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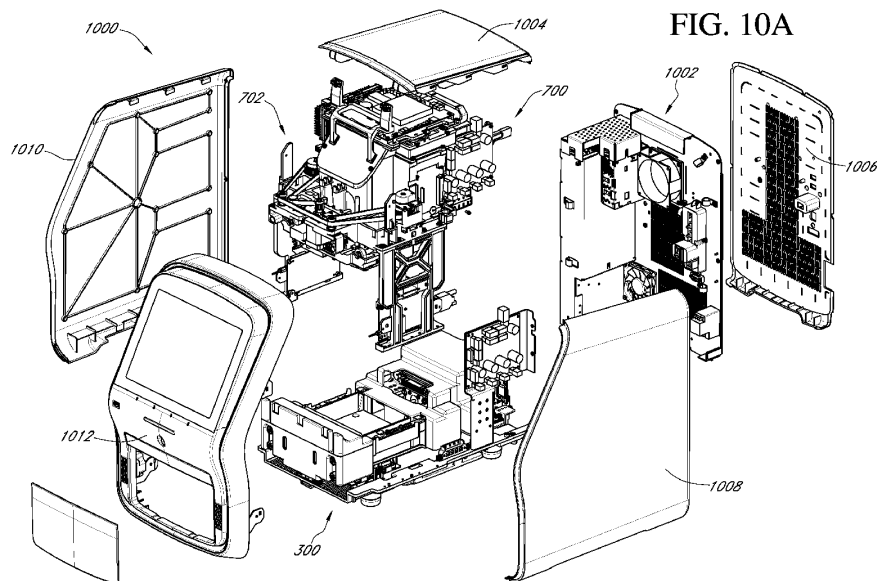
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(54) Title: BIOLOGICAL ANALYSIS SYSTEM AND METHODS



(57) Abstract: A system for biological analysis includes a housing, a block assembly within the housing having a sample block and a baseplate, a heated cover and a cover carrier. The sample block receives a sample holder comprising an RFID tag. A first drive mechanism generates relative movement between the sample block and the baseplate along a first axis. A second drive mechanism generates relative movement between the heated cover and the cover carrier along a second axis that is different from the first axis. Based on a first command the first drive mechanism releasably engages the sample block and operates the second drive mechanism to releasably engage the heated cover with the cover carrier. The system also includes first and second RFID antennas that receive RFID data from the sample holder RFID tag that is read by at least one RFID reader.

[Continued on next page]

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