1. Items done this session:

Task-7:

Firstly, we created a Simulink model to read inputs data from robot arm and stored data from Encoders of each channels as theta1 and theta2 into Workspace. The first problem we have is that there's no signal being read by the model. Then we'd found it is because of the model didn't connected to the microprocessor yet. After bringing the last version of setting from previous assignment, this problem is fixed.

The second problem we got in reading model is that the first version of design the last part of the link is directing upward, not as in the real-world directing downward. So we add a pi phase delay to make the last link up side down, and it becomes as same direction as in the real world.
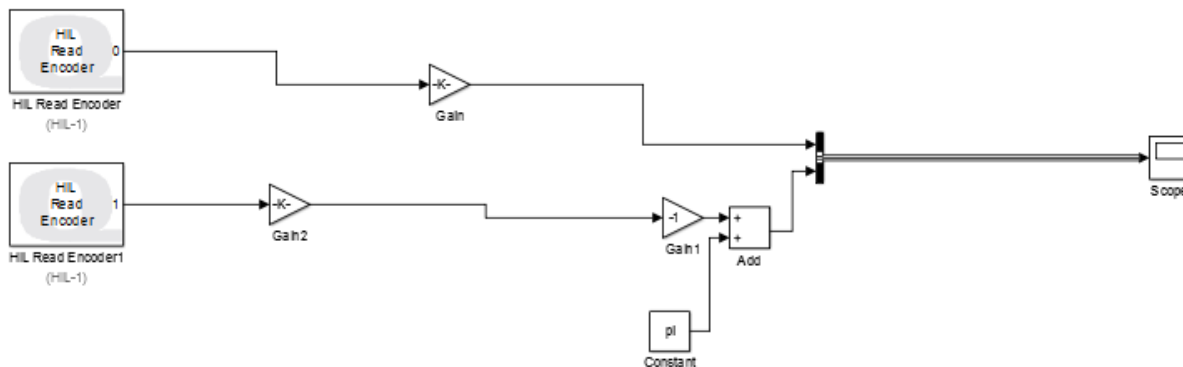

Secondly, we created another model which can read data that being recorded previously and feed this data into a function which can plot the (theta1,theta2) position on 3-D graphs in a given simulation time period.

In this part of model, we can read a given matrix of N by 3, where N is the sampling number when recording data from the previous model and 3 represents "Time", "Theta1" and "Theta2" value respectively.

After all problems fixed, we created a recording of rotating first link and than rotating second link, as the gif shown below.
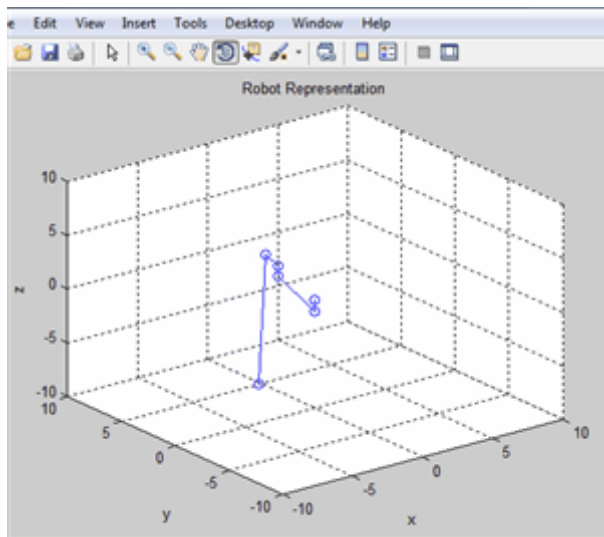
2. Items for next session:

Progress on the next assignment.

3. Problems / Concerns:

There's one concern. We want to plot Workspace plotted by spherical coordinate with robot arm simulation, however, it will become hard to see how arms moving and sampling time become really slow.