



ASX Announcement

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AL250, MCP and Defence Update

Highlights:

- **A3D has commenced intensive first stage testing of AL250 Printer sub assembly builds.**
- **Intensive engagement has continued to build and test A3D's suite of Multi Concurrent Printing algorithms for deployment within the AL250.**
- **Intensive marketing engagements have continued with defence customers, to sell the AL250 as an innovative high productivity 1500W printer, alongside demonstrating defence related parts for the defence sustainment industry.**

Aurora Labs Limited ("A3D" or "the Company") (ASX:A3D), is pleased to announce further details regarding the AL250 commercial printer technology project.

The AL250 build has advanced to a stage where printer sub-assembly components are now being tested for, duty cycle, validation, and robustness.

The integrated filter system is currently being tested and verified alongside the recirculation system of pumps and flow devices. This will ensure an optimised and robust filtration system which is suitable for highly efficient removal of printing generated fumes and that the system complies with best practice for ensuring a clean build chamber for high laser efficacy when melting powder during printing.

Tests have also continued with bi-directional recoating of powders integrated with new Aurora Labs MCP™ printing algorithms to print test componentry. This new algorithm improves the laser on-time, further increasing duty cycle and efficiencies of the printing system. Further testing will validate build cycle improvement times.

CEO Rebekah Letheby commented:

"This testing of the AL250 printer sub-assemblies puts the team in a strong position to continue to target the release of the AL250 machine in early 2024. We are pleased with the progress of our agile project team.

Our testing of new MCP algorithms in our prototype printer have been a good physical confirmation of the effort which we have consistently worked at over the last 3 months. In particular, this testing illustrates that we can compete against other machine makers¹ who now offer bidirectional printing capability. MCP has the advantage over this type of bi-directional printing as continuous multilayer concurrent printing increases production efficiency against single layer printing, not only in reducing time taken to print, but in the reduced operational costs of running the machine for a lengthy print thereby reducing the cost of printed parts."



Figure 1: A Snapshot of MCP Printing

Defence Industry Engagement

Aurora has been preparing further printed parts for engagement with Defence related customers. These intensive engagements build from relationships cemented at the recent International Maritime Exposition conference.

Printed parts and the use of additive manufacturing in the Defence industry will continue to be promoted to both large and small enterprises looking for the innovative solutions provided by additive manufacturing. Defence customers in particular, see a supply chain revolution with "print on demand" inventory with the ability to produce parts for sustainment and maintenance activities at defence bases and shipyards when and anywhere they require.

Further trials have also begun on A3D's gas turbine demonstrator part to demonstrate to Defence the flexibility of the printed component and the ability for the gas turbine's geometry to be quickly adapted to suit various potential deployable purposes such as propelling unmanned aerial vehicles or assisting with power generation within defence settings. The advantage of printed turbines over conventional style turbines are found in their ability to be printed as a simple part, largely in one piece, reducing complexity in manufacture and assembly. The turbine is lightweighted to reduce fuel consumption. It can also be printed in multiple materials, to ensure suitable high firing temperatures or fast load cycles for its lifetime dependant on the application.



Figure 2: Demonstration Gas Turbine, with Side Cutaway

Ends

Approved for release by the Company's Board of Directors.

For further information, please contact: Rebekah Letheby, Chief Executive Officer

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ABOUT AURORA LABS

Aurora Labs Limited ("the Company"), an industrial technology and innovation company that specialises in the development of 3D metal printers, powders, digital parts and their associated intellectual property.

Aurora Labs is listed on the Australian Securities Exchange (ASX: A3D)

FORWARD LOOKING STATEMENTS

This announcement contains forward-looking statements which incorporate an element of uncertainty or risk, such as 'intends', 'may', 'could', 'believes', 'estimates', 'targets' or 'expects'. These statements are based on an evaluation of current economic and operating conditions, as well as assumptions regarding future events.

These events are, as at the date of this announcement, expected to take place, but there cannot be any guarantee that such events will occur as anticipated or at all given that many of the events are outside Aurora's control.

Accordingly, Aurora and the directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur. For further information, please contact: enquiries@auroralabs3d.com

[1 Renishaw https://www.renishaw.com/en/new-renishaw-technology-achieves-up-to-50-reduction-in-additive-manufacturing-build-times--48455](https://www.renishaw.com/en/new-renishaw-technology-achieves-up-to-50-reduction-in-additive-manufacturing-build-times--48455)