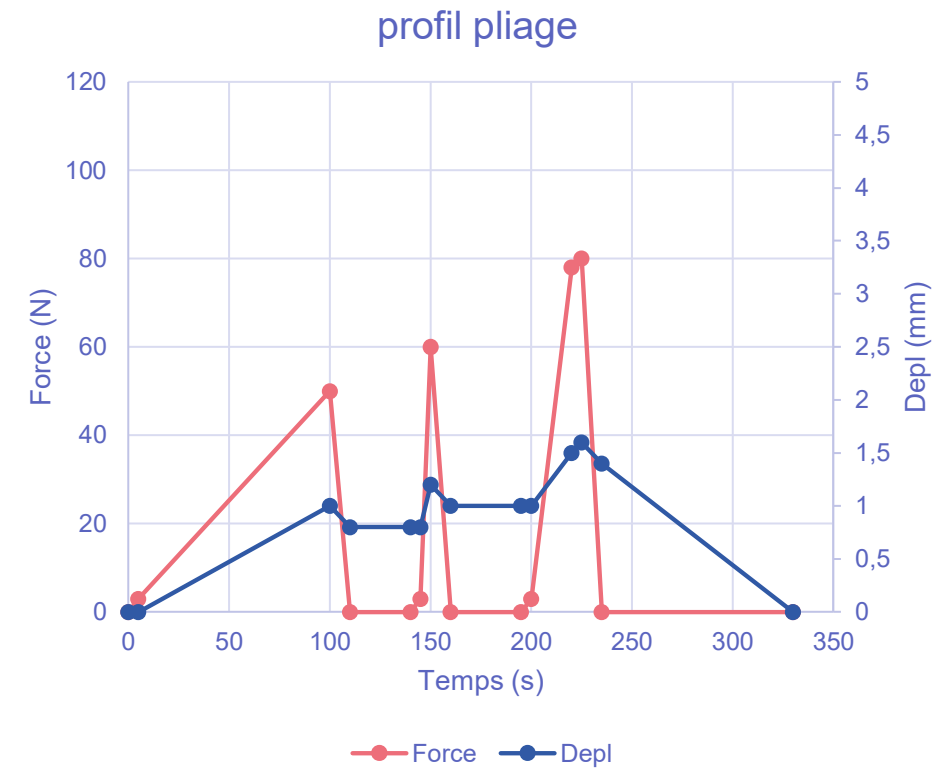
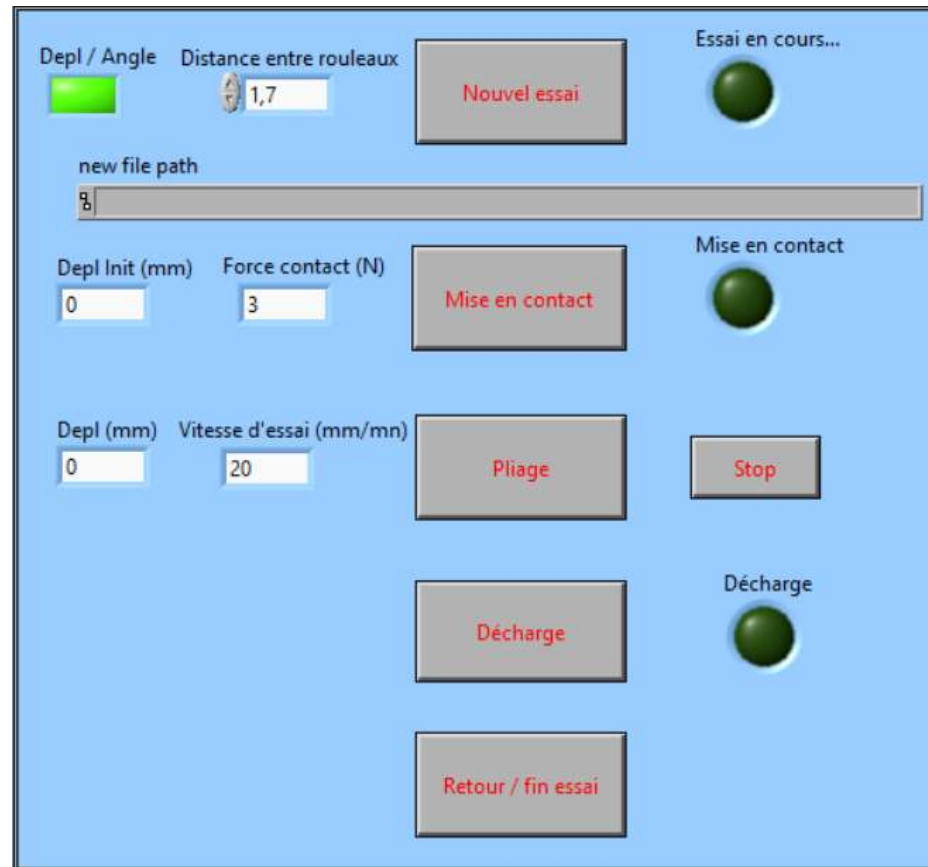
The image shows a Labview graphical user interface (GUI) for a robotic system. The interface is set against a light blue background and contains several controls and indicators:

- Date:** A text box at the top left displays "V11_27/05/2026".
- Port Status:** A small green circular indicator is labeled "Port com Ok".
- Identification:** A text box at the top right contains the text "en attente de connexion...".
- Stage name:** A text box below the date.
- POS A:** A text box in the middle left.
- InitialRef:** A text box in the middle center.
- New Ref:** A text box in the middle right.
- In Range?:** A red circular indicator in the center.
- Goto New ref:** A button located below the "New Ref" text box.
- Initial Position:** A text box at the bottom center.
- Current Position:** A text box at the bottom right.
- Prêt:** A large green circular indicator on the left side, with the word "Prêt" (Ready) written inside it.



2) La solution Labview

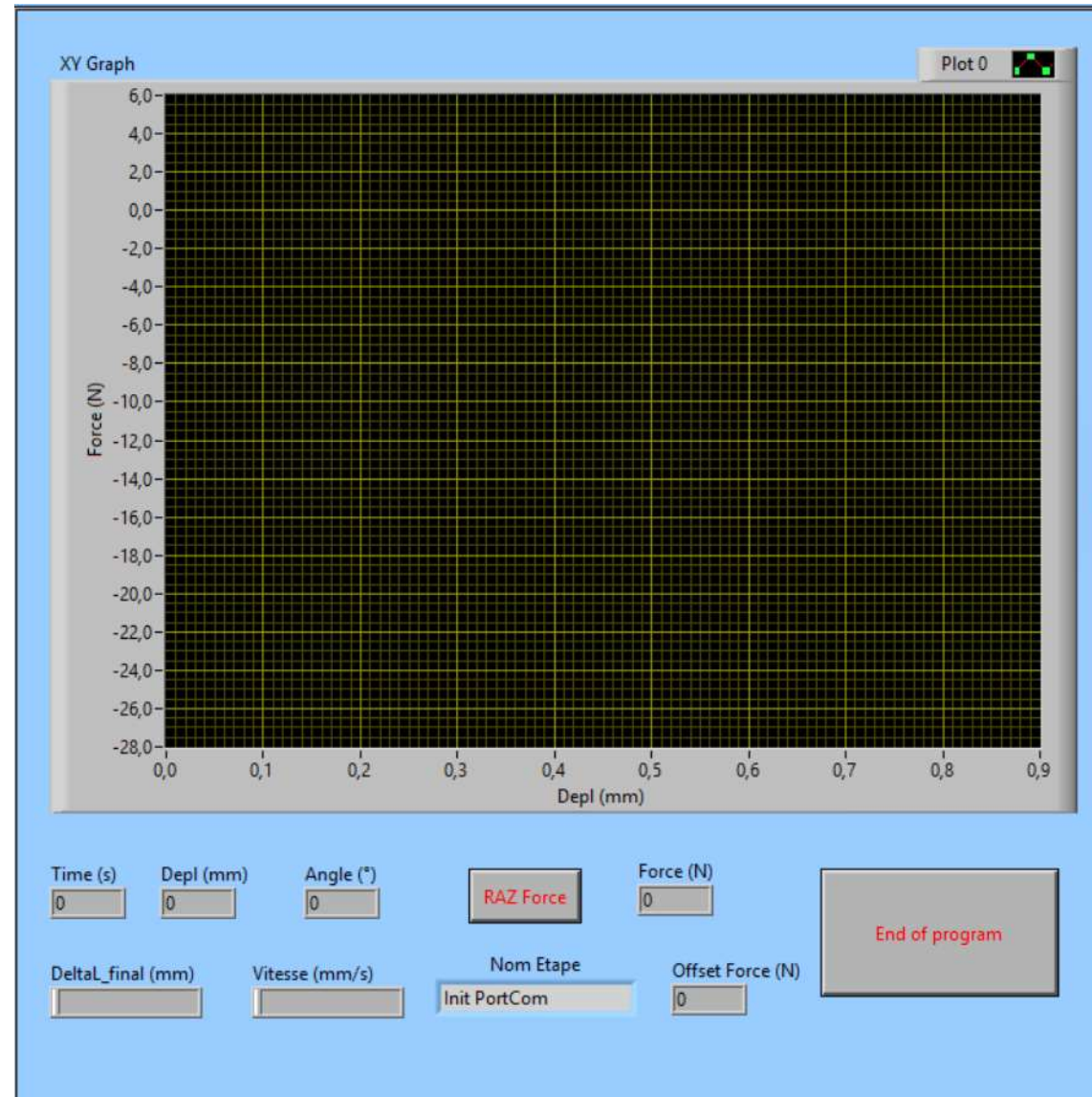
1) IHM





2) La solution Labview

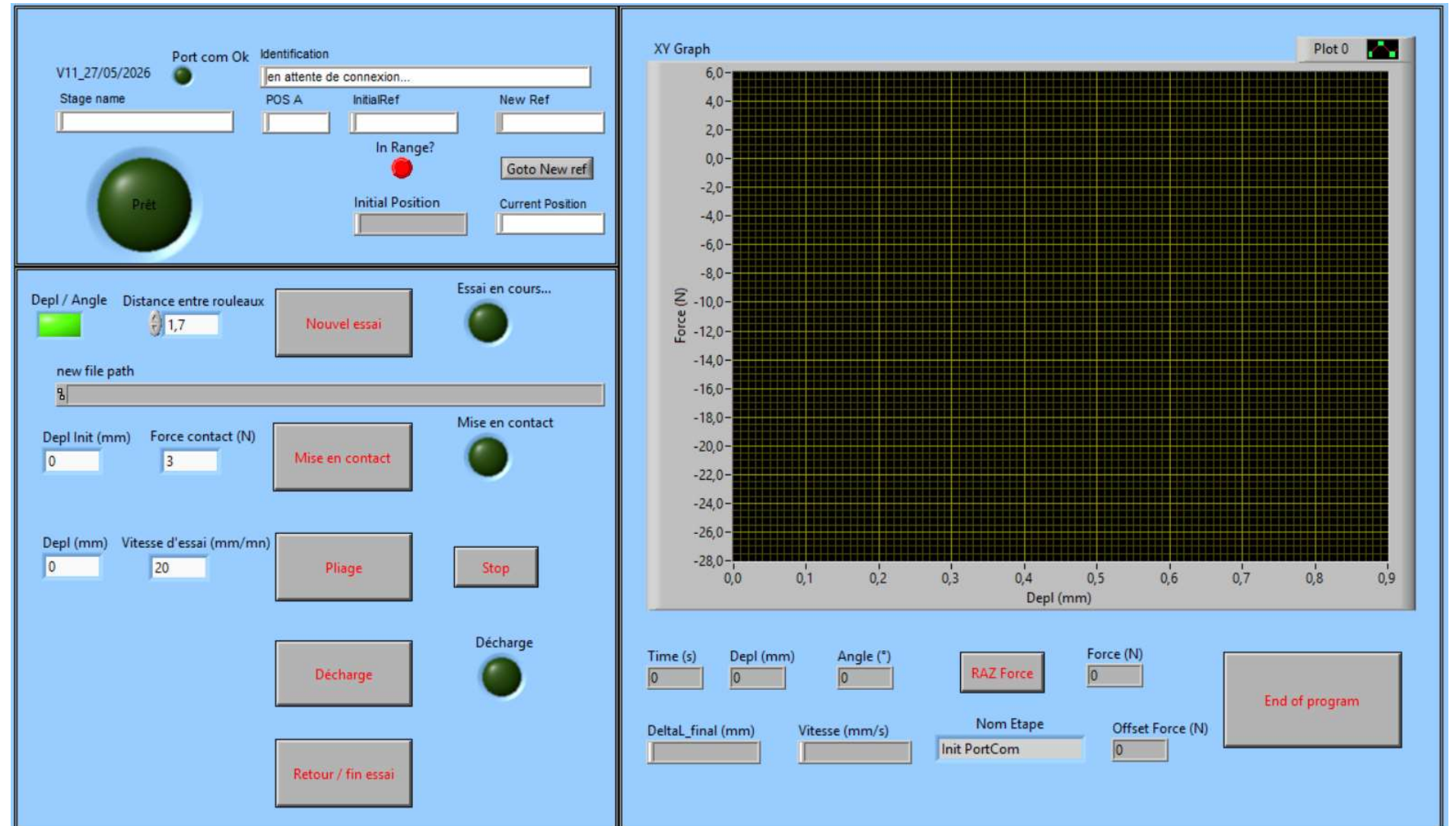
1) IHM





2) La solution Labview

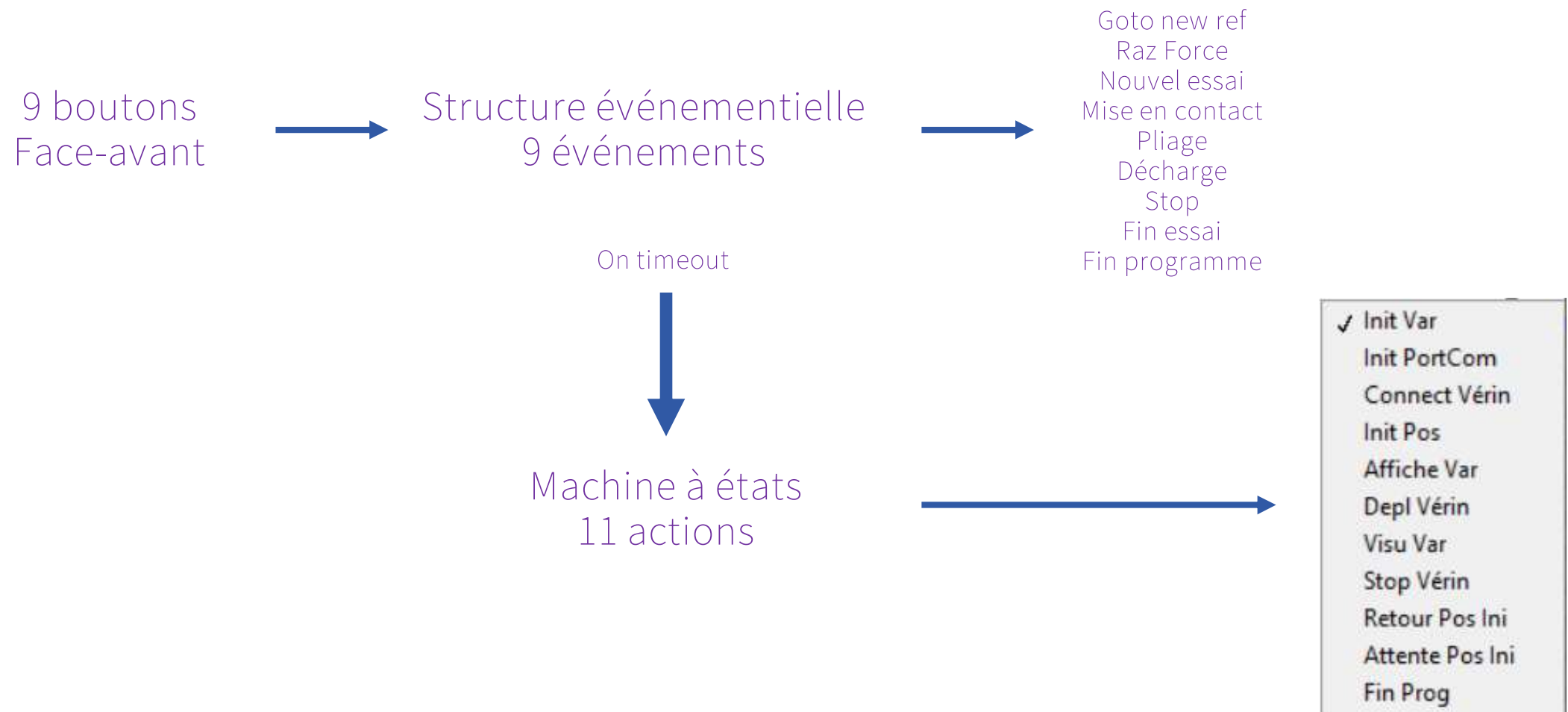
1) IHM





2) La solution Labview

2) Fonctionnement global





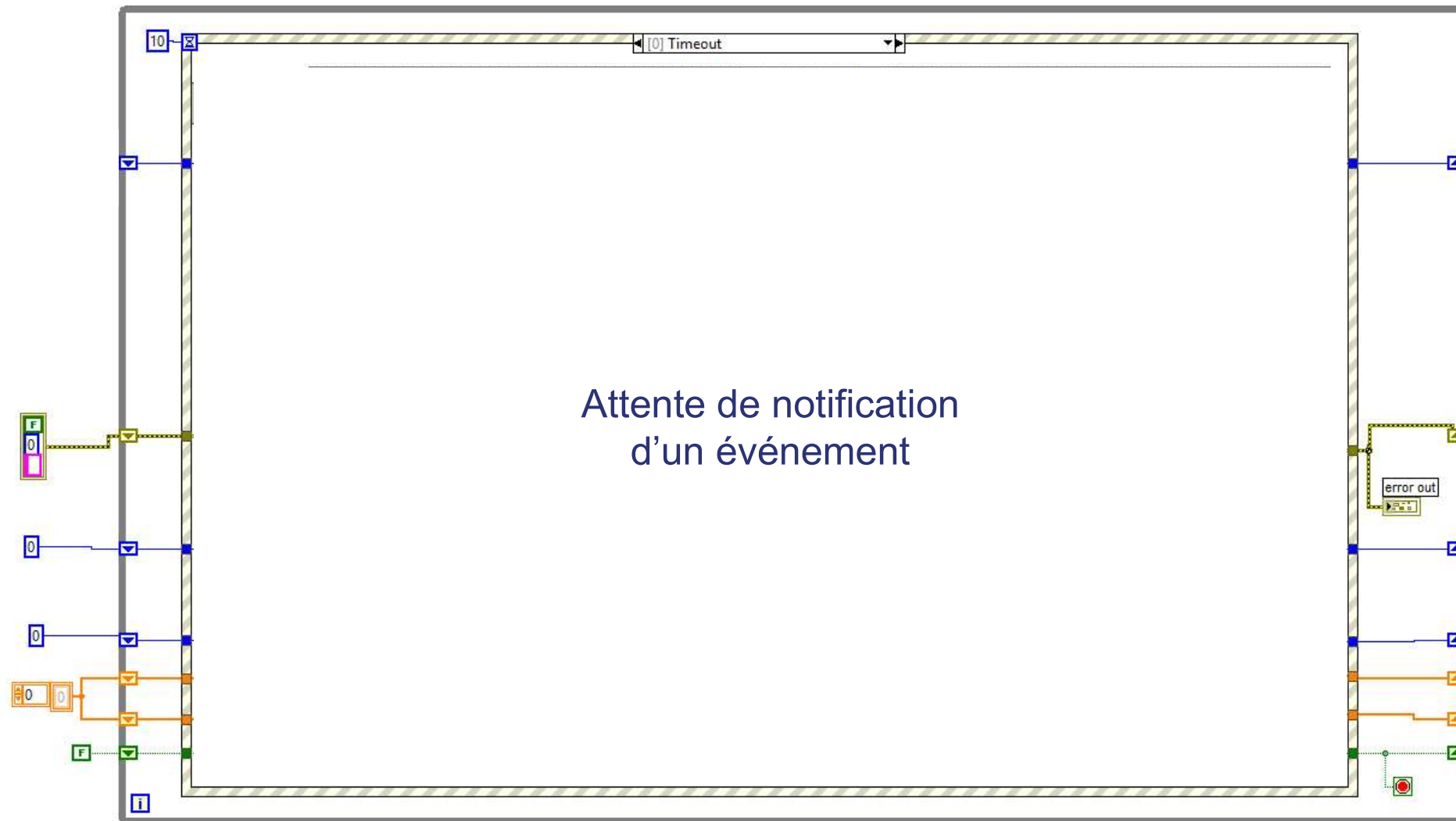
Evénements





2) La solution Labview

3) Structure événementielle

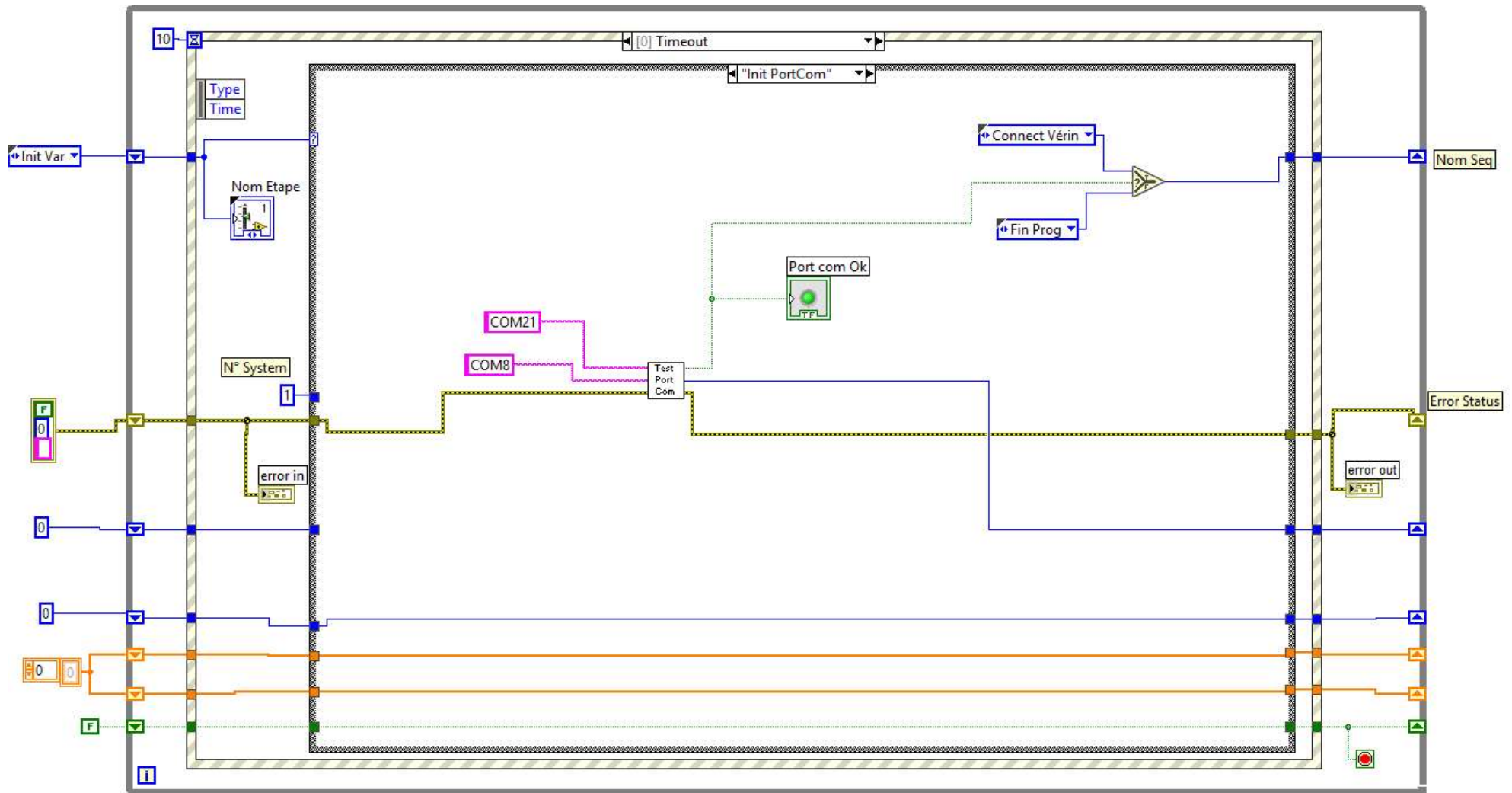




2) La solution Labview

4) Machine à états

Définition de type
→ énumération





2) La solution Labview

5) Liaisons USB

Capteur de force
+
conditionneur



Vérin
+
Carte de contrôle

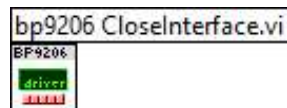
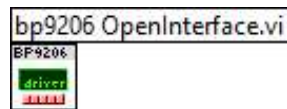




2) La solution Labview

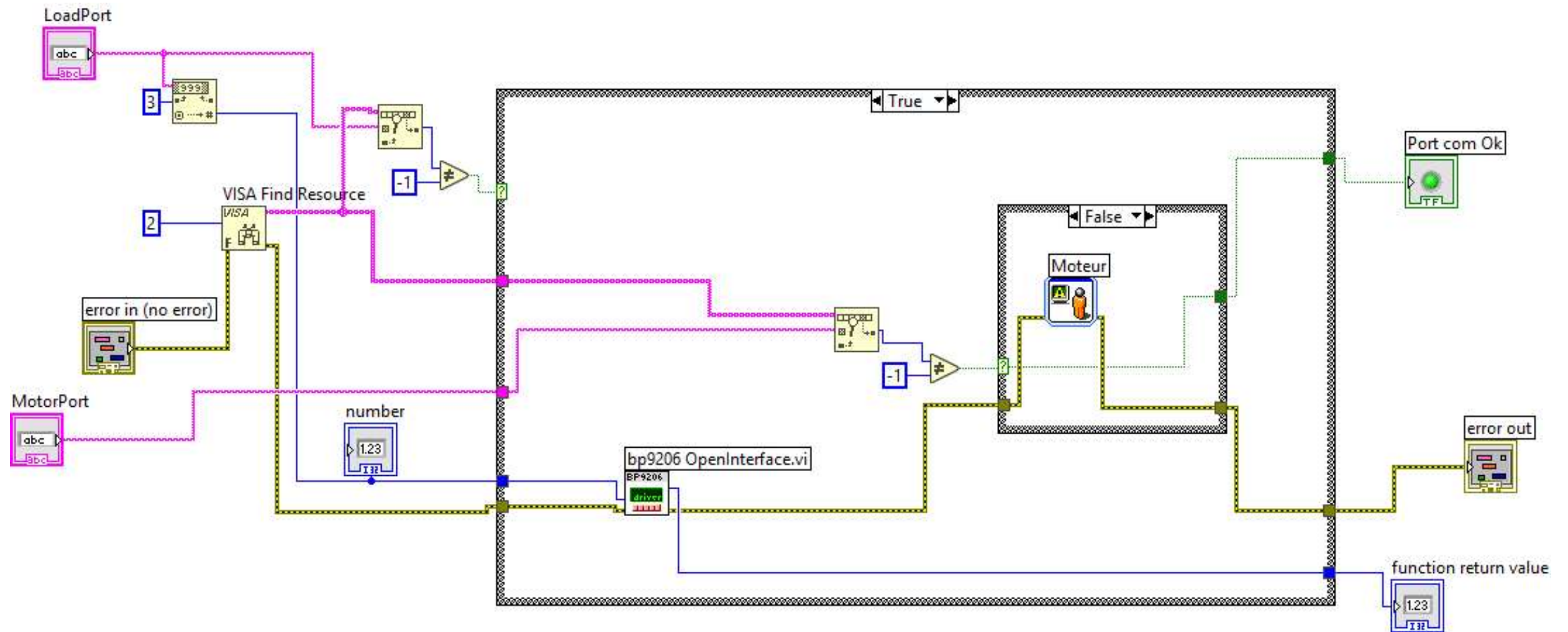
5) Liaisons USB

Utilisation de fonctions (vi) définies dans des librairies (.llb)





2) La solution Labview





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Nous vous remercions
pour votre écoute !

