CLAIMS

WHAT IS CLAIMED IS:

1. A robotic assembly configured to service an engine, wherein the robotic assembly comprises:

an environmental capture device in communication with one or motte computing devices and configured to provide information associated with an environment in which the engine is disposed to the one or more computing devices, and

wherein the one or more computing devices are configured to use the information to inspect the engine before and after repair operations associated with ~~the~~ a service to check for repair equipment, or parts thereof, left in the engine after the repair operations.

2. The robotic assembly of claim 1, wherein the one or more computing devices are configured to check ~~checking~~ for the repair equipment left in the engine comprises comparing an initial view of the repair equipment prior to the repair operations with a post view of the repair equipment after the repair operations.

3. The robotic assembly of claim 1, wherein the one or more computing devices are configured to ~~checking~~check for the repair equipment left in the engine comprises checking for domestic object debris (DOD), foreign object debris (FOD), or both.

4. The robotic assembly of claim 1, wherein the one or more computing devices are further configured to check for damage to the engine after the repair operations.

5. The robotic assembly of claim 1, wherein the one or more computing devices are further configured to generate an alert when the repair equipment is left in the engine.

6. The robotic assembly of claim 1, wherein the repair equipment comprises tooling, unused parts, wrappers and containers, repair accessories, or the like.

7. The robotic assembly of claim 1, wherein the robotic assembly is at least partially-autonomous, and wherein checking for the repair equipment left in the engine is performed at least partially-autonomously.

~~8. A method of servicing an engine, the method comprising:~~

~~capturing information associated with the engine with an environmental capture device;~~

~~performing a repair operation on the engine; and~~

~~comparing one or more portions of the information captured before performing the repair operation with one or more portions of the information captured after performing the repair operation to check for domestic and foreign object debris.~~

~~9. The method of claim 8, wherein comparing the information is performed by one or more computing devices.~~

~~10. The method of claim 8, wherein checking for domestic and foreign object debris in the engine comprises checking for differences between the information captured before performing the repair operation with the information captured after performing the repair operation.~~

~~11. The method of claim 8, further comprising generating an alert when domestic or foreign object debris is detected.~~

~~12. The method of claim 8, wherein the foreign object debris comprises tooling, unused parts, wrappers and containers, repair accessories, and the like.~~

~~13. The method of claim 8, wherein the environmental capture device is coupled with an at least partially-autonomous robotic assembly, and wherein capturing the information is performed at least partially-autonomously.~~

~~14. The method of claim 13, wherein the at least partially-autonomous robotic assembly, or one or more parts associated therewith, is configured to move relative to the engine while capturing the information.~~

~~15.~~8. ~~An at least partially-autonomous robotic assembly configured to navigate relative to and service an engine, the at least partially-autonomous robotic assembly comprising an environmental capture device,~~The robotic assembly of claim 1, wherein the one or more computing devices comprise a memory storing processor-executable instructions, and a processor to execute the processor-executable instructions to cause the ~~at least partially-autonomous~~ robotic assembly to service the engine by:

determining completed service tasks and yet-to-be-completed service tasks;

maintaining an active log representative of a current step in servicing the engine;

moving relative to the engine during the service; and

inspecting the engine after the service.

~~16.~~9. The robotic assembly of claim ~~15~~8, wherein the environmental capture device is configured to be used to determine completed service tasks, move relative to the engine, and inspect the engine after the service.

~~17.~~10. The robotic assembly of claim ~~15~~8, wherein the ~~step of maintaining~~ the active log is ~~performed~~ maintained by determining at least one of an area of operation relative to the engine or a task being performed by the ~~at least partially autonomous~~ robotic assembly, and comparing the area of operation or task being performed to a workscope map or queue of tasks being performed.

~~18.~~11. The robotic assembly of claim ~~15~~8, wherein the active log is maintained by determining at least one of an area of operation relative to the engine or a task being performed by the robotic assembly, and ~~the step of~~ comparing the area of operation or task being ~~completed~~ performed to ~~the~~a workscope map or queue of tasks ~~is~~being performed ~~on a continuous basis~~.

~~19.~~12. The robotic assembly of claim ~~15~~8, wherein the ~~at least partially autonomous~~ robotic assembly is further configured to perform the service, including at least one of inspection and repair of the engine.

~~20.~~13. The robotic assembly of claim ~~15~~8, wherein the ~~at least partially autonomous~~ robotic assembly is configured to service the engine while the engine is at an elevated temperature.

14. The robotic assembly of claim 1, wherein the one or more computing devices are configured to compare one or more portions of the information captured before performing the repair operations with one or more portions of the information captured after performing the repair operations to check for the repair equipment, or parts thereof, left in the engine after the repair operations.

15. The robotic assembly of claim 14, wherein the one or more computing devices are configured to check for differences between the information captured before performing the repair operations with the information captured after performing the repair operations.

16. The robotic assembly of claim 14, wherein the one or more computing devices are configured to generate an alert when the repair equipment, or parts thereof, left in the engine after the repair operations is detected.

17. The robotic assembly of claim 14, wherein the robotic assembly, or one of more parts associated therewith, is configured to move relative to the engine while capturing the information.

18. The robotic assembly of claim 1, wherein the repair equipment includes one or more of tooling, unused parts, wrappers and containers.

19. The robotic assembly of claim 1, wherein the one or more computing devices are configured to generate an alert when repair equipment, or parts thereof, left in the engine after the repair operations is detected.

20. The robotic assembly of claim 19, wherein the environmental capture device is configured to scan or view the engine at one or more locations in search of missing repair equipment, or parts thereof.

21. A robotic assembly configured to service an engine, wherein the robotic assembly comprises:

an environmental capture device in communication with one or more computing devices and configured to provide information associated with repair equipment in an environment near where the engine is disposed to the one or more computing devices, and

wherein the one or more computing devices are configured to use the information to compare an initial view of the repair equipment prior to a repair with a post view of the repair equipment after a repair operation.

22. The robotic assembly of claim 21, wherein the one or more computing devices are configured to use the information to inspect the engine before and after the repair operation associated with a service to check for the repair equipment, or parts thereof, left in the engine after the repair operation.