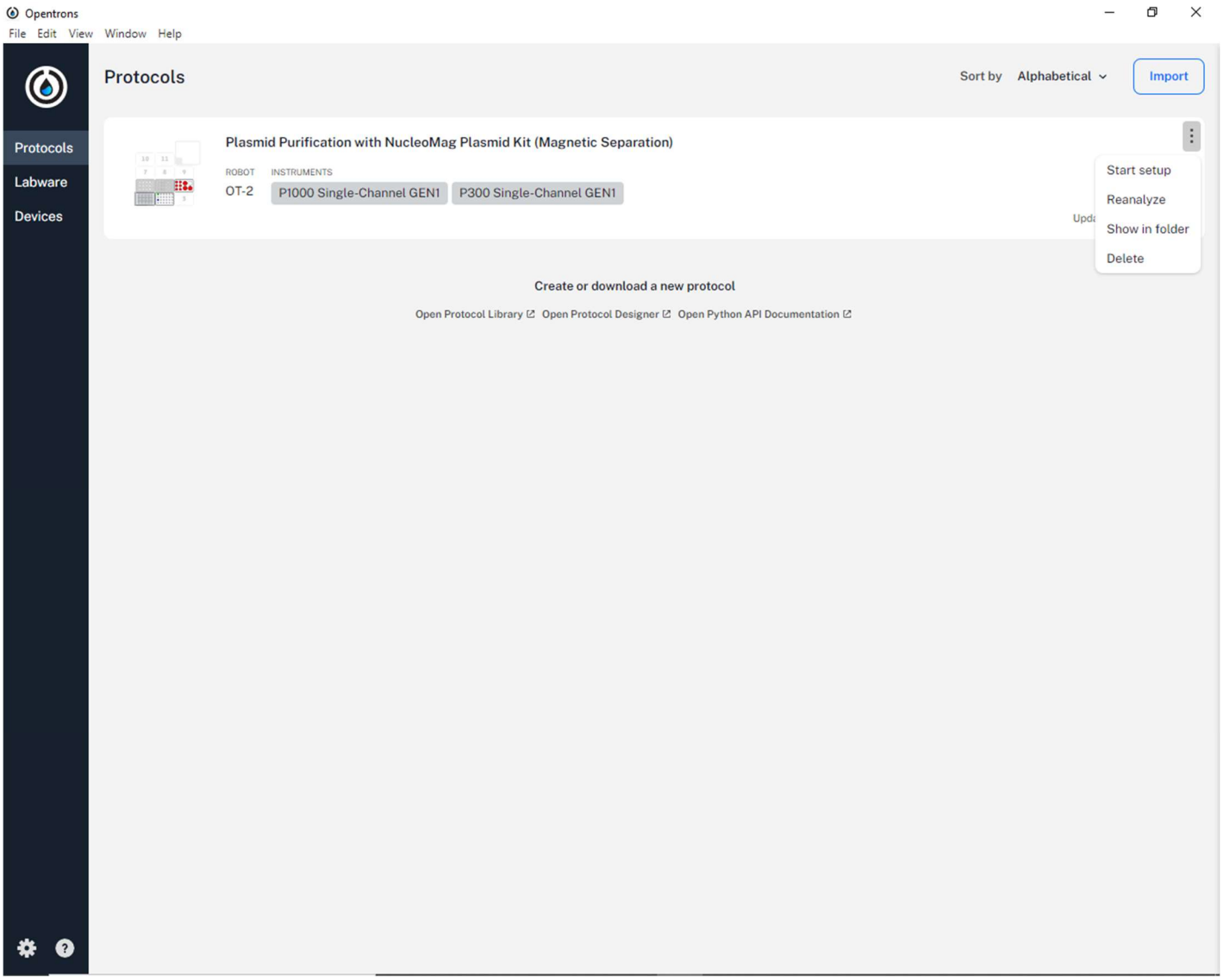
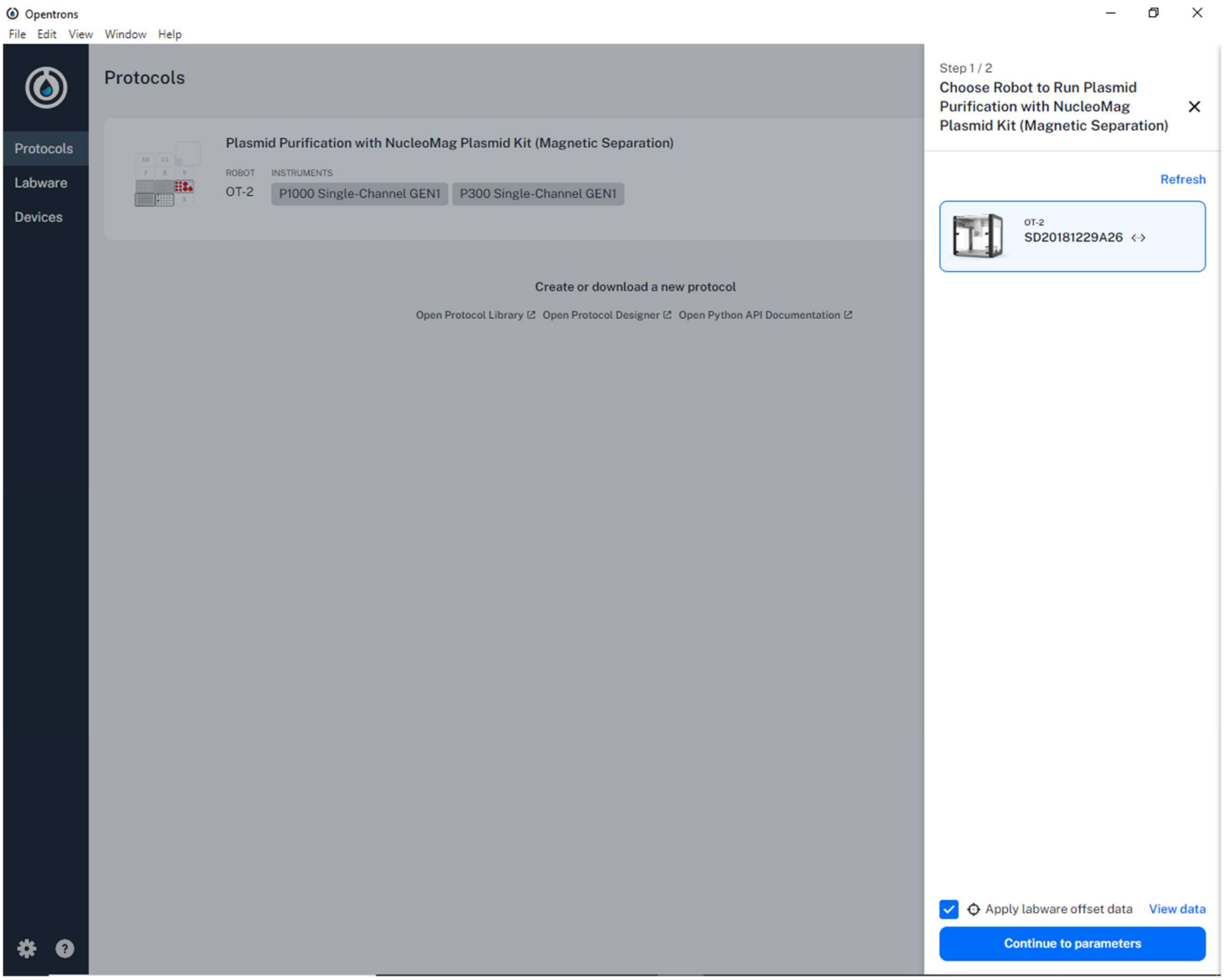
User Manual

Plasmid Purification with NucleoMag Plasmid Kit

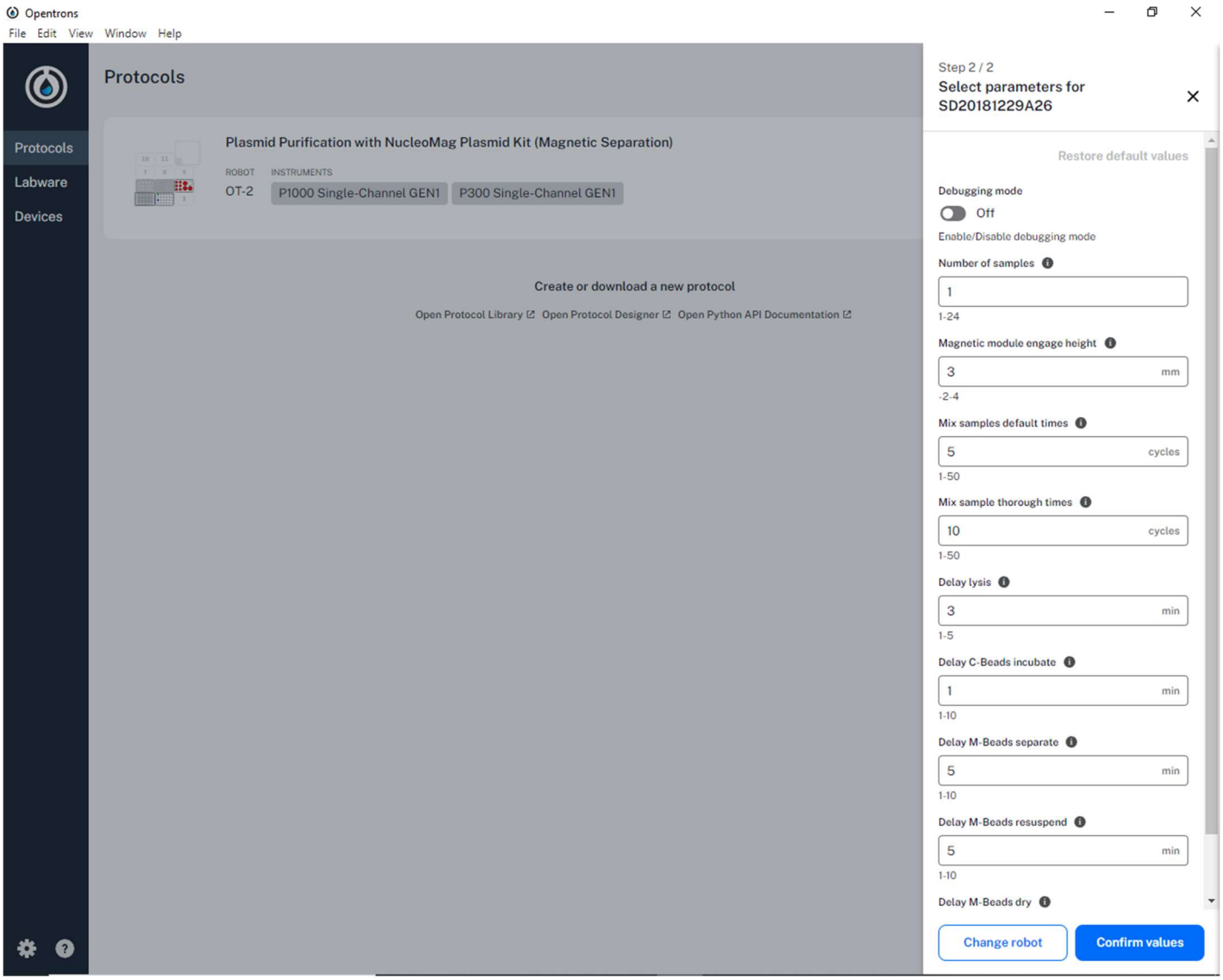
1. Start the Opentrons OT2-Robot.
2. Turn on all necessary modules for the plasmid purification protocol (Magnetic Module).
3. Start the Opentrons App.
4. In the „Protocols“ tab find the “Plasmid Purification with NucleoMag Plasmid Kit (Magnetic Separation)” protocol.
5. For the protocol, press the three vertical dots at the upper right corner and select “Start setup”.



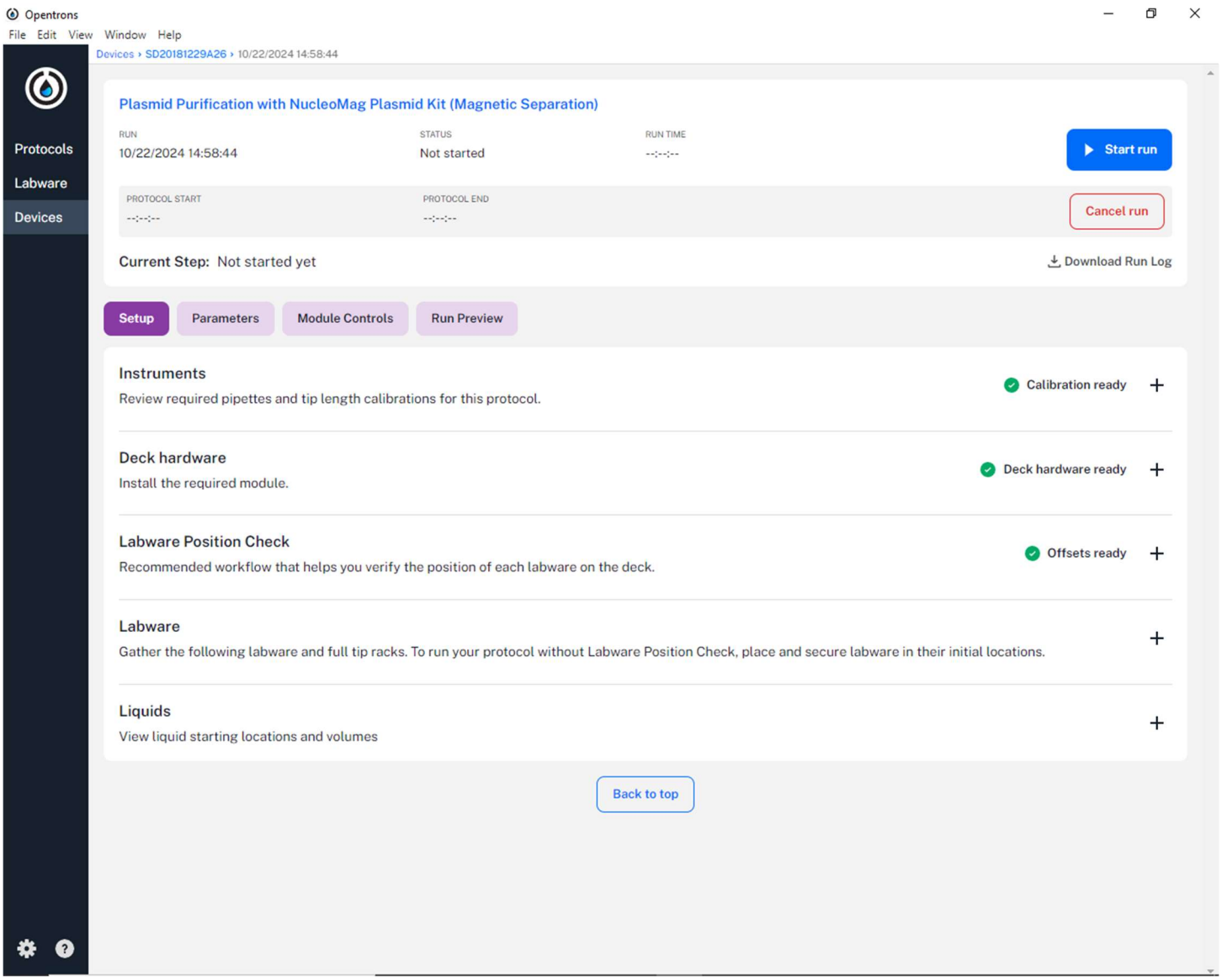
6. A sidebar appears with the OT2-Robot and a selected checkbox “Apply labware offset data”. **Keep the checkbox selected** and press “Continue to parameters”.



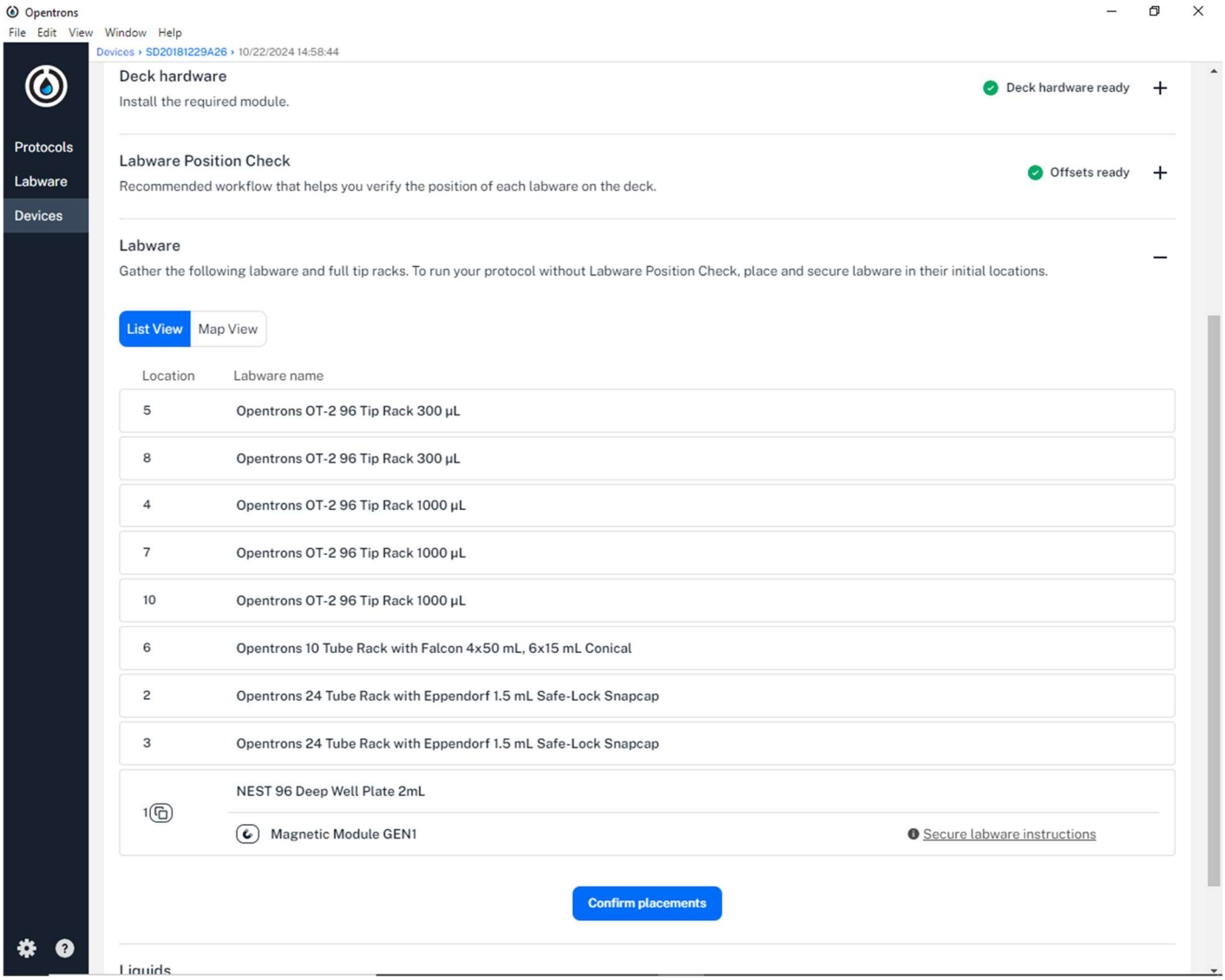
7. The parameter selection sidebar appears. Here you can customize the protocol parameters. **Most important is setting the correct number of samples here.** Number of mixing steps, incubation times and other delays can also be changed, however, the default values should normally be suitable.



8. Now the protocol is analyzed by the Opentrons App. This means it simulates the protocol and checks for programming errors and logical mistakes. This analyzation takes different amounts of time depending on the number of samples, so be patient. Only proceed after the blue button in the upper right corner says “Start run”.

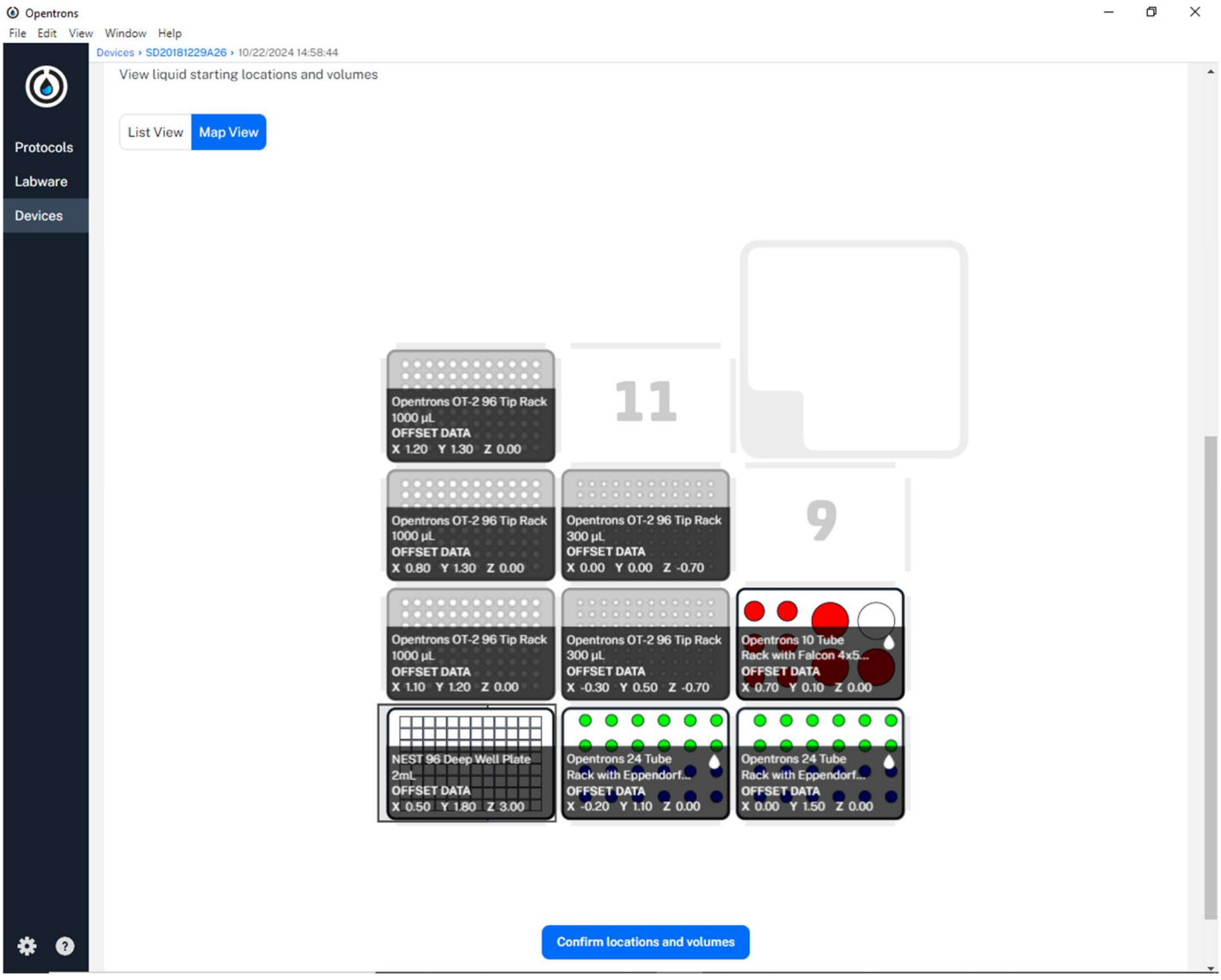


9. Expand “Labware” by selecting the “+” symbol, check if the correct labware is at the correct slots on the OT2 deck and press “Confirm placement”.

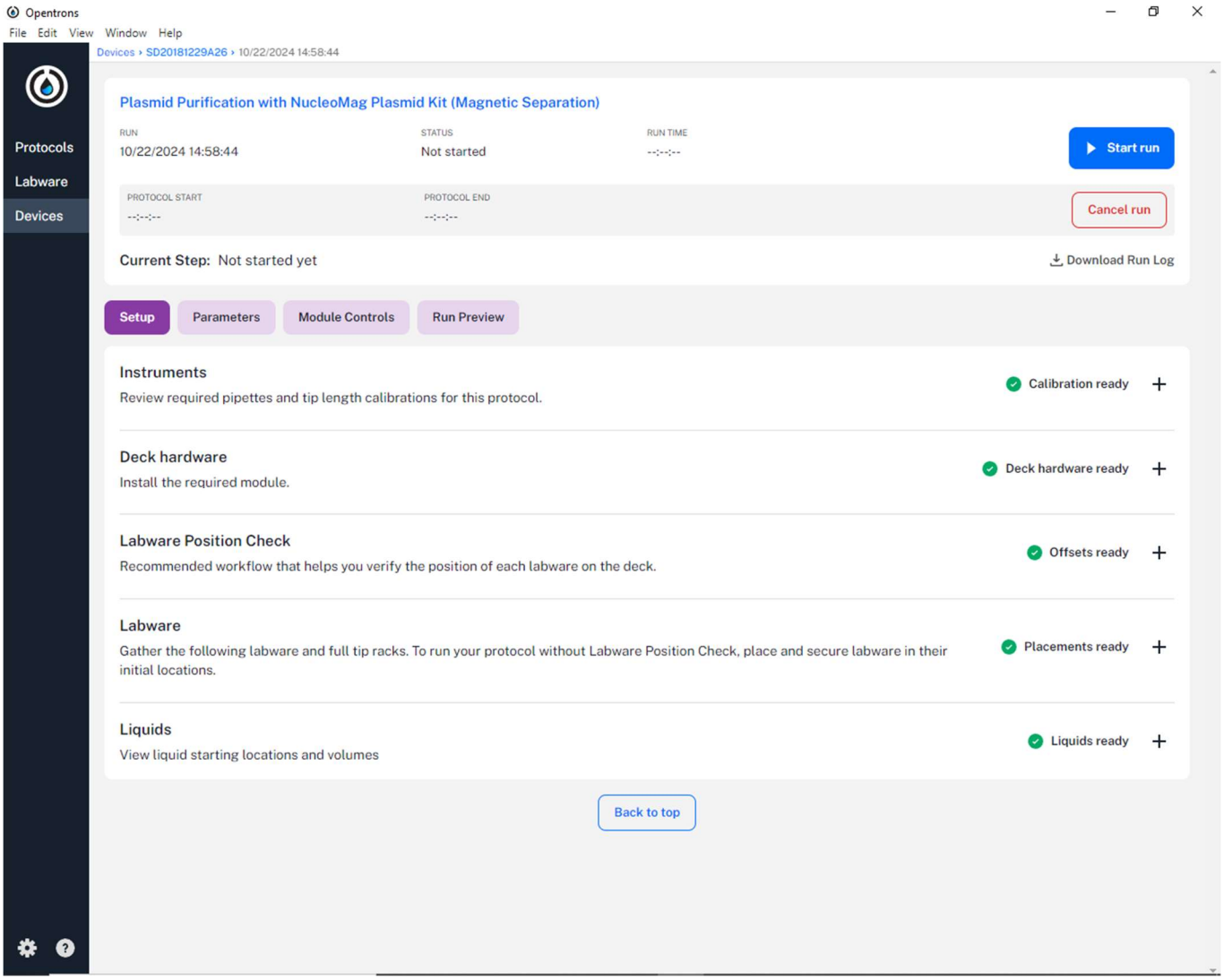


10. Expand “Liquids” by selecting the “+” symbol, press “Map View” and check again if the correct labware is at the correct slots on the OT2 deck. Next you can click on each labware and check if the correct eppi/tube with the correct chemical (liquid) is placed at the correct well in the labware with the correct volume. The color coding is:
    a. Red: Checmicals
    b. Green: Bacterial Culture Pellets
    c. Blue: Empty eppis for purified plasmid storage

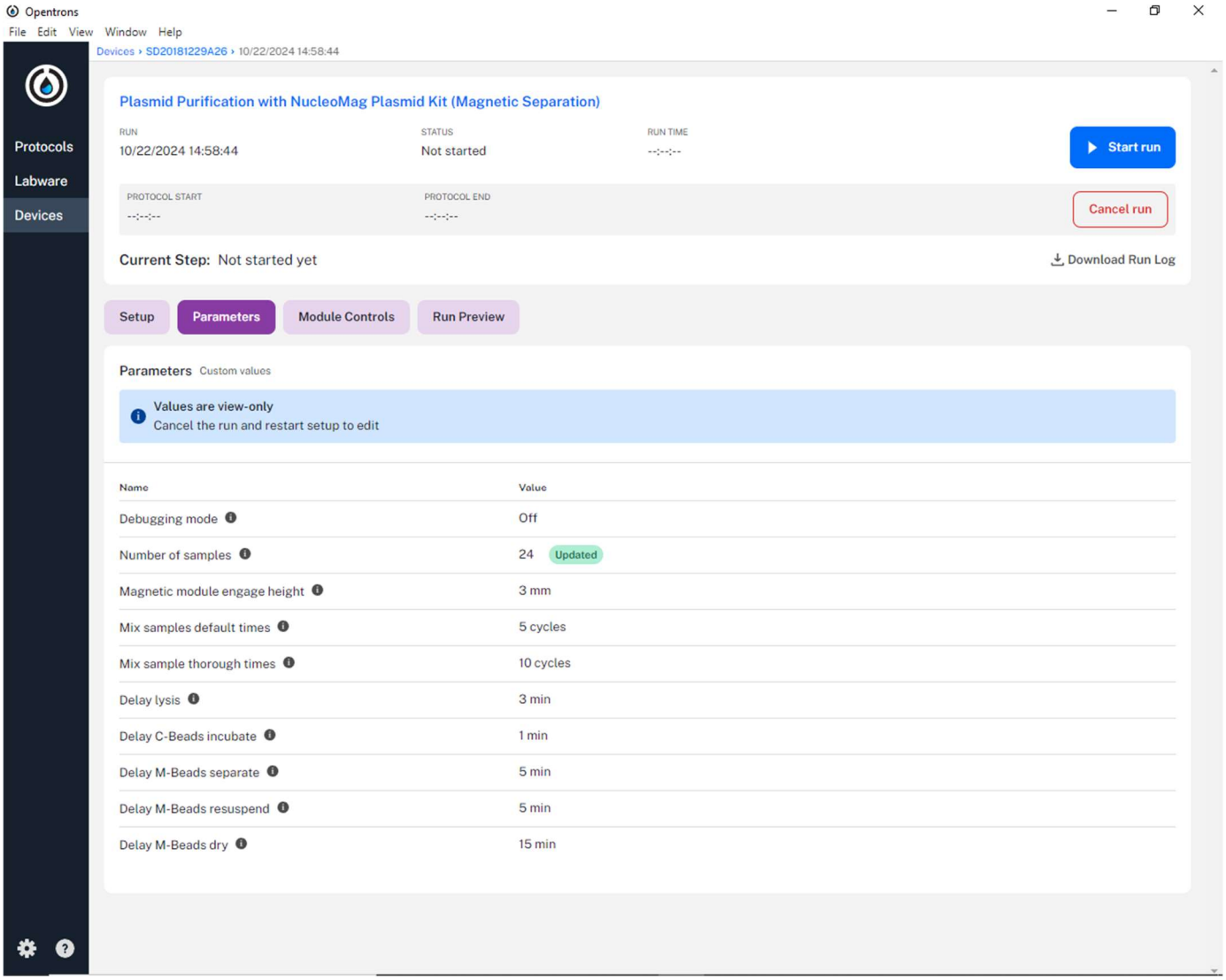
    After checking that everything matches between the OT2 deck and the protocol press “Confirm locations and volumes”.



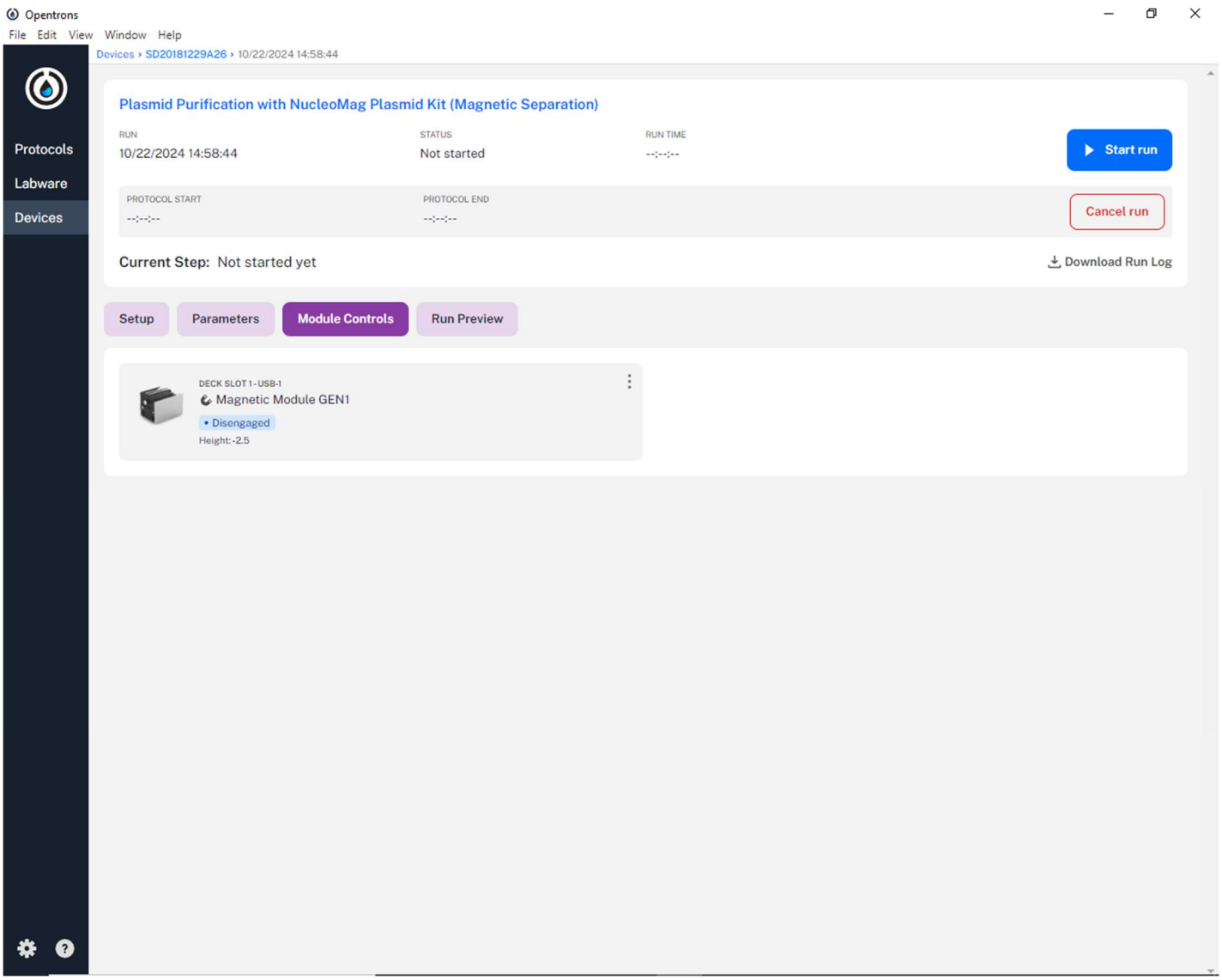
11. There should now be a green tick at “Instruments”, “Deck hardware”, “Labware Position Check”, “Labware” and “Liquids”. If this is the case you are ready to go. Otherwise expand the category that doesn’t have a green tick and proceed with the preparations at the suitable part of this manual. **If “Instruments” or “Deck hardware” is not ticked green call the Device Manager!**



12. Optional: If you want to be sure that the protocol parameters are correct (especially the number of samples) press the “Parameters” button and recheck them.



13. Optional: If you are unsure of the status of the connected modules (here only the Magnetic Module) press the “Module Controls” button and check the status of the modules. If it shows that the module is unavailable check if the module is turned on.



14. Optional: If you want to see exactly what the protocol will do (all steps in detail) press “Run Preview” and check the steps manually.