SIMaP
Science et Ingénierie
des Matériaux et des Procédés

Oriaru versus Origami !

Journée AlpesVIEW 2026 | SIMaP | 15/06/2026

Ch. JOSSEROND

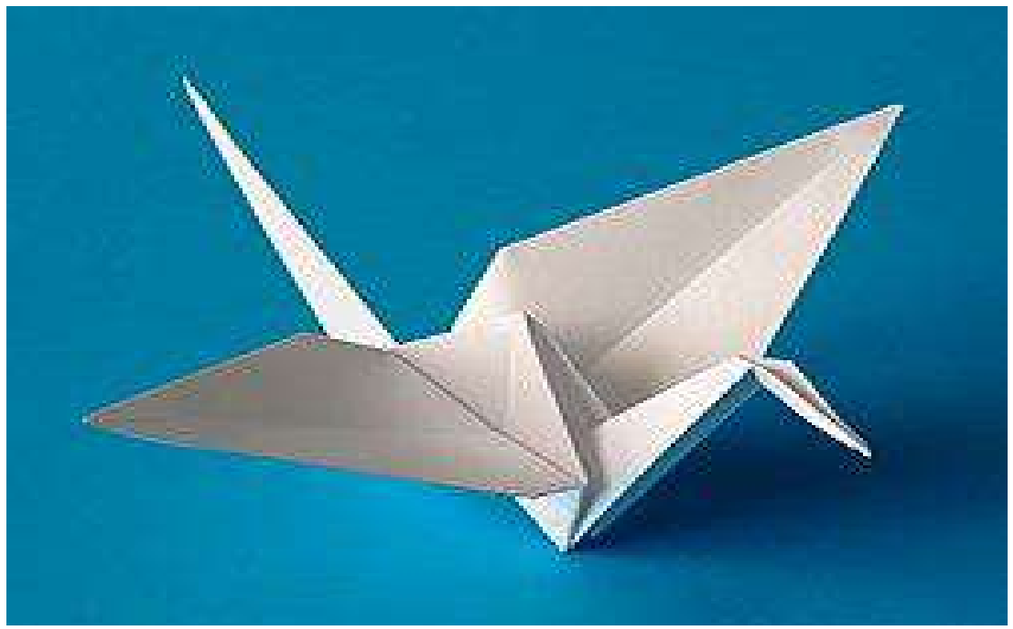
Ingénieur en développement d'expérimentation
CNRS / SIMaP

AlpesVIEW

LE RÉSEAU DES ÉLECTRONICIENS
RdE • NATIONAL

GRENOBLE INP UGA | cnrs | UGA Université Grenoble Alpes

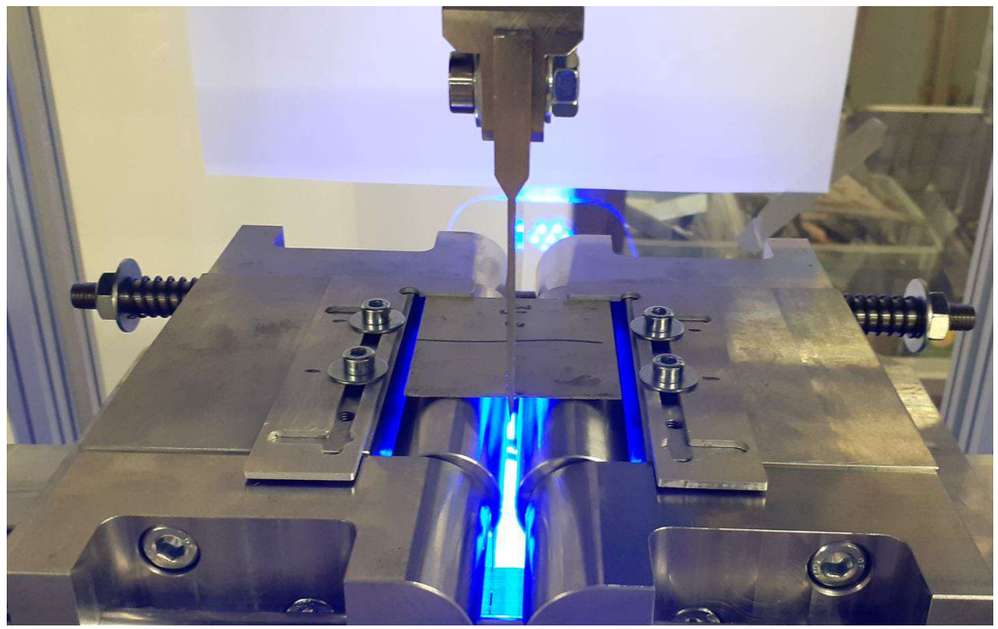
Origami



Plier : Oru → Ori

Papier : Kami → gami

Oriaru



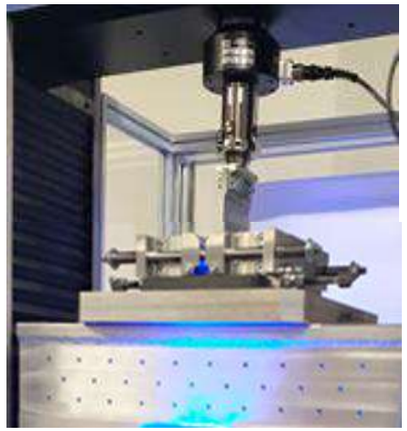
Plier : Oru → Ori

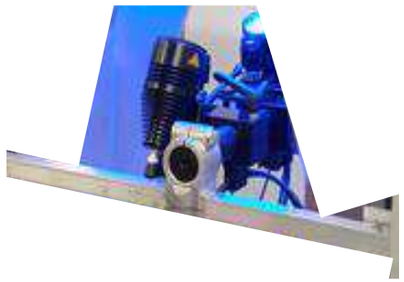
Aluminium : Aruminiumu → aru

Sommaire

1) Le pliage de l’aluminium

1) Manip à SIMap





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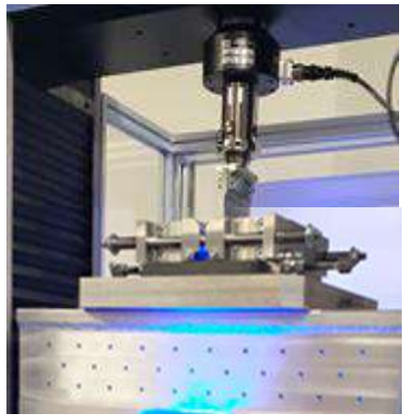

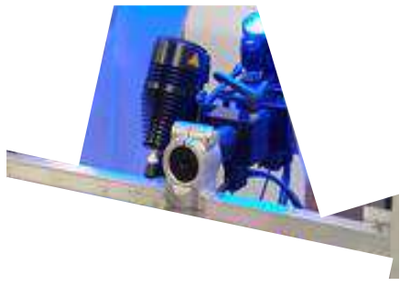

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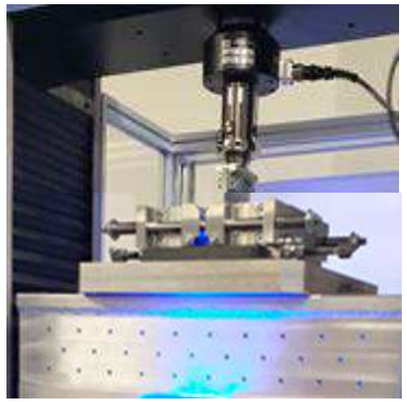

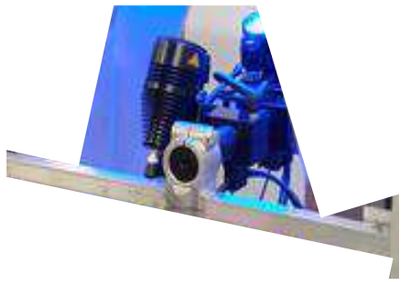

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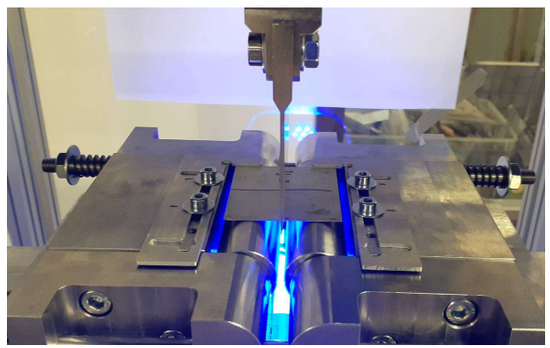
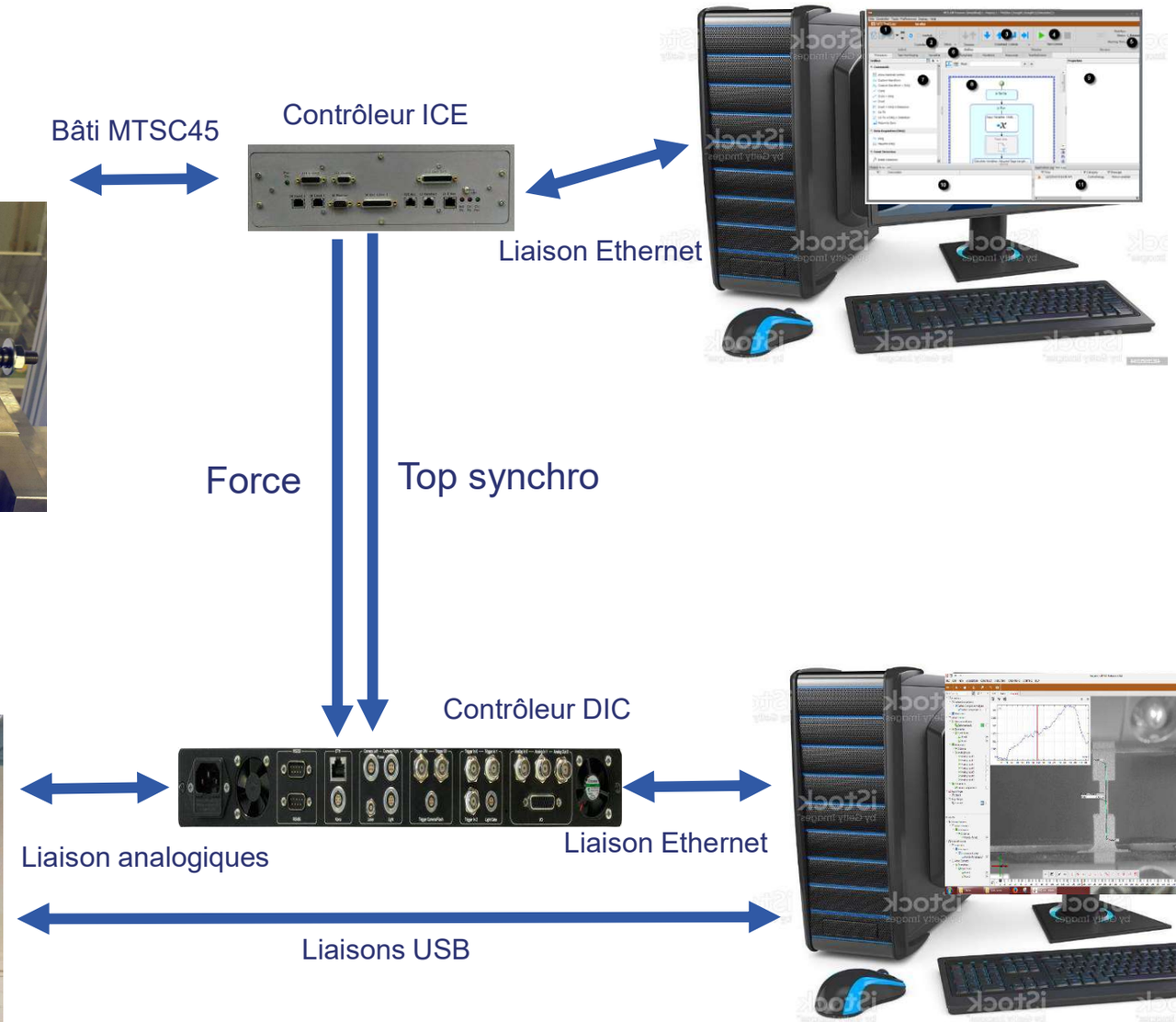
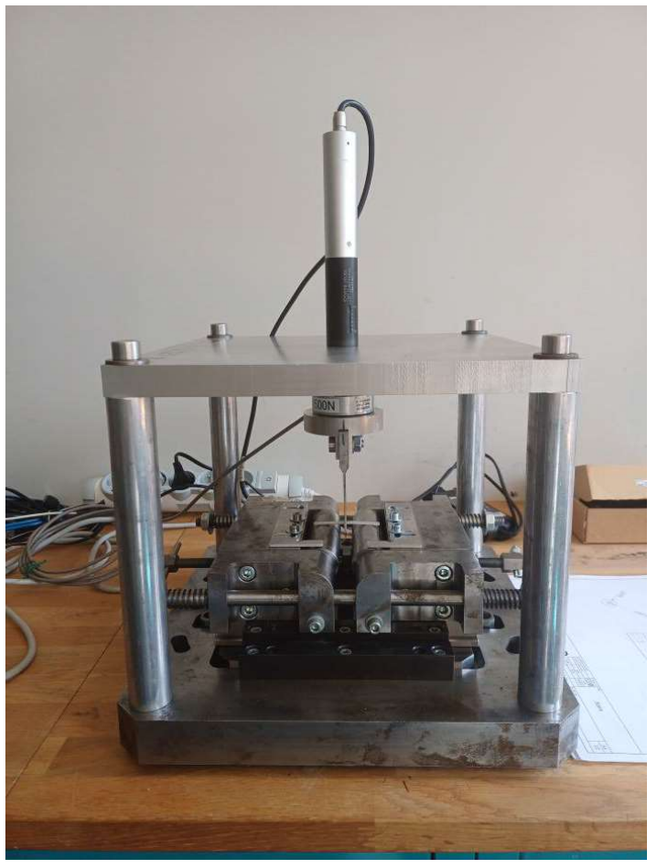
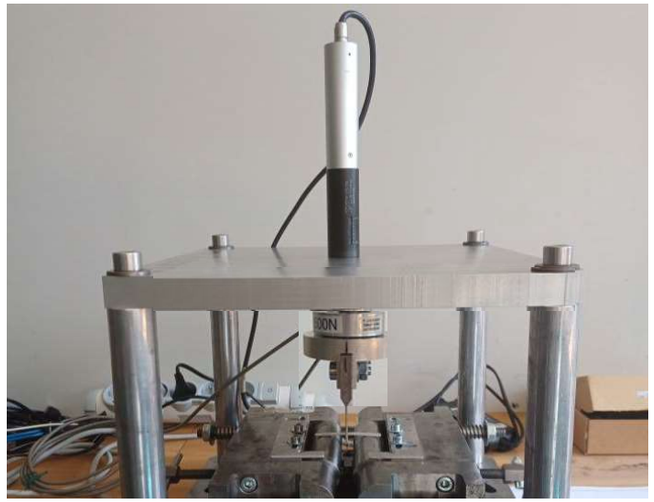




1) Le pliage de l’aluminium

2) Adaptation pour l’ESRF





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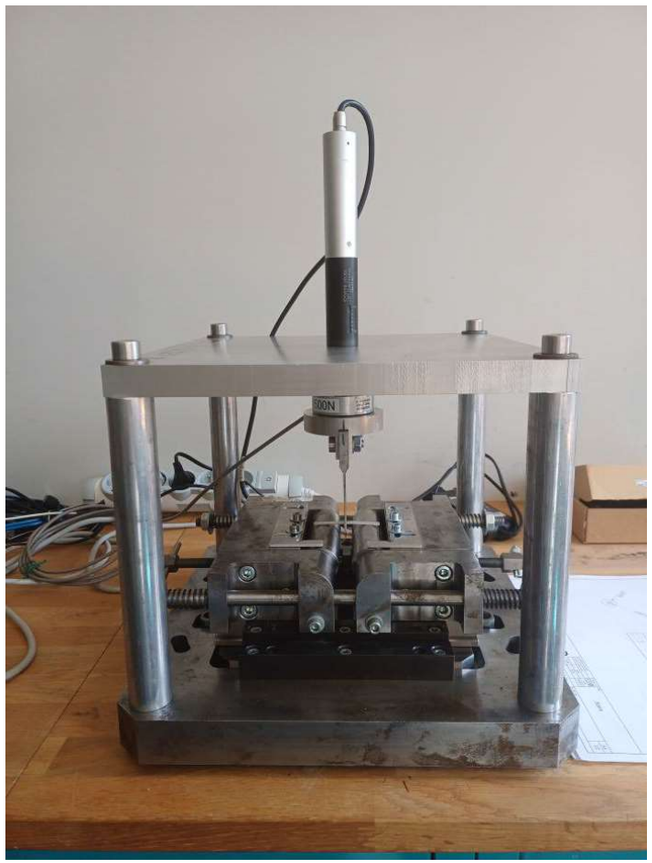

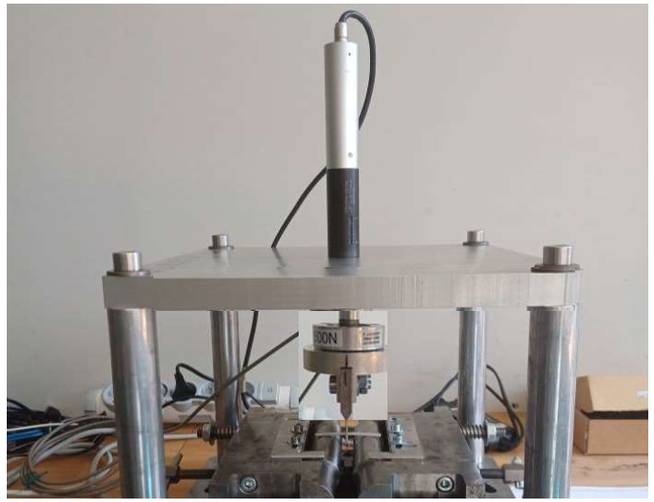

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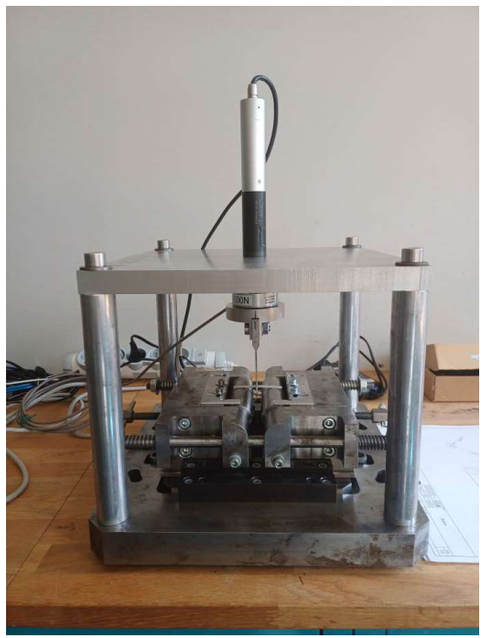
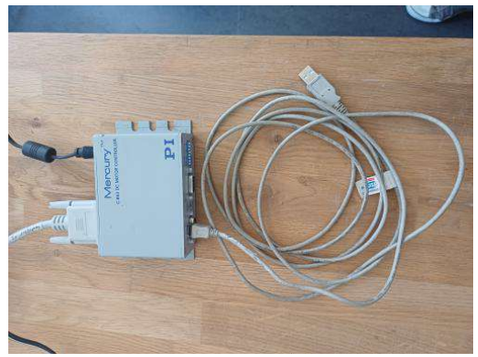




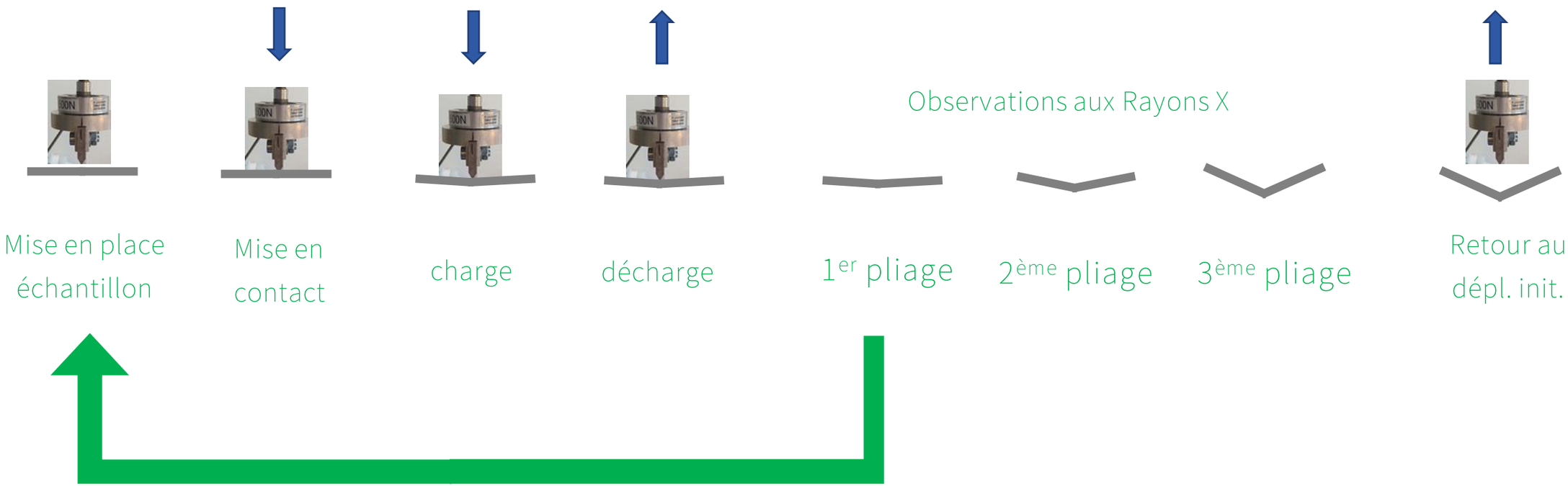
PI M235 20G (20mm – 120N)

Burster 9206 + capteur 500N

Liaisons USB

1) Le pliage de l'aluminium

2) Adaptation pour l'ESRF



1) Le pliage de l'aluminium

2) Adaptation pour l'ESRF

Mise en place échantillon

1) Le pliage de l'aluminium

2) Adaptation pour l'ESRF

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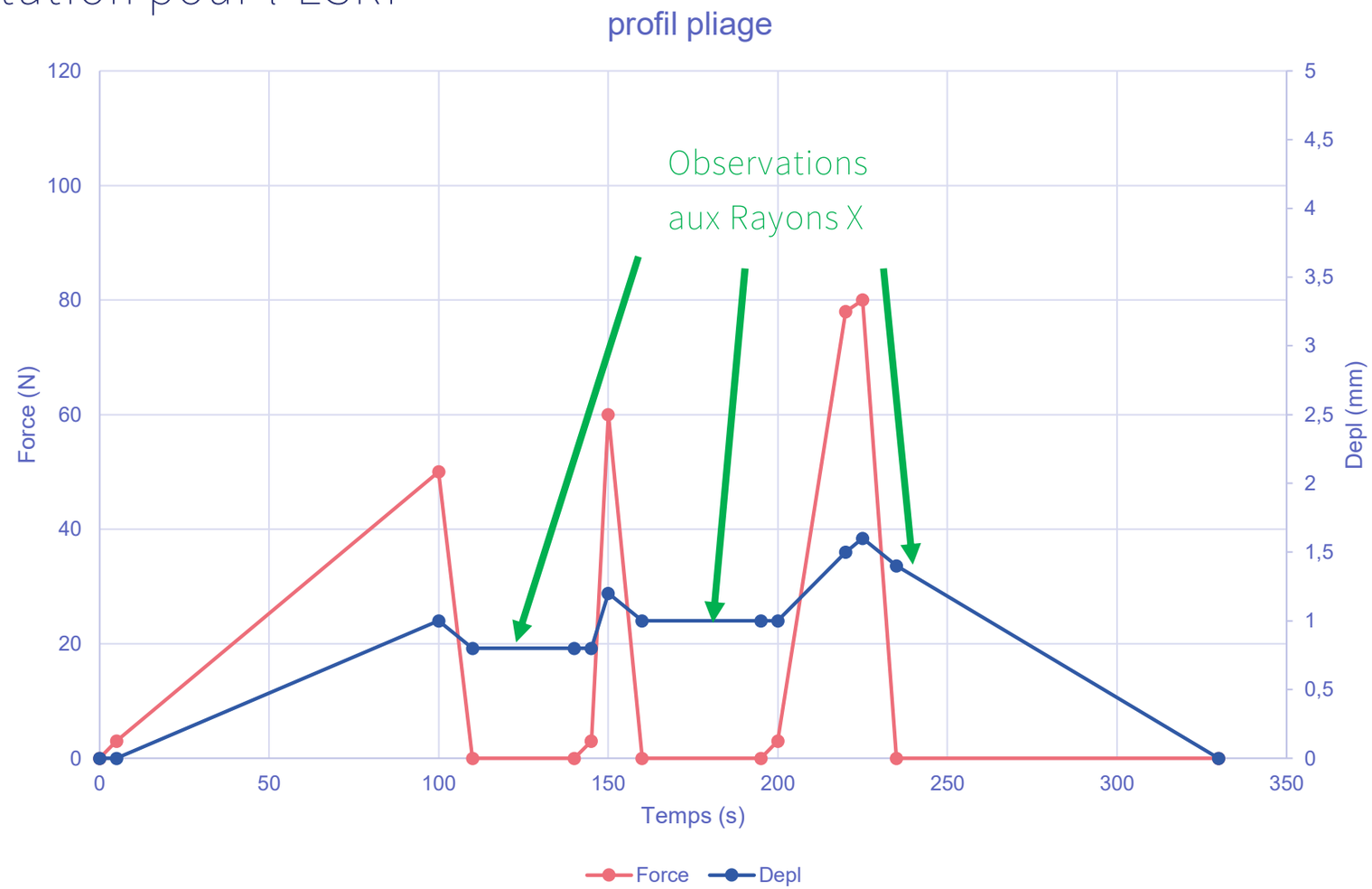

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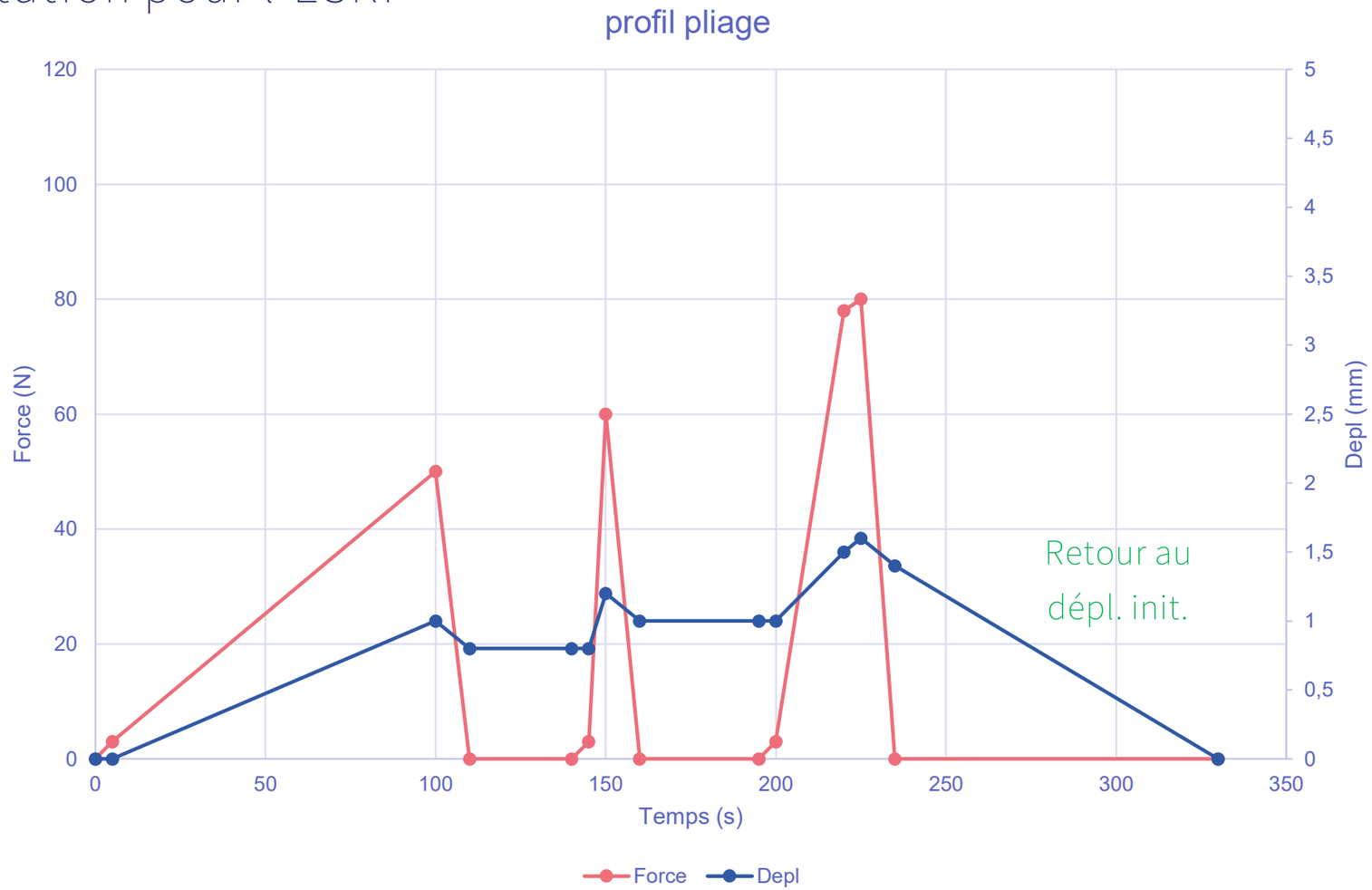
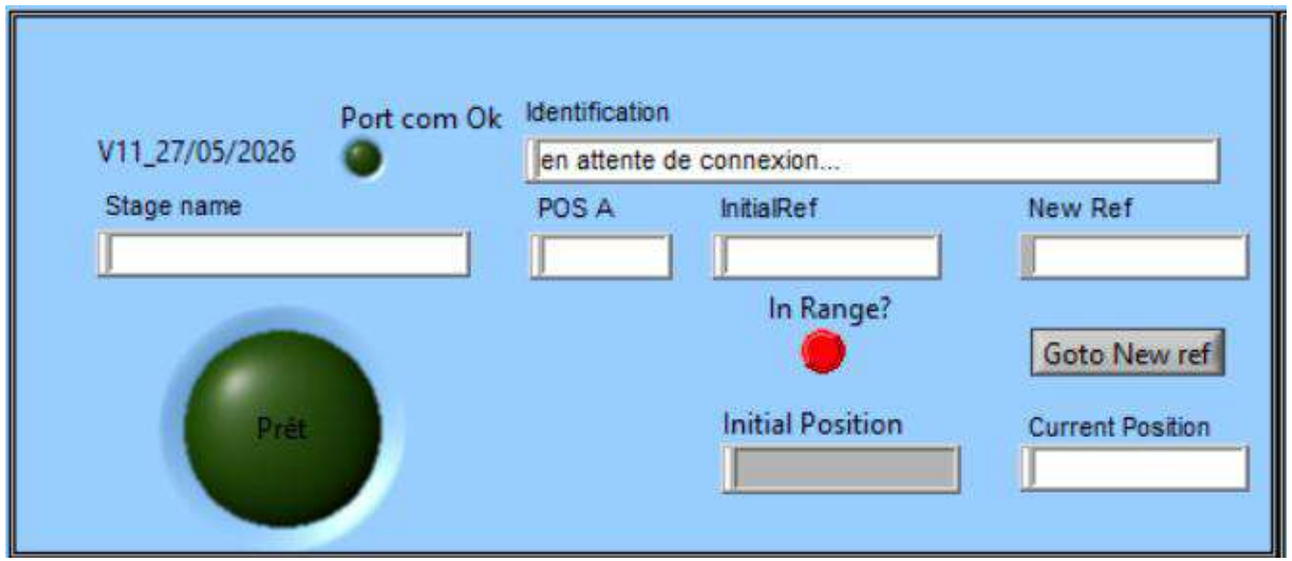


2) La solution Labview

1) IHM



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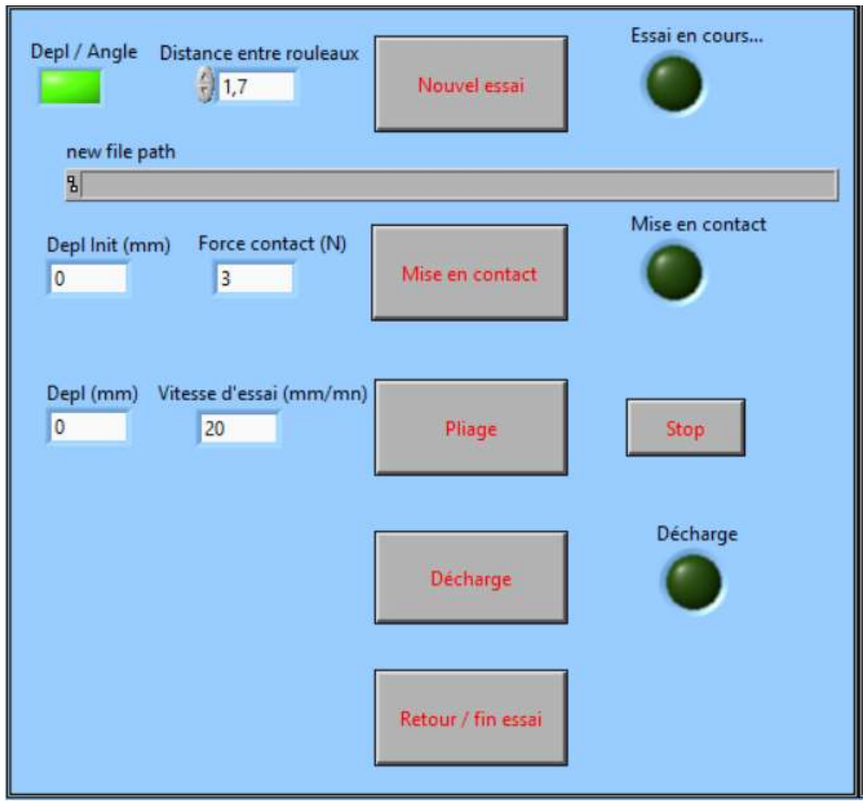

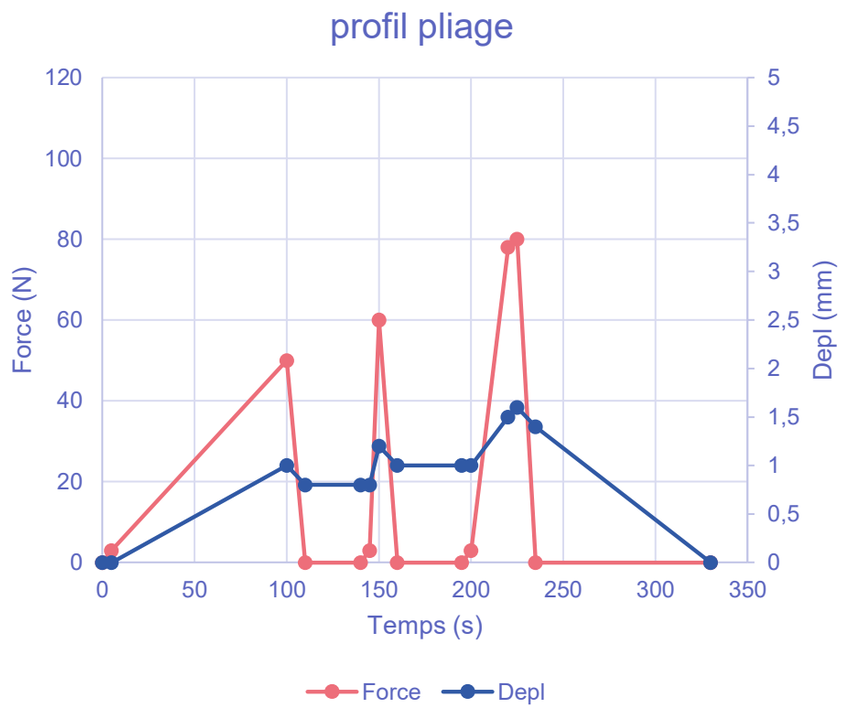

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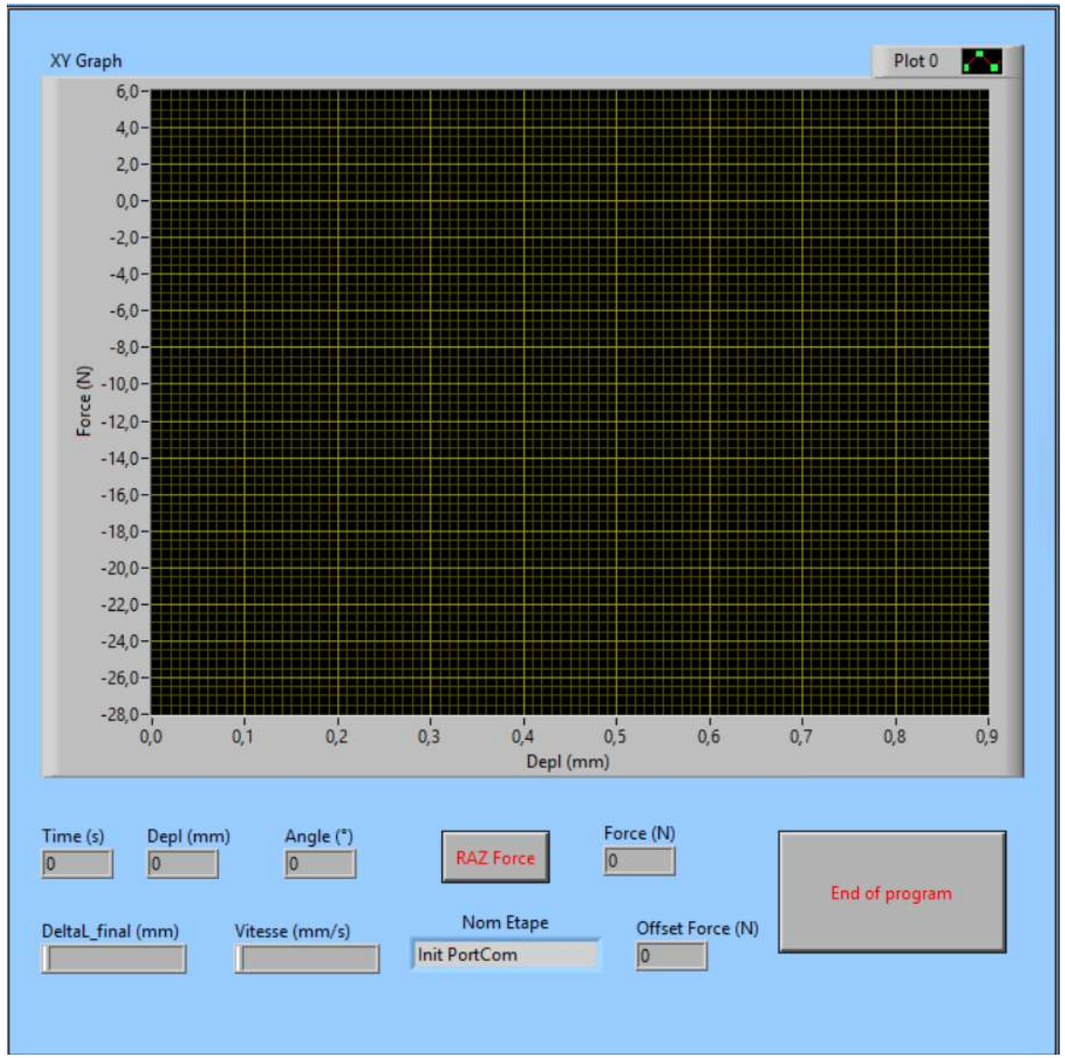

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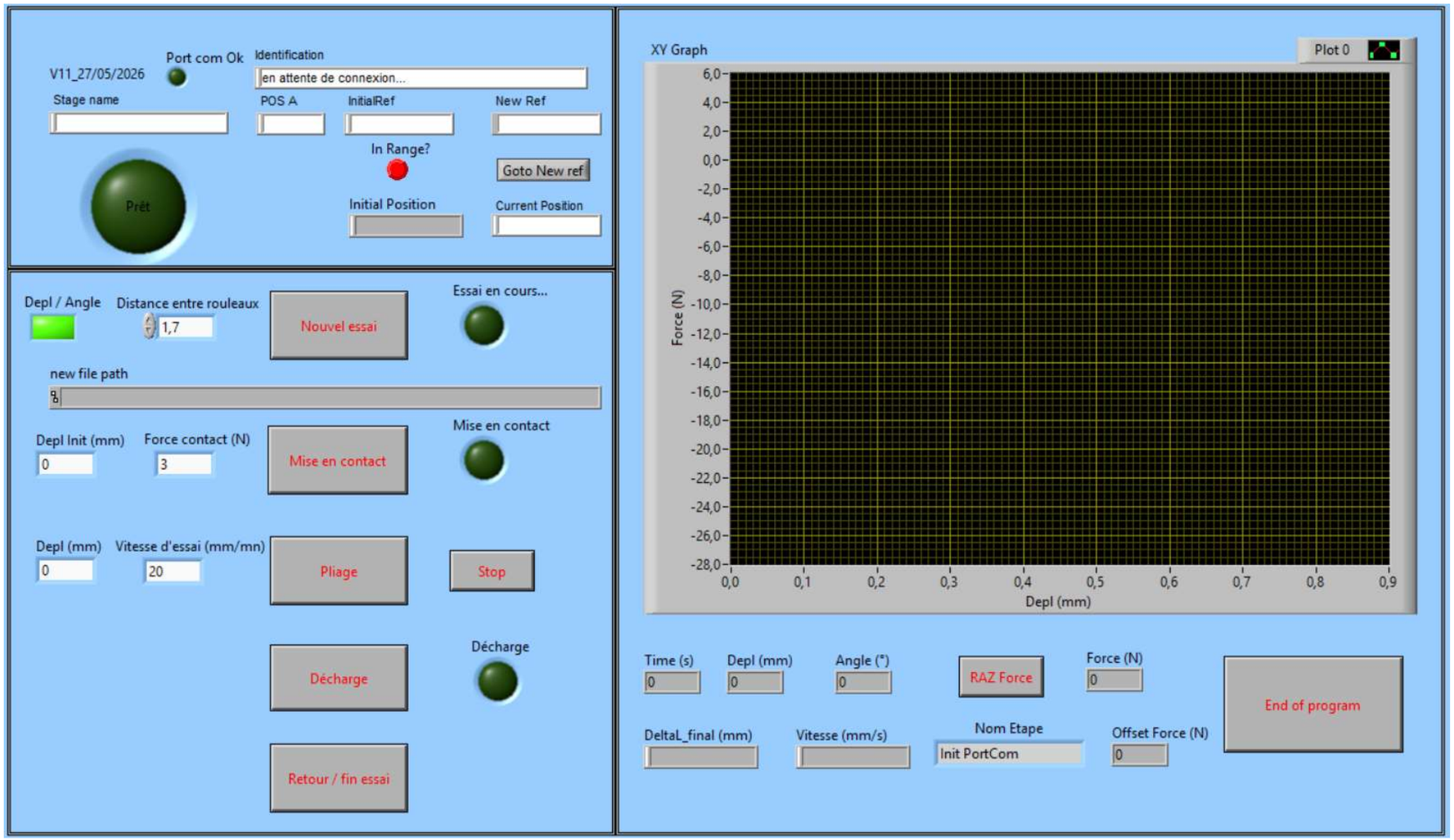


2) La solution Labview

2) Fonctionnement global

9 boutons
Face-avant

→

Structure événementielle
9 événements

→

Goto new ref
Raz Force
Nouvel essai
Mise en contact
Pliage
Décharge
Stop
Fin essai
Fin programme

On timeout

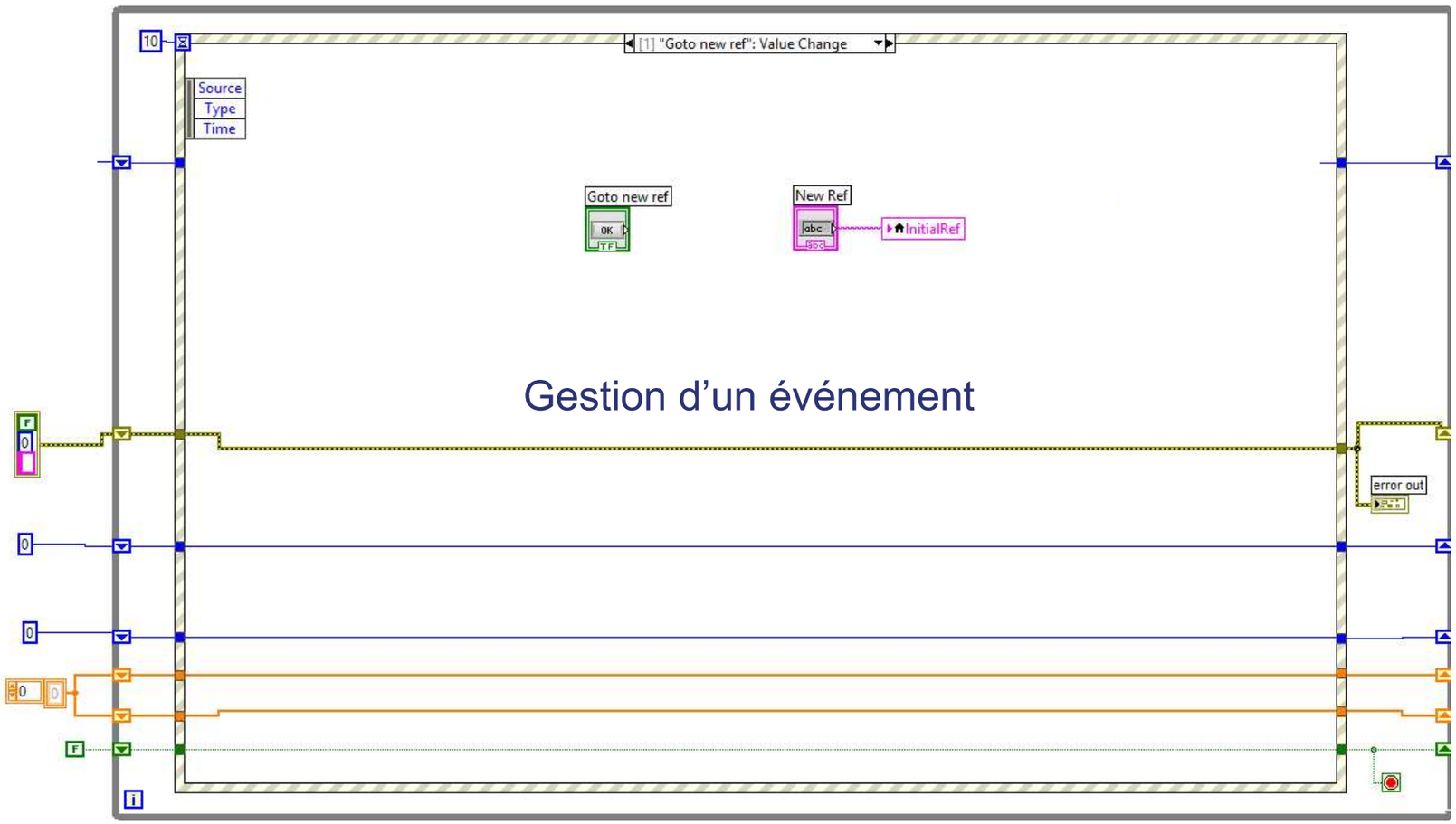
↓

Machine à états
11 actions

→

2) La solution Labview

3) Structure événementielle

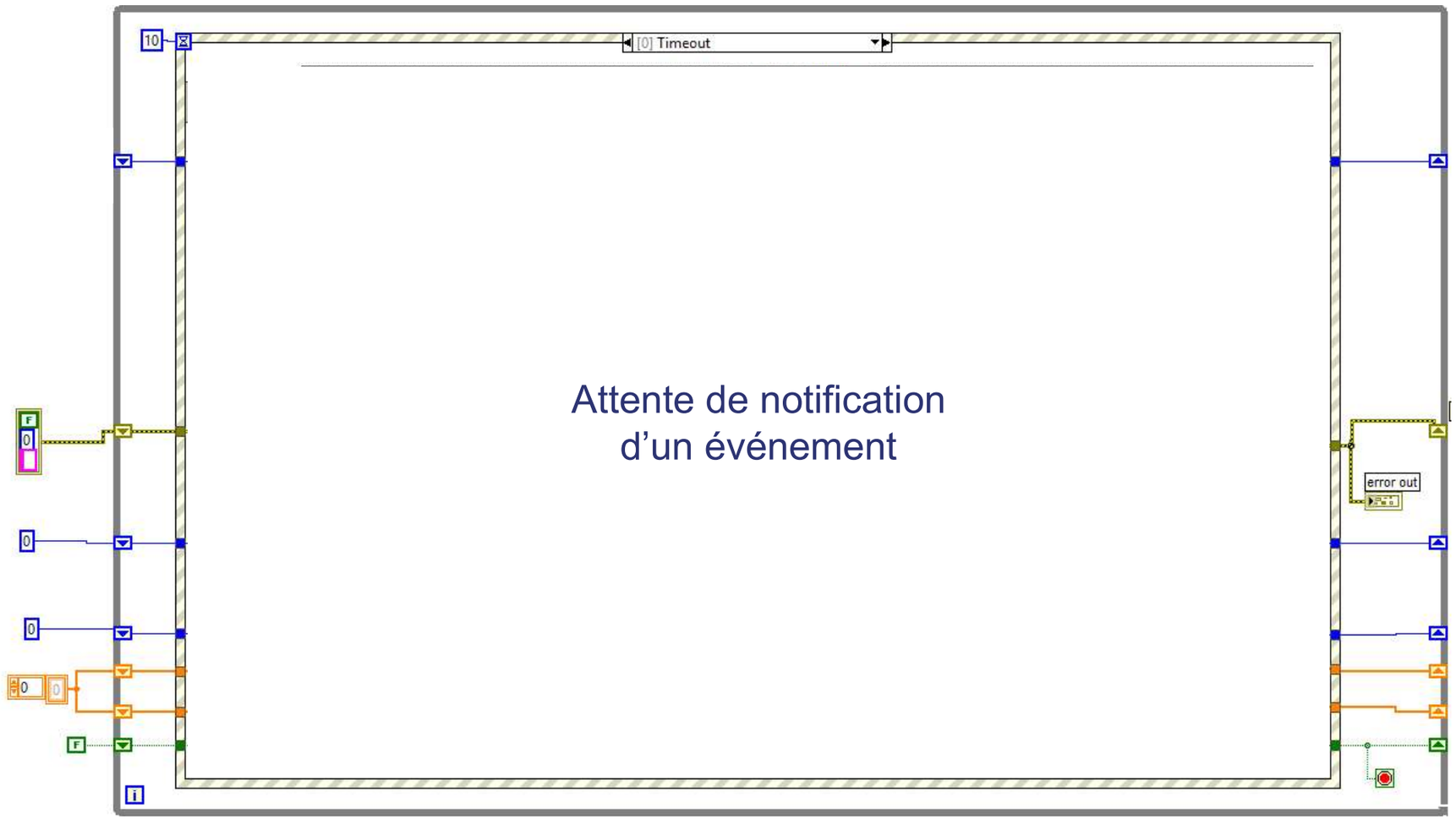


Evénements

Goto new ref
Raz Force
Nouvel essai
Mise en contact
Pliage
Décharge
Stop
Fin essai
Fin programme

2) La solution Labview

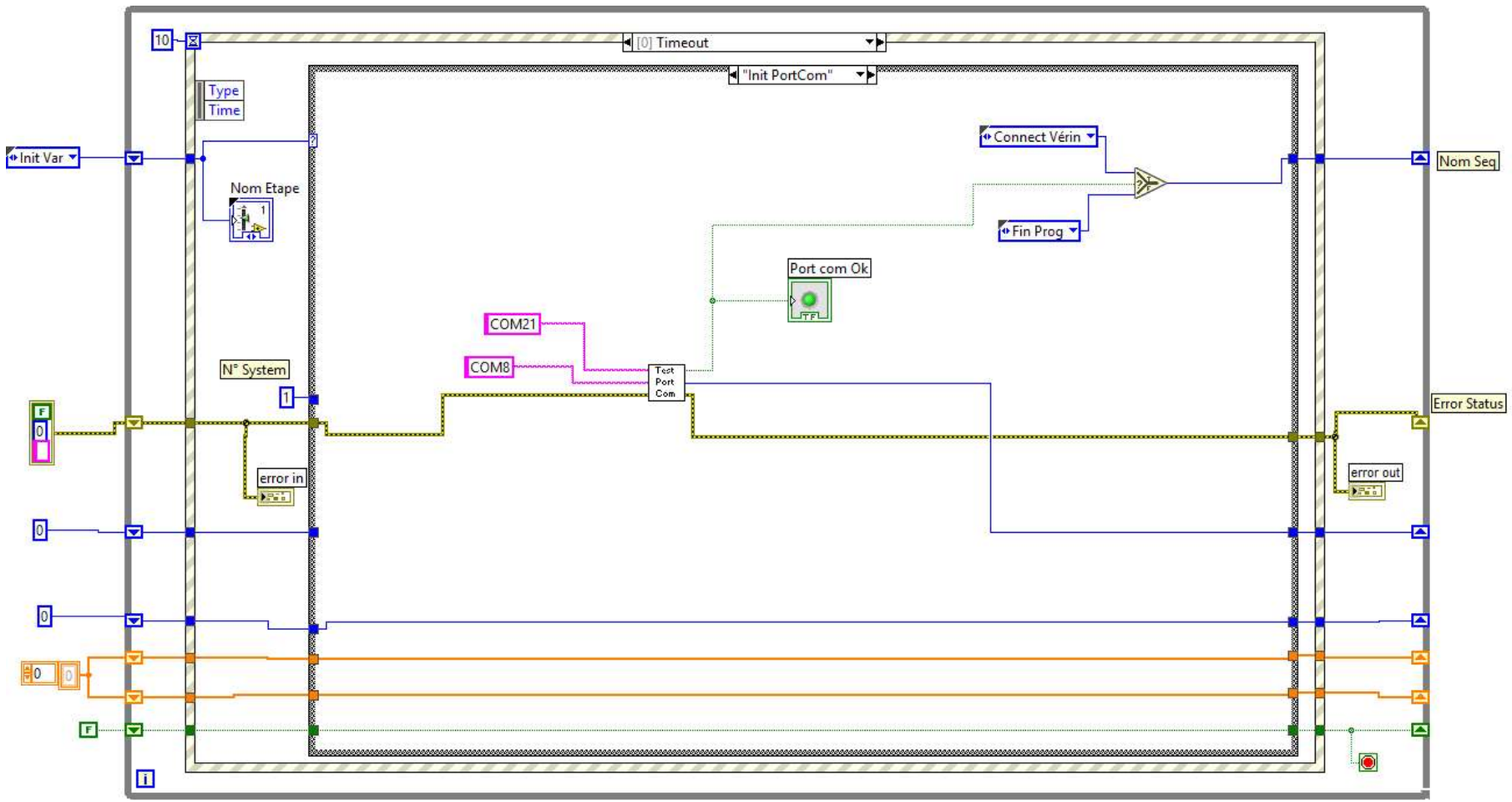
3) Structure événementielle



2) La solution Labview

4) Machine à états

Définition de type
→ énumération



2) La solution Labview

5) Liaisons USB

Capteur de force

+

conditionneur

Vérin

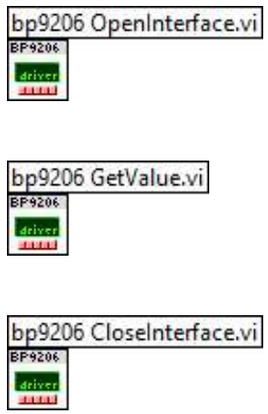
+

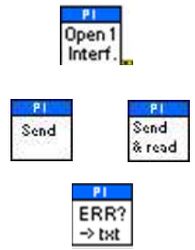
Carte de contrôle

2) La solution Labview

5) Liaisons USB

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





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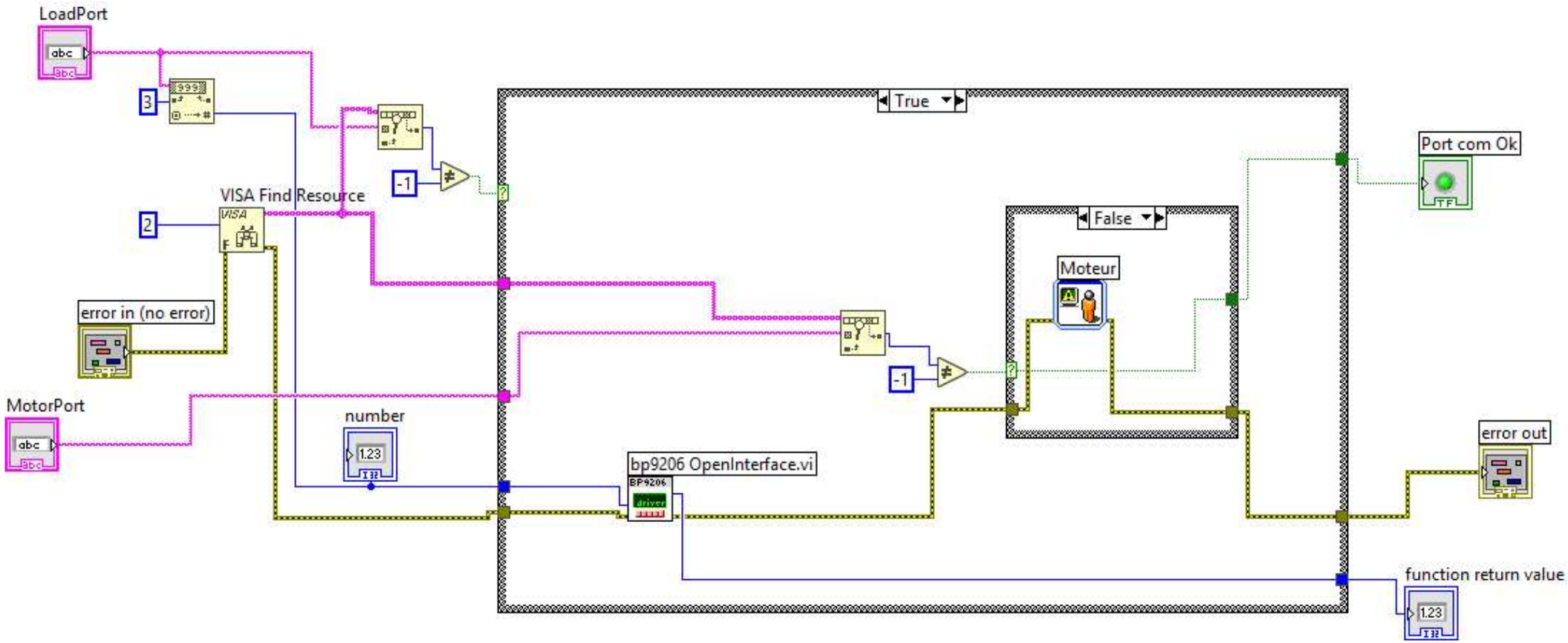

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Nous vous remercions
pour votre écoute !