

Station D: Sample Transfer COVID-19 Setup guide

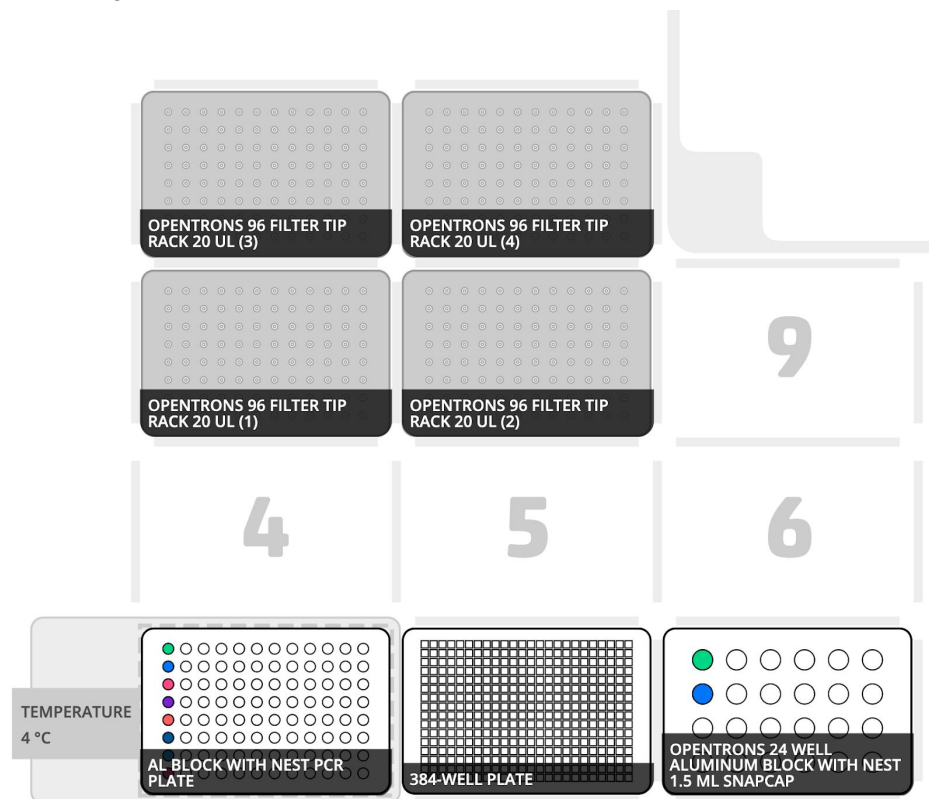
Code parameters:

- Change the sample number on line 11 (we start at 8)
- Change the sample volume on line 12 (default is 5µl)
- Change the number of spots per sample on line 13 (default 1)
- Control samples can be changed from 2 to any number (0 for no controls) on line 14
- The type of destination plate can easily be changed by changing line 15

Pipettes:

- P20 single-channel on the right mount (if adding controls)
- P20 multi-channel on the left mount

Deck Layout:

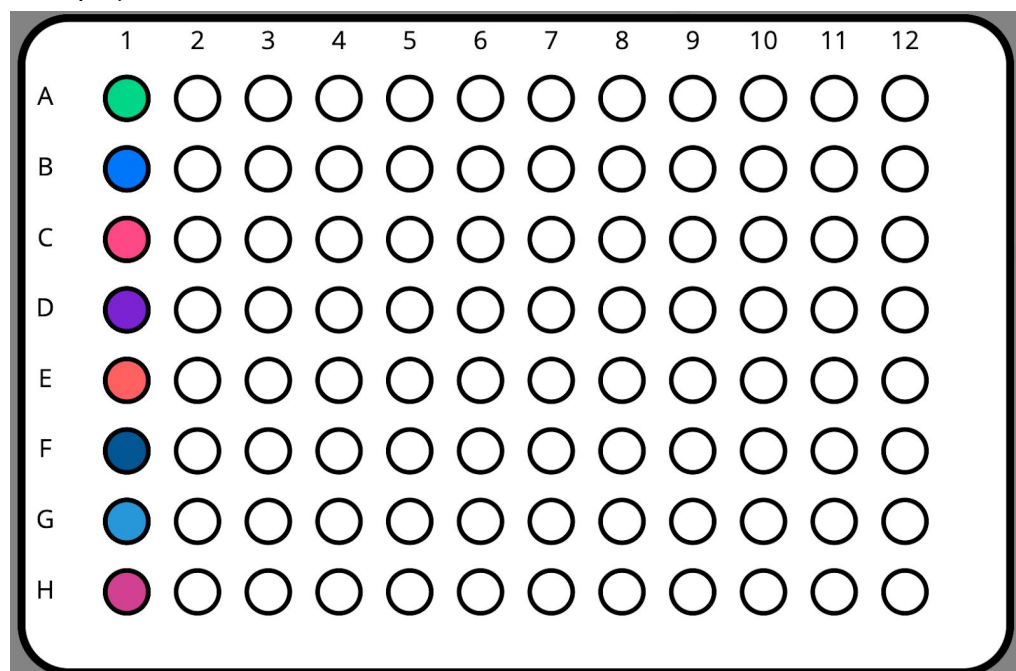


Labware and module requirements:

- 1 x Opentrons Temperature Module and Aluminum Block Set
- 1 x NEST 96-Well PCR Plate,
- 1 x Destination Plate (384-Well or 96-Well)
- 1 x 24 well aluminum block with tubes for controls (**if adding controls**)
- 1-4 x 20µl Tiprack(s)

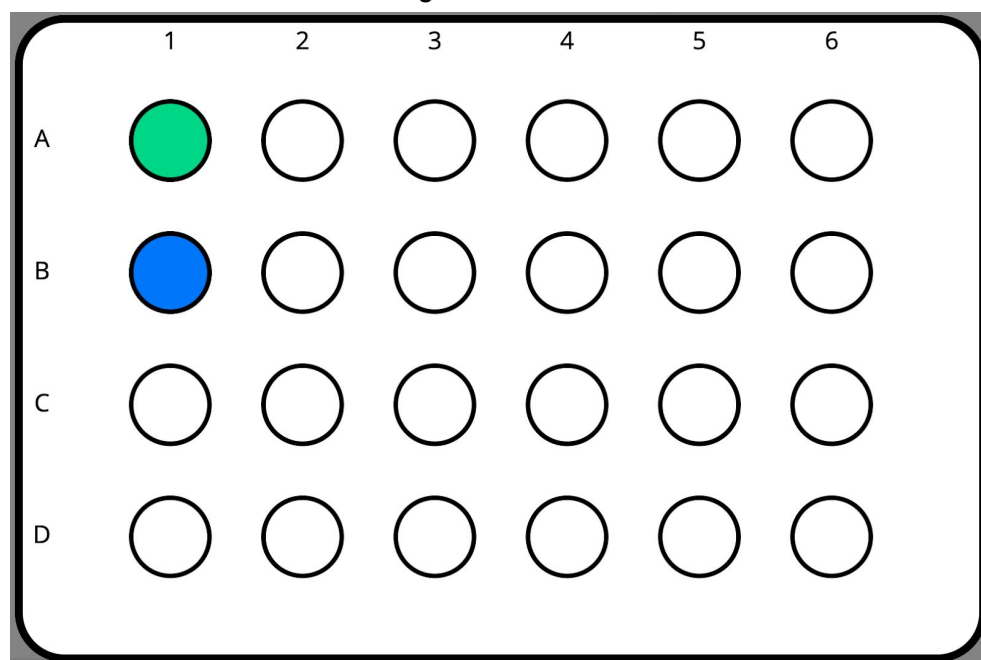
Slot 1, Temperature Module with 96-Well Aluminum Block + NEST PCR Plate -

Extracted samples (from Station B) should be in NEST PCR Plate (color coded here for example).



Slot 3, 24-Well Aluminum Block + 1.5mL Tubes (if adding controls) -

Load tubes with controls, starting at A1, then B1, etc.



Slot 2, Destination Plate (384-Well or 96-Well) -

Plate should be filled with mastermix from Station C. Starting in row A (A/C/E...), samples from the 96-Well Plate on the Temperature Module (Slot 1) will be added across per the number of spots (line 13 in code). After row A is filled, row B (B/D/F...) will be filled with samples (if using a 384-well plate). Finally, controls will be added to the last wells of the plate (if using a 384-well plate, row P starting from well 24; if using a 96-well plate, column 12 starting with H)

Example layout of 8 samples (line 11), 2 spots (line 13), and 2 controls (line 14) in a 384-well plate

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	Green	Green																						
B																								
C	Blue	Blue																						
D																								
E	Pink	Pink																						
F																								
G	Purple	Purple																						
H																								
I	Red	Red																						
J																								
K	Dark Blue	Dark Blue																						
L																								
M	Light Blue	Light Blue																						
N																								
O	Pink	Pink																						
P																							Green	Blue

Before you begin:

1. Load all modules, labware, tipracks
2. Ensure labware matches definitions in protocol file
3. If automating control addition, load 24-well aluminum block with controls