

Week 4 – ABB Robot Teaching 9: External Axis

Advanced Robotic Systems – MANU2453

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Content

- Introduction
- Add External Mechanism
- Add Robot
- Create Robot System from Layout
- Jog Robot and Track
- Teaching Target Points

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Introduction

- Sometimes, the **workpiece is too large** for the robot to work on.
 - E.g. Using a robot to polish the body of an aeroplane or ship.



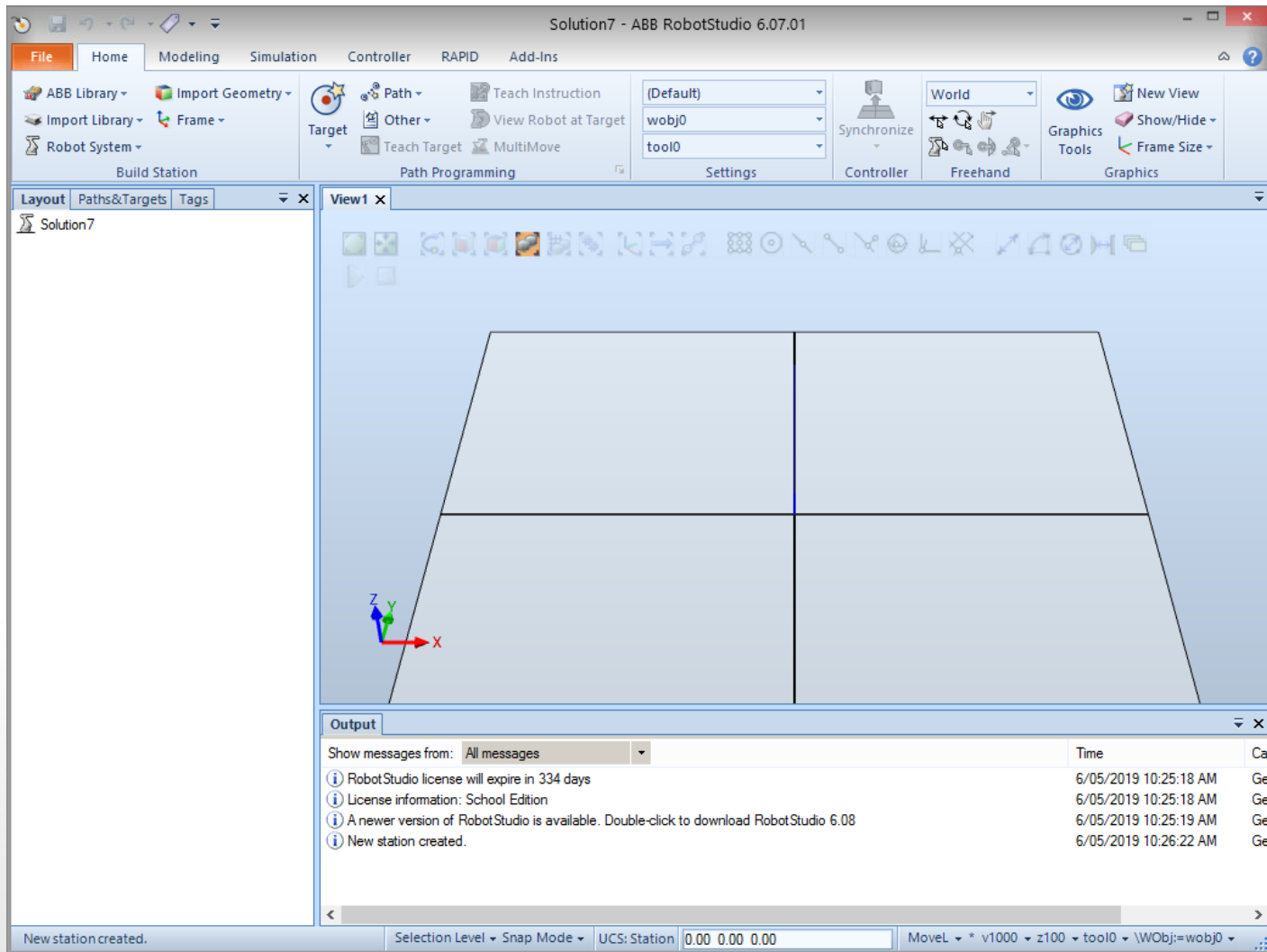
- Now, if we put the robot on an **external mechanism**, we can increase the total workspace!

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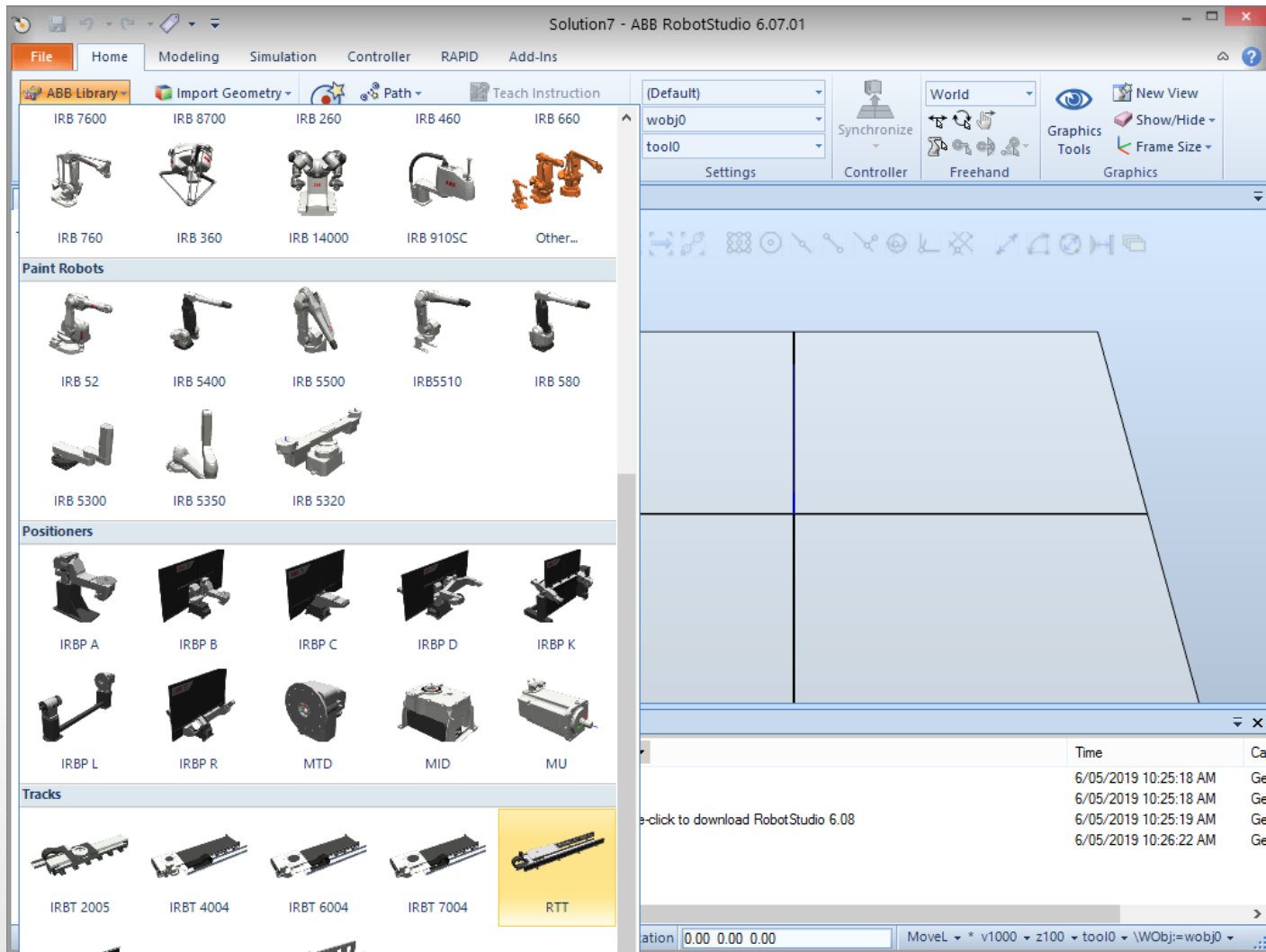
Add External Mechanism

- First of all, start ABB Robotstudio as usual.



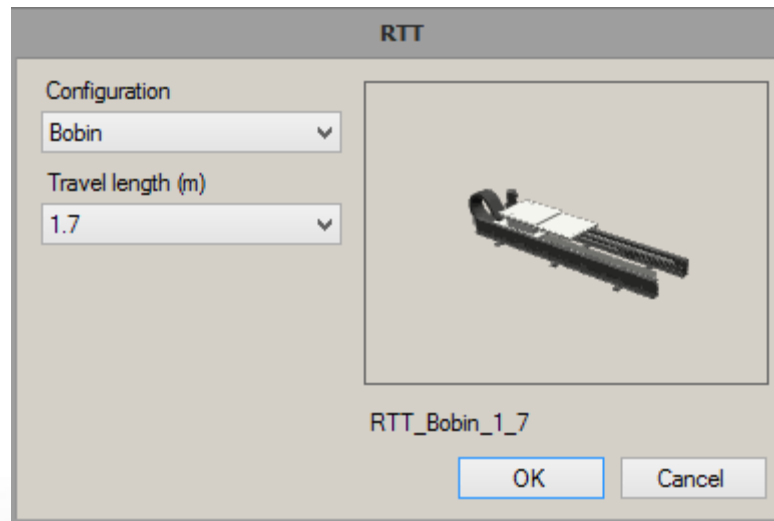
Add External Mechanism

- Under ABB Library, choose any of the tracks, e.g. “RTT”.



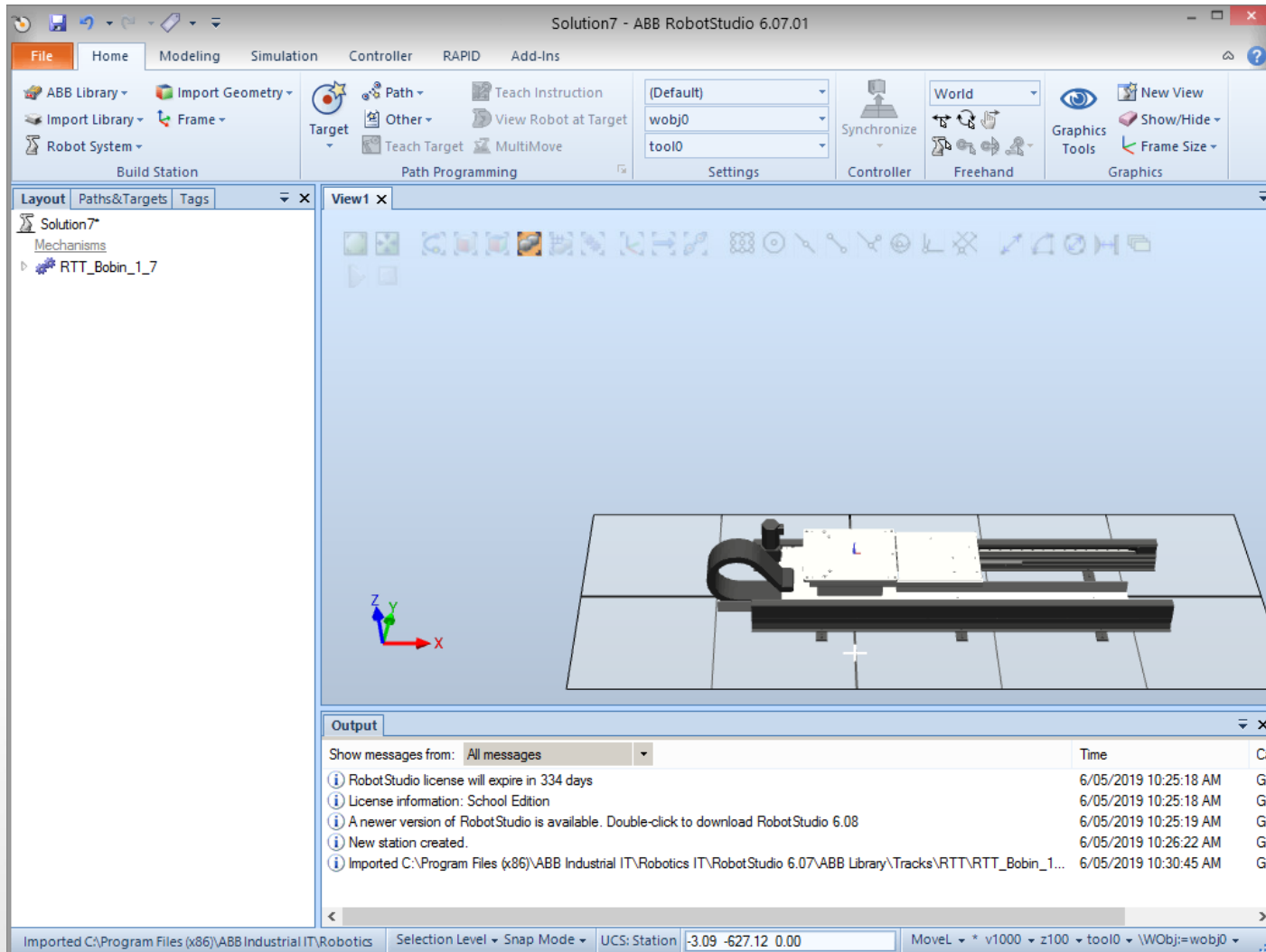
Add External Mechanism

- Then choose **any of the options** suitable for your application.



Add External Mechanism

- The **external mechanism** is now added to your workcell.

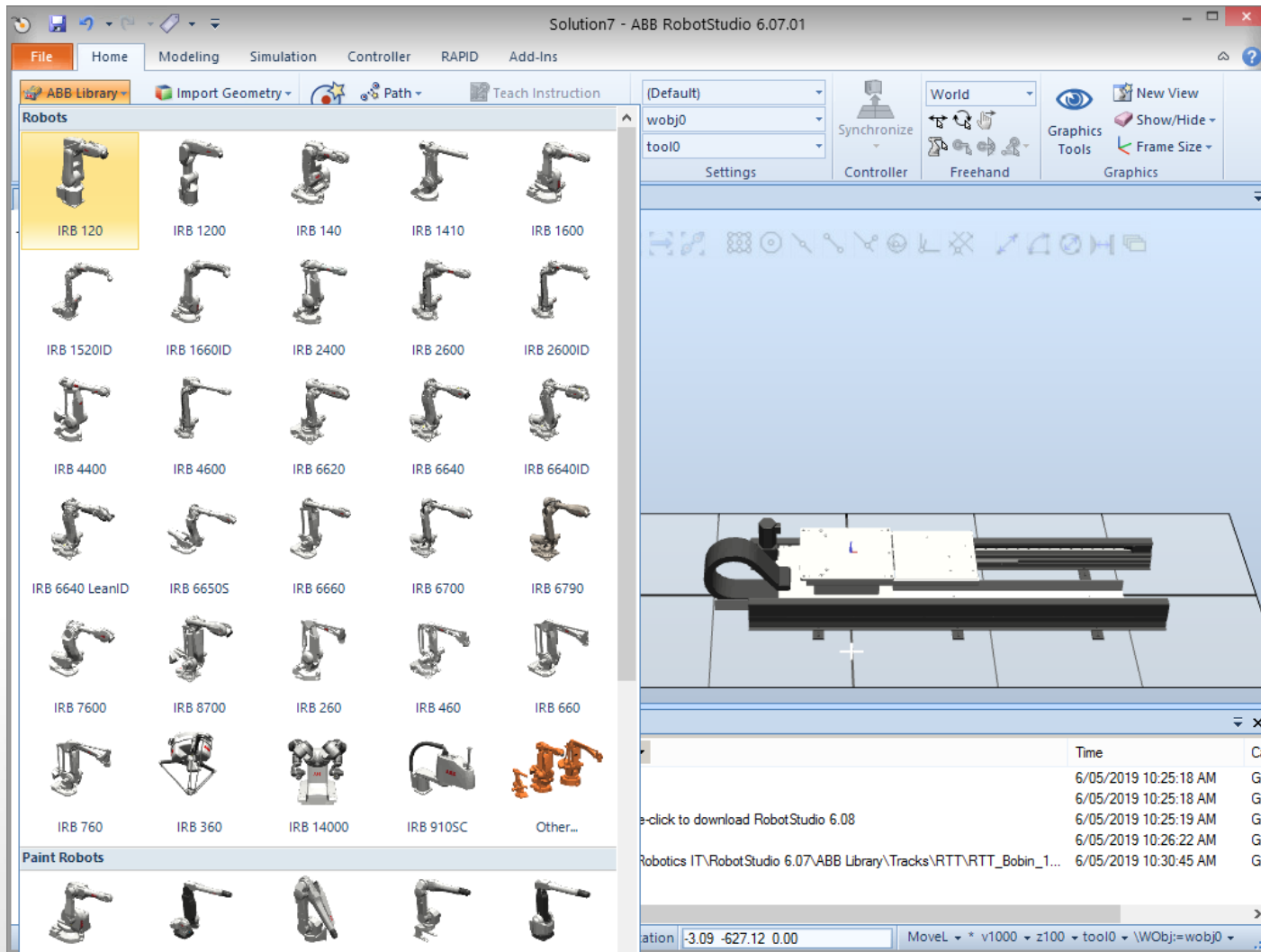


Content

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- Teaching Target Points

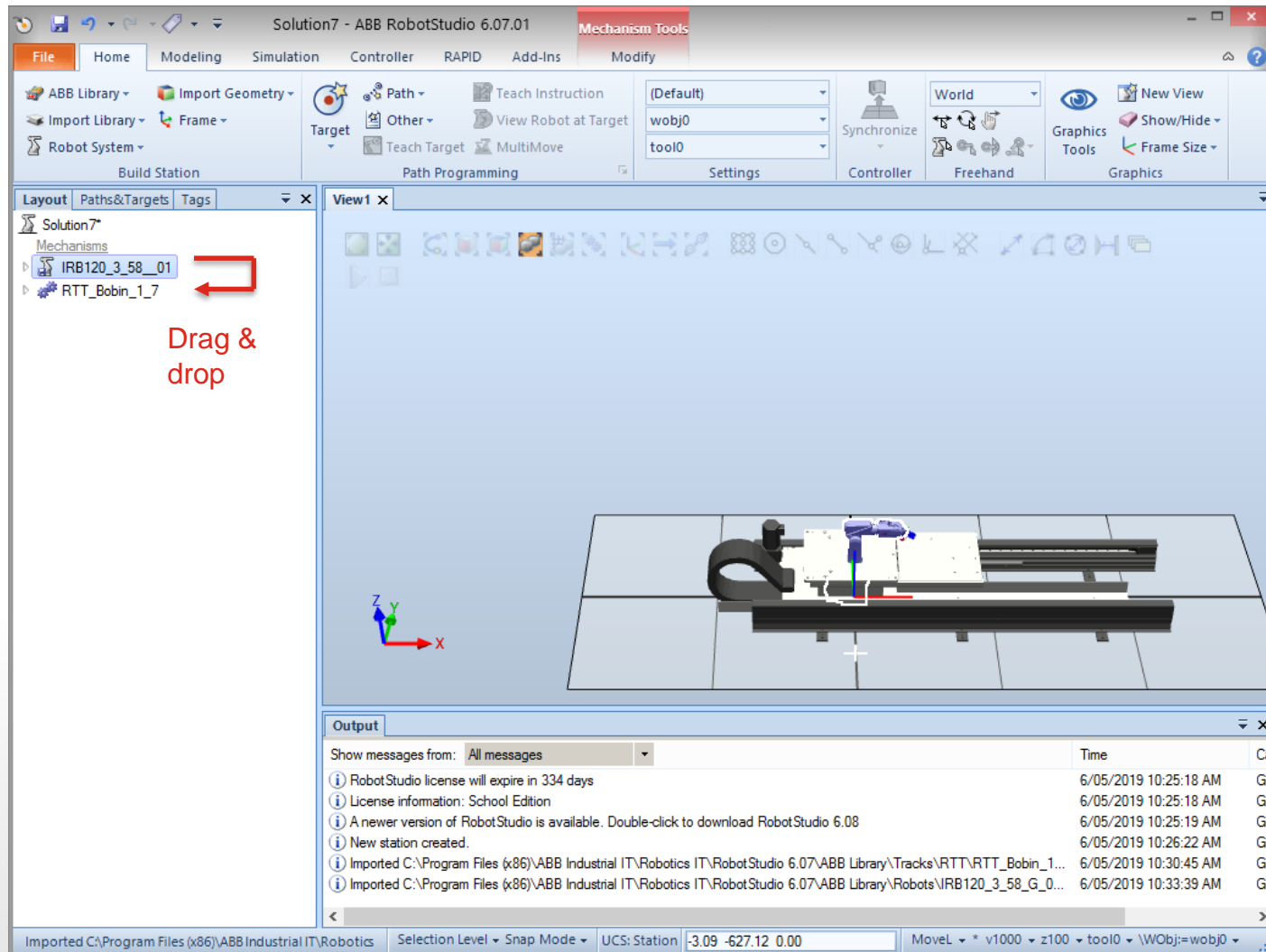
Add Robot

- Next, **add robot** to the workcell.



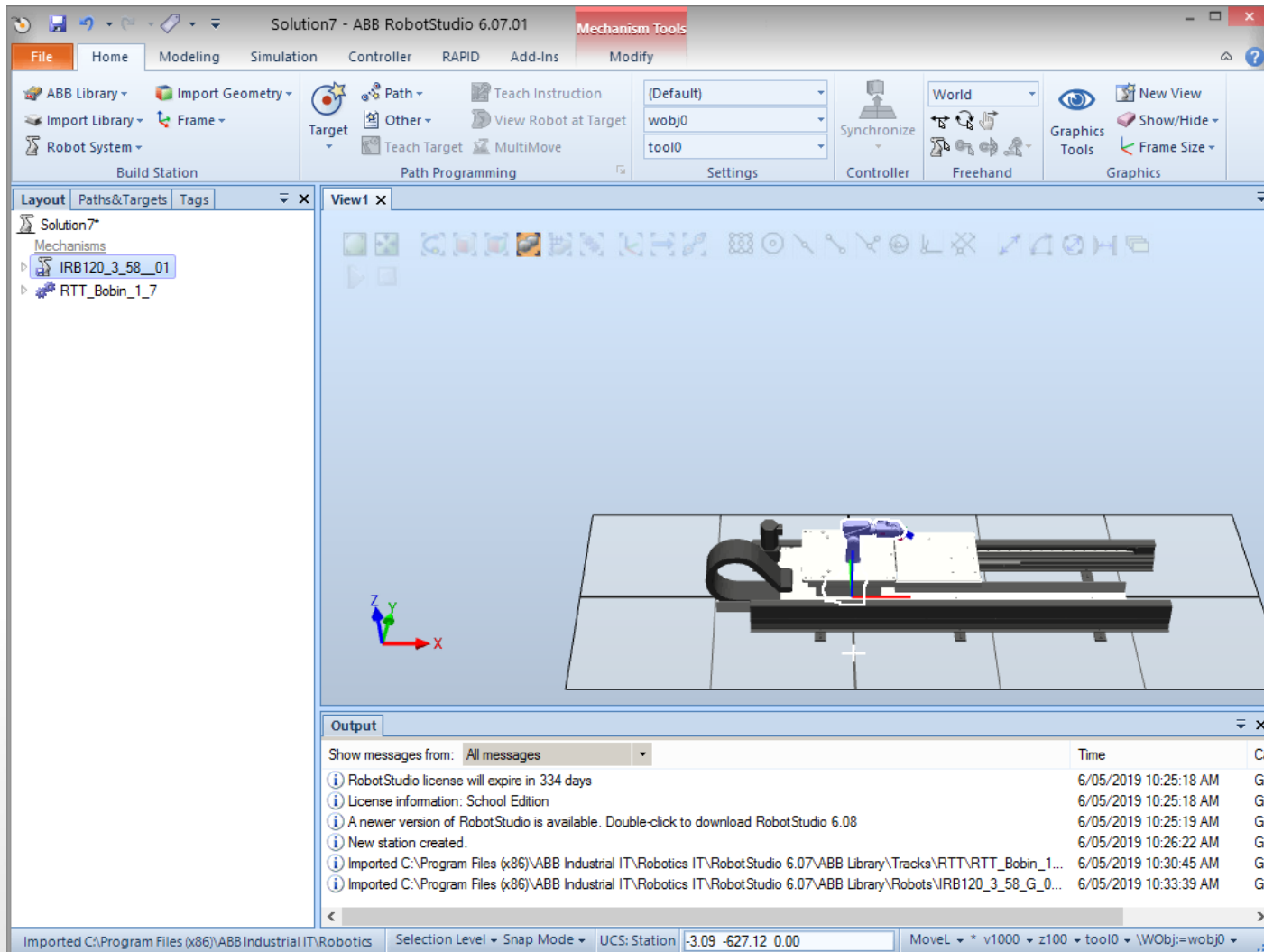
Add Robot

- Attach robot onto the track.



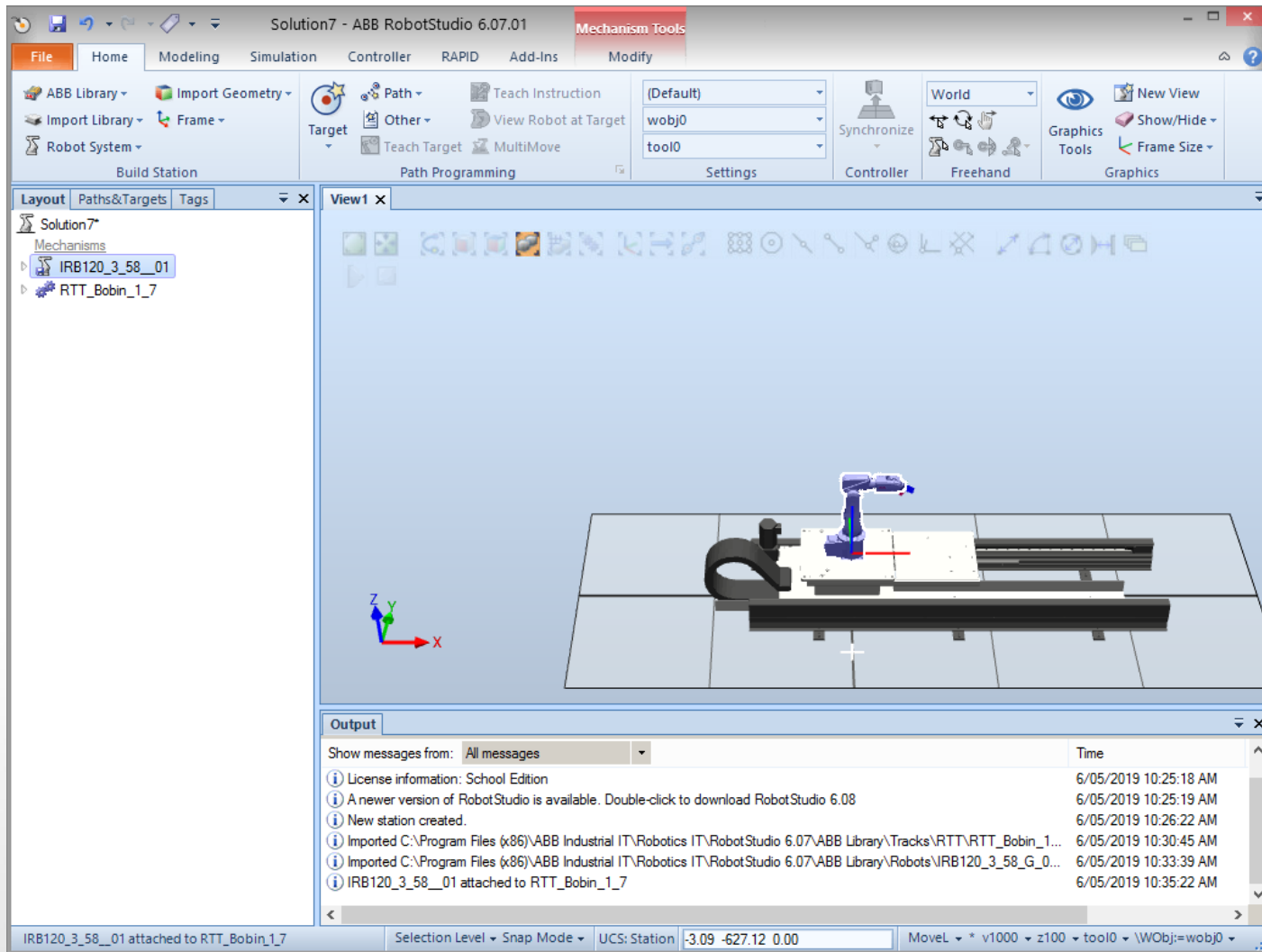
Add Robot

- Click YES to the subsequent 2 questions.



Add Robot

- The robot is now **attached** to the track.

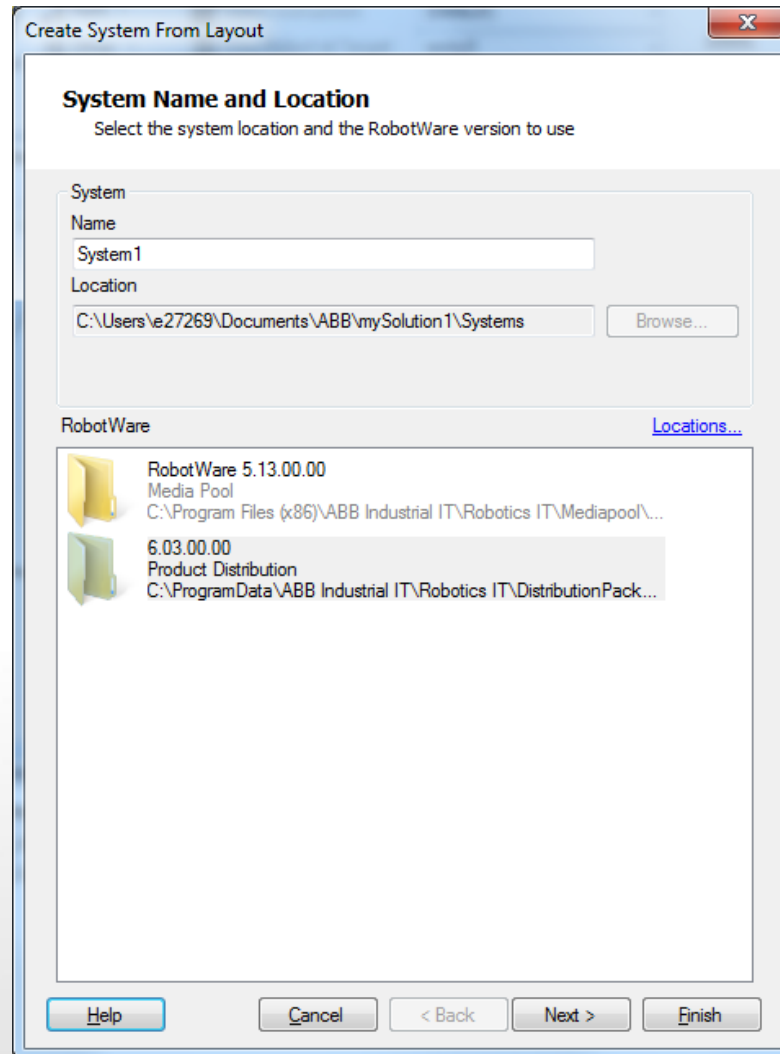


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Create Robot System from Layout

- Click Robot System → From Layout.

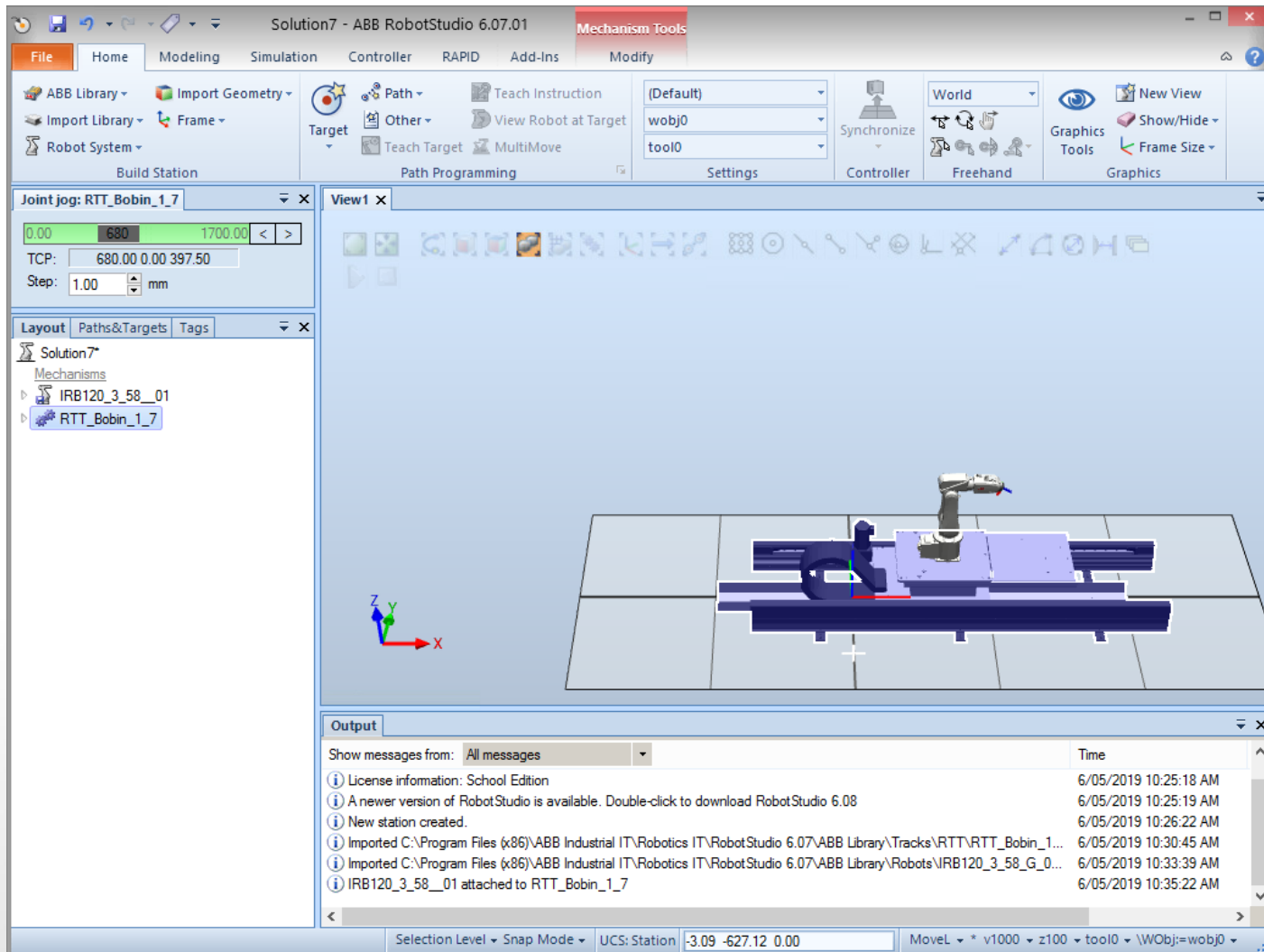


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Jog Robot and Track

- You can now **jog** both the robot and track.

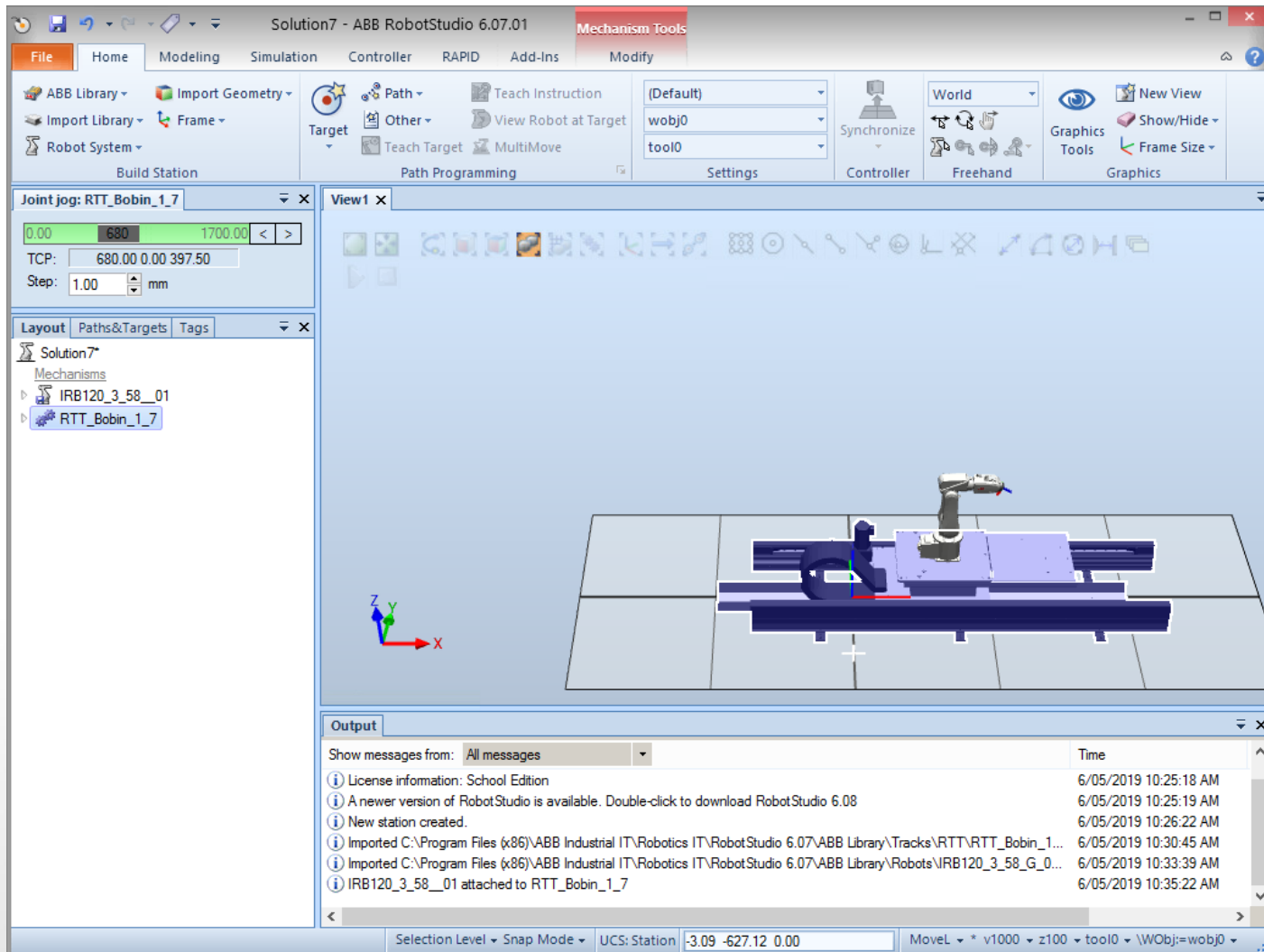


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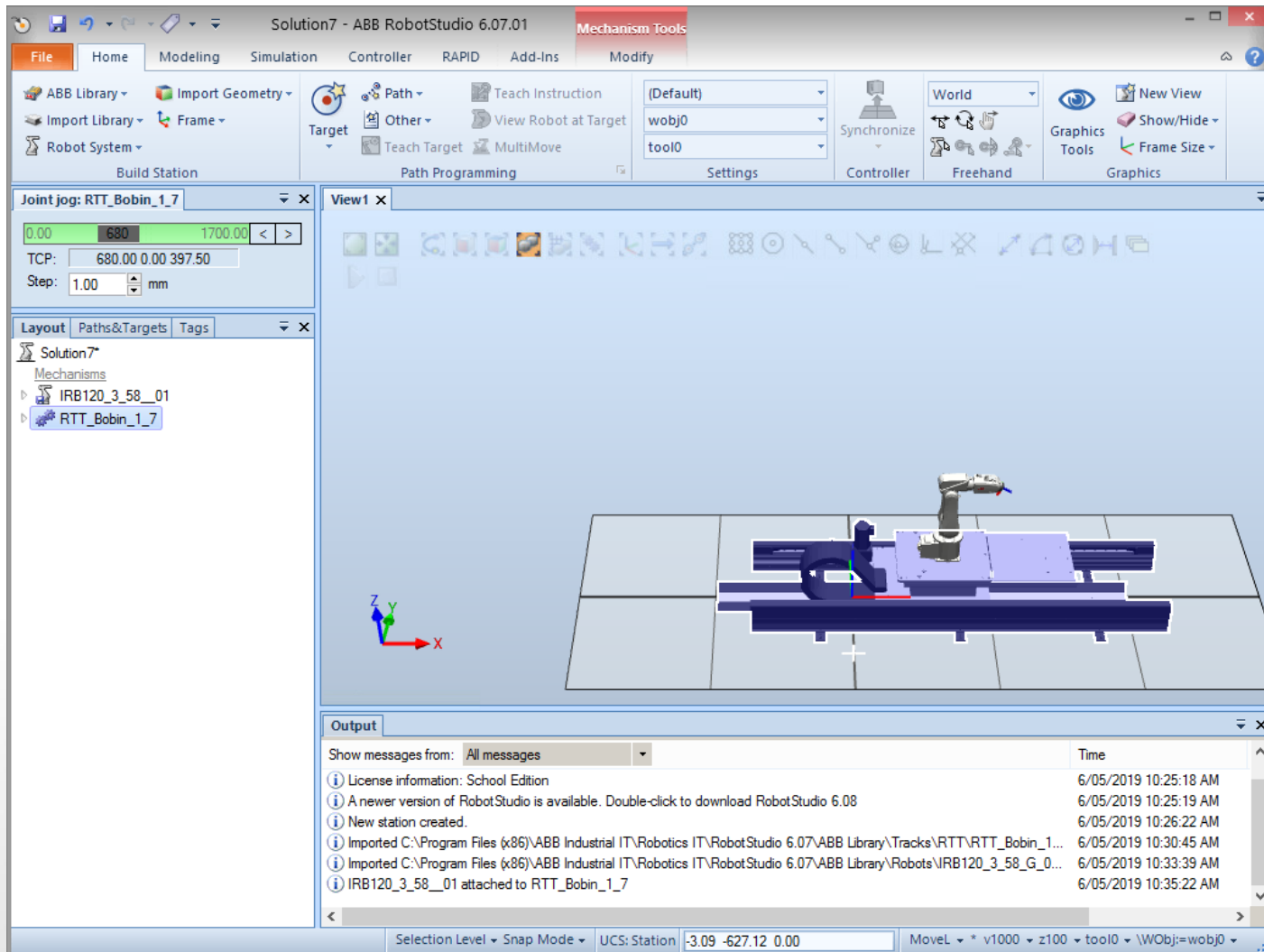
Teaching Target Points

- Note: **jog the track** to a feasible position **first**, before hitting “create target”.



Teaching Target Points

- After that, follow same procedure → create path → auto configure etc.



Thank you!

Have a good evening.