Main Model Instructions

# Run Model

1. USE MATLAB 2019B OR HIGHER!
2. Pull the Git master branch on your PC.
3. Copy the the folder “Model\_Data” from the CPS teams folder and paste it under “Matlab>Simulink\_Model>…”.
4. Set your current directory to the folder “Simulink\_Model”. All the files needed for the simulation are in this folder. The script will throw an error if you don’t.
5. Run the script “set\_workspace\_parameters.m” to generate some data and load parameters to your workspace. It should take about 30 seconds…
6. Open the model “main\_model.slx” and run it.

# Work in the model

## Work in the main model

**IMPORTANT:**

You cannot merge 2 main\_model.slx files together with git. Therefore only work in the main\_model.slx if you need. If you do:

* Notify the others so they do not work in it.
* Push it to the main branch as soon as it is done.
* Notify the others so they can use the new model.

## Work in a Referenced Subsystem.

**IMPORTANT:**

Do not make blocks u want to reuse in a regular model (.slx model file). You cannot reuse a regular model. You need to make a **reference subsystem** for that. Read the info on this webpage on how to make a reference subsystem: <https://nl.mathworks.com/help/simulink/ug/referenced-subsystem-1.html>. You need Matlab v2019b or higher to create/load these reference subsystems.

You cannot run a reference subsystem. You need to make another model file to put the reference subsystem in. If you want to test you subsystem without the main\_model.slx: create another test model file in the folder of the reference subsystem.

# Were to put new functions/refence subsystem/data?

## Functions:

Store functions in the folder “Matlab>Simulink\_Model>Referenced\_Functions>YOUR\_PART>…”.

## Referenced subsystem.

Store functions in the folder “Matlab>Simulink\_Model>Referenced\_Subsystems>YOUR\_PART>…”.

## Data:

Don’t add large data files to Git. Add them in the folder “Model\_Data” in the CPS teams folder so everybody can copy and paste that folder on their own pc.