

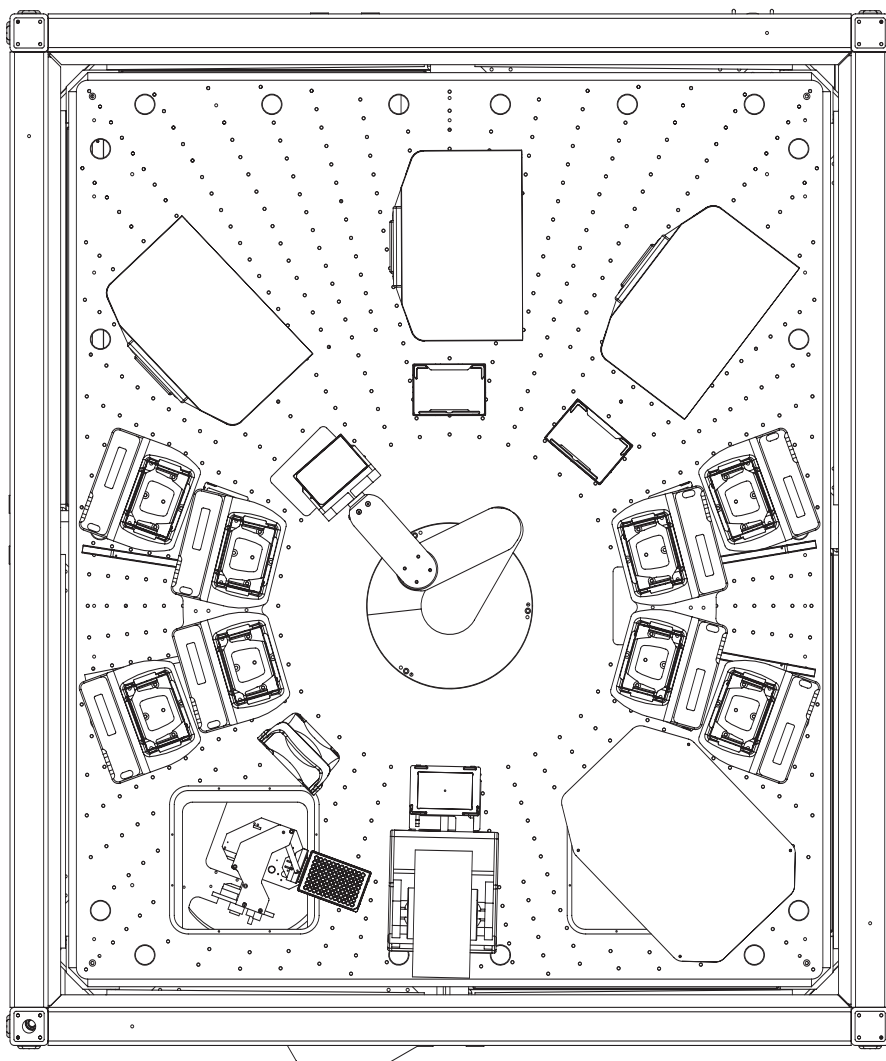
# Agilent BioCel System Configuration

## DNA Purification and Sequencing

### Application Bulletin

The demand for quick and reliable DNA sample preparation for sequencing has risen dramatically during the last 5 years. The long and complex pipetting protocols needed for DNA preparation have been a challenge for lab automation systems. Agilent Automation Solutions has met this challenge by designing a BioCel that centers around the Agilent Vertical Pipetting Station, a high-speed precision pipettor. With its versatile shelf configuration options, the Vertical Pipetting Station is ideally suited for complex pipetting sequences, while at the same time achieving very high throughput.

In this application, using three Vertical Pipetting Station pipettors, the source plate with DNA is split into two copies. The copied DNA is purified using magnetic beads, ethanol washing steps and magnetic nesting pads. Primer cocktail is added to the plates, and they are centrifuged, sealed and then stored at (4°C) in an incubator (LiCONiC StoreX). With this design, 200 prepared plates are processed in four hours, sample contamination is eliminated and the highest possible quality of sequencing preparations is ensured.



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**Module List**

<b>Component</b>	<b>Quantity</b>	<b>Function</b>
Agilent robot	1	360° high speed robotic plate handler
Agilent Vertical Pipetting Station	3	Liquid handling stations
Teleshake	2	Orbital plate shaker
Agilent Microplate Centrifuge	1	Indexing centrifuge
Agilent PlateLoc Thermal Microplate Sealer	1	Thermal plate sealer
LiCONiC StoreX	1	240-plate capacity cold plate storage
Agilent Labware Stacker	8	50-plate room temperature storage
Weigh Pad	4	Reagent and wash fluid monitoring

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