NOTES for Nancy people

* COPY ALL .LOCAL files to git robot-config and commit.
* Will need to update firmware for board 10.0.1.10 left leg when new skin comes
* Open issue: to be able to type joint position in yarpmotorgui
* Provide document on how to calibrate IMU: with robot on pole in home position (i.e. all 0)
  - → matlab2015b
  - → /codyco-superbuild/main/WBIToolboxControllers/utilities
    launch calibrateIMU.mdl
    run
    look at the IMU scope → [should be ~0 ? yellow / ~0 ? blue / ~9.8 red
  - → yarpmotorgui ⇒ move head joints to bring signals to 0
    keep note of the joint offsets ⊛ joint positions
  - →... software/yarp/icubcontrib/robots/iCubNancy01/calibrators
    open head-calib.xml joints in
    add the offsets to the corresponding "calibrationDelta"
    save. close.
  - → Restart the robot. Check again with calibrateIMU.mdl
    Repeat previous steps as needed. (the IMU values should be closer to 0 but they may not yet be perfect)
  - ⇒ The head is CAN. not ETH. The above file will not be loaded properly. workaround: put the head in initial position required for the IMU, obtained at ⊛ as a workaround for now.

[how to run Yoga demo]
... software/yarp/icubcontrib/robots/iCubNancy01/calibrators/ (same file)
"startupPosition" changed to ⊛ in head-calib.xml

1. * HOME POSITION YOGA++: head home position also needs to be adjusted
   yarpmotorgui --from homePoseBalancing.ini
   ↳ menu bar global joints commands → custom positions
   → move all parts to YogaPP

workaround homePoseBalancing.ini is in .../codyco-superbuild/build/install/share/codyco/robots/iCubNancy01
↳ it has been modified according to our measurements
⇒ $robot/head-position for joint 0 was changed! for homePoseYogaPP
original value: 0
modified value: -1.5

2. adjust F/T sensors measurements (adjust offsets) with
   yarp rpc /wholeBodyDynamics/rpc
   >> calib all 300 (300 is a time delay in ms)

3. makumba to release eventual stress in the legs:
   >> twoFeetStandingAndCalib.sh
   (Lightly hold the robot by the arms while running the script; it will move a bit)