UNIVERSITY OF LIVERPOOL

Mighty Tracker
-Assembly Trial III -

Maria Bazetto, Liam Boynton, Bilal Ganie, Ashley Greenall, Thomas Lee, Sven Wonsak

• Trial III - pick and place machine 04/11/2026

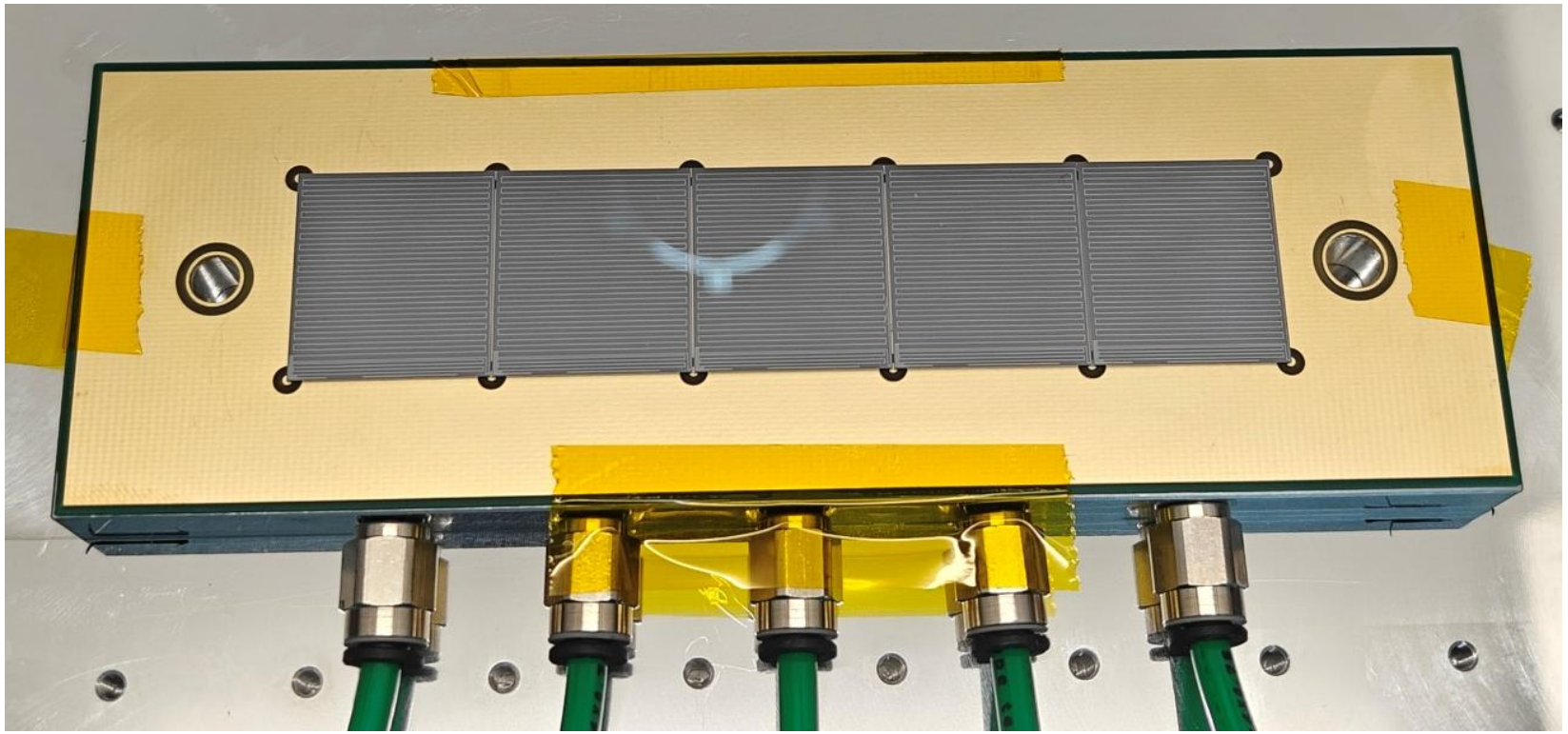
Target:

- Create new program, heater chip and other waffle pack
- Change the program to better control the chip gap; 50μm
- Test new glue Loctite SI 5145

Same: PCB jig, Pick-and-Place Machine
What changed: Heater Loader Silicon, Waffle Pack (filament 3D-printed)

- Heat loader chip; gap of ~100 µm

- Gap between chips ~100 µm



Credit: Ashley Greenall

•Chip 50µm gap trial

- Using chip dimensions measured with the Keyence to set the positions on PP for a target gap of 50 µm, the chips overlapped during the placement.
- Remeasured the chip dimensions with the SmartScope and compared both results.
- The SmartScope measurements agreed with the PP values, indicating that Keyence measurements were inaccurate.

• Next Steps

- 3D resin printer new waffle pack – In progress
- Change the PP heater chip program for a 50µm gap – tomorrow
- New glue Loctite SI 5145 – maybe tomorrow
- Create a program on SmartScope to measure the chips dimensions