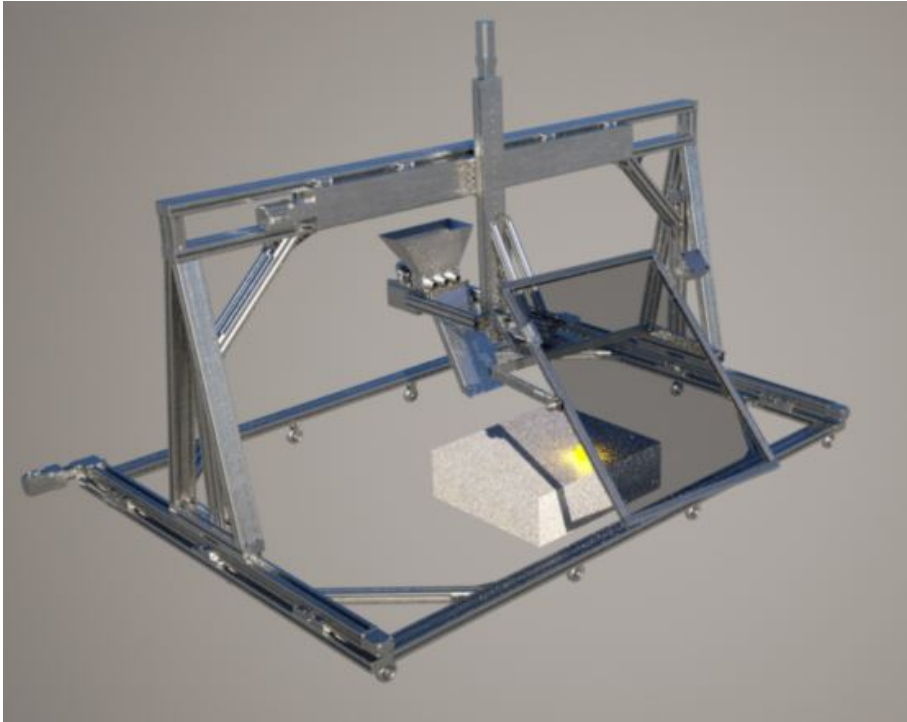


Robotic prototypes for the solar sintering of regolith on the lunar surface developed within the RegoLight project



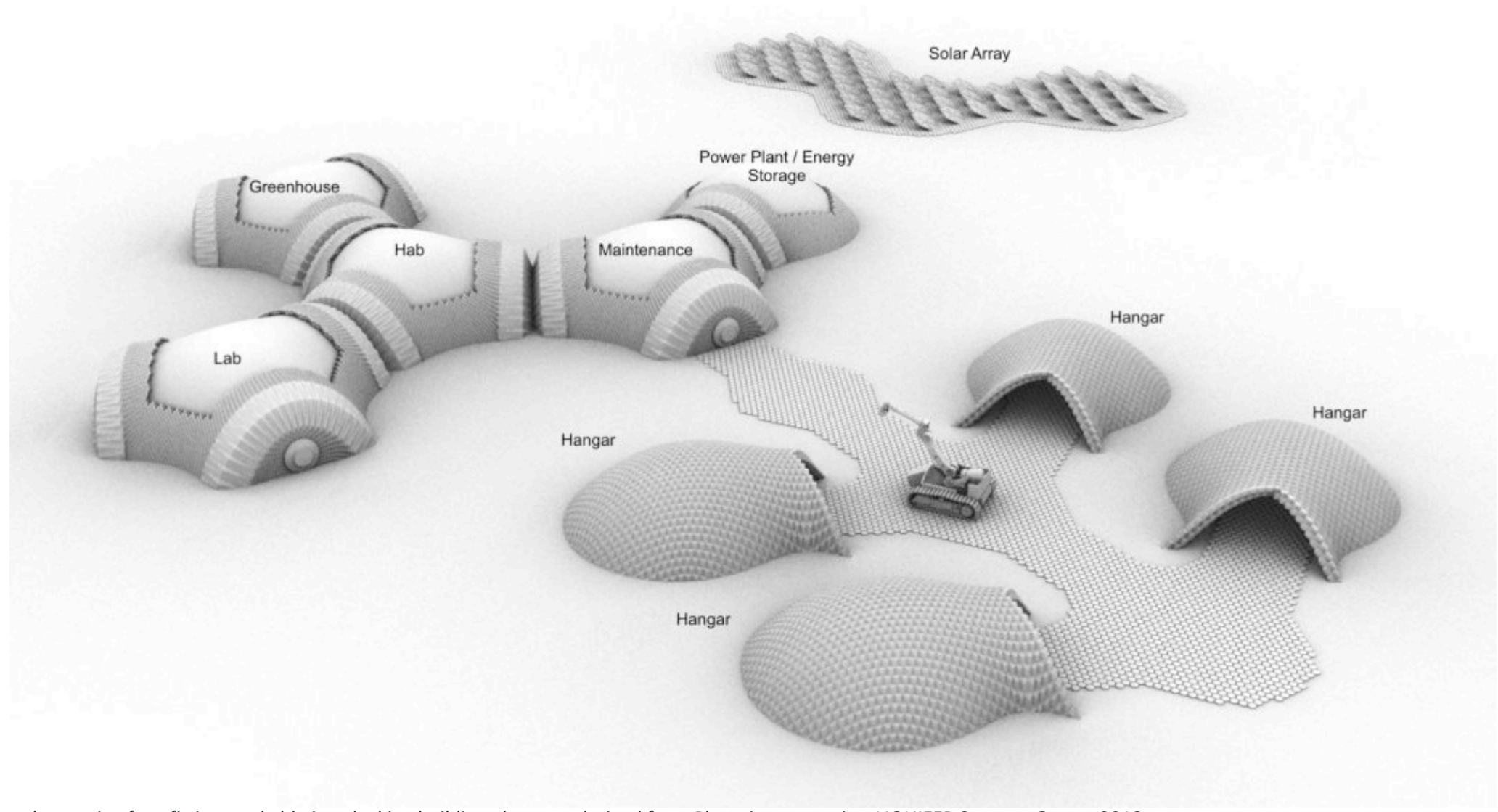
Diego A. Urbina, Space Applications Services



Funded by EU-Horizon 2020

Space Resources Round Table 2018, Golden, Colorado

Vision



credit: a Lunar base using formfitting stackable interlocking building elements derived from Platonic geometries, LIQUIFER Systems Group, 2018

Ambient printer

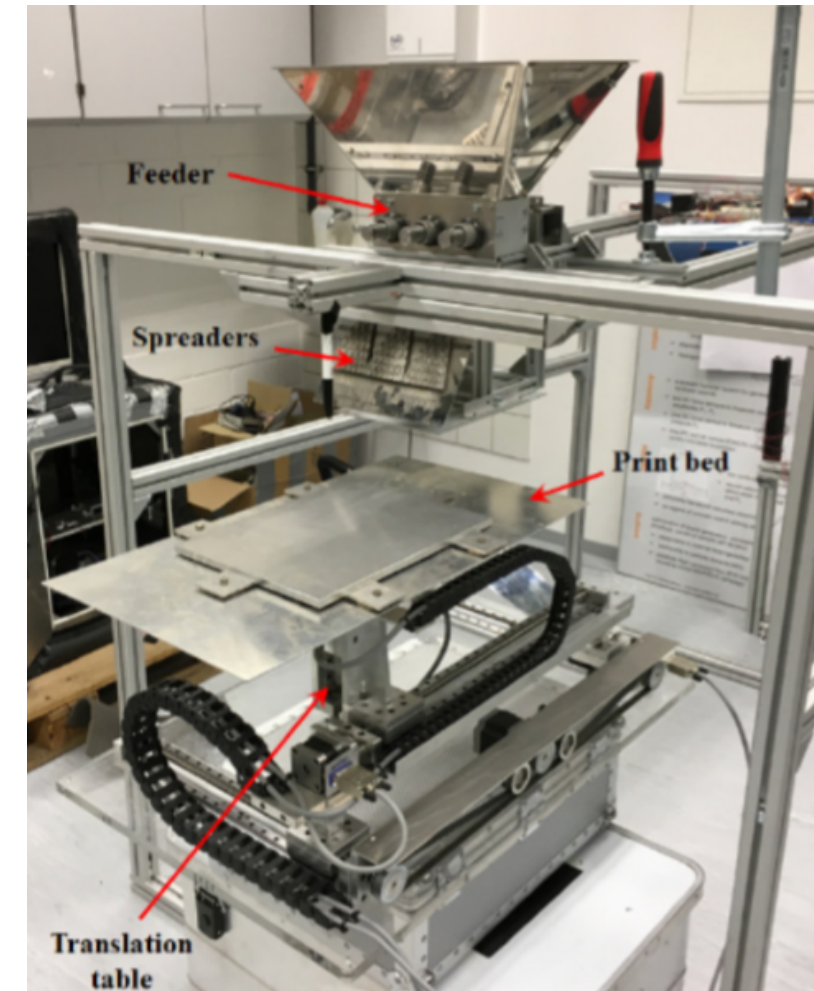
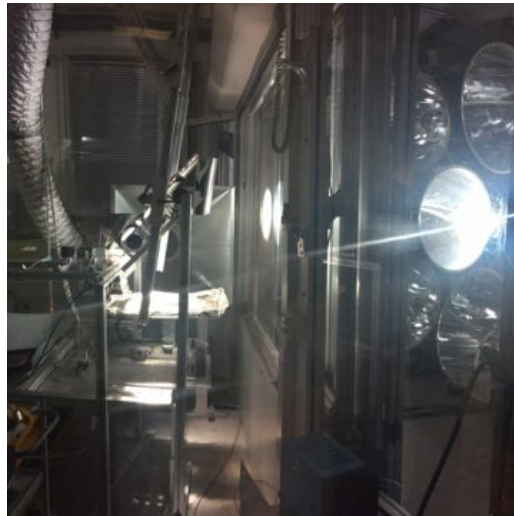
Ambient

Ambient, lab

Moving tray

.25 m x .15 m x
.1 m

Solar sintering
of samples
with fine
structure



Vacuum printer

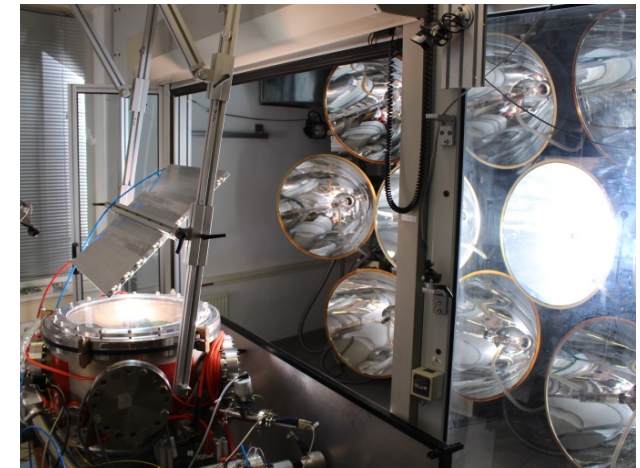
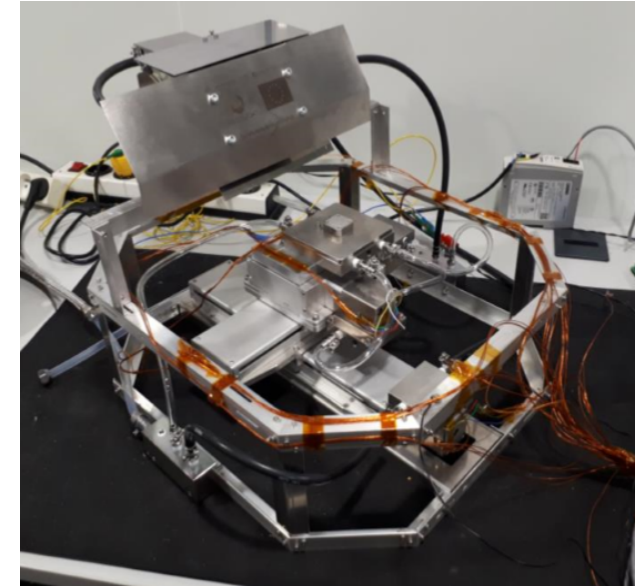
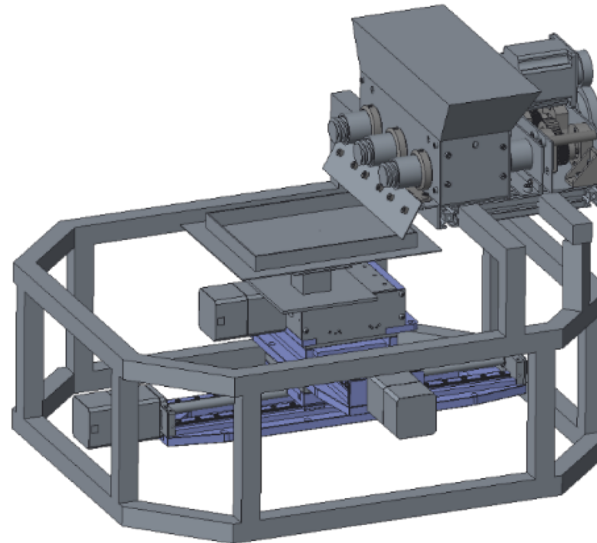
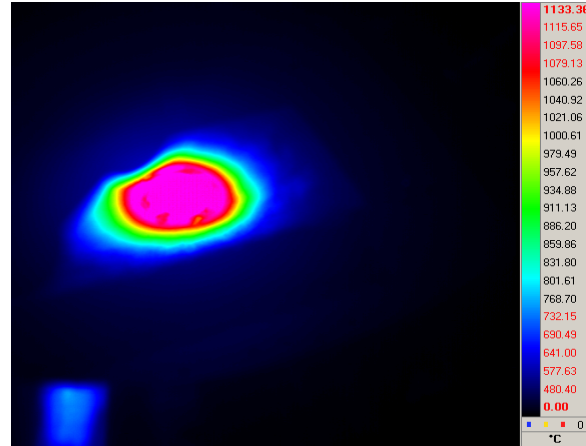
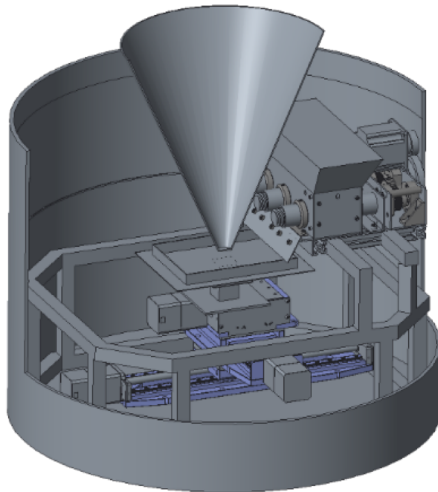
Vacuum

Vacuum, lab

Moving tray

.2 m x .1 m x .1 m

Test without convection



Mobile printing head

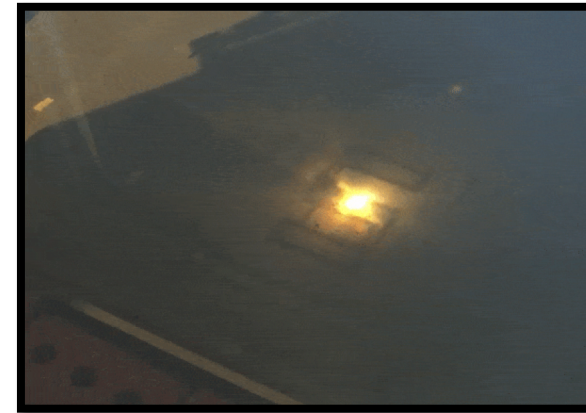
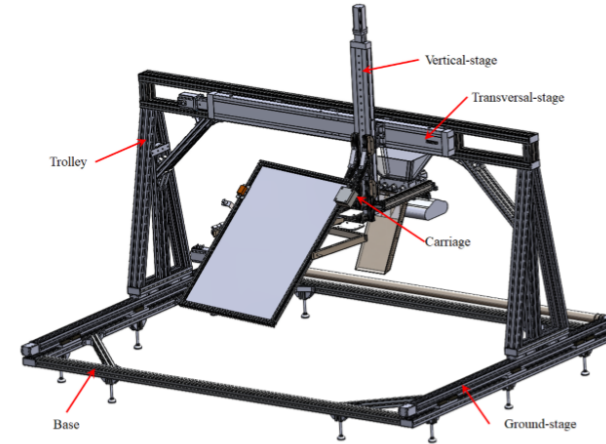
Mobile

Ambient,
outdoors

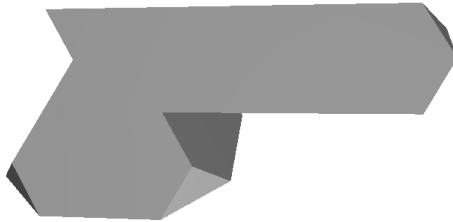
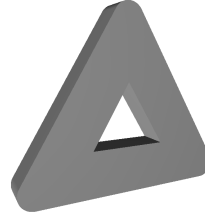
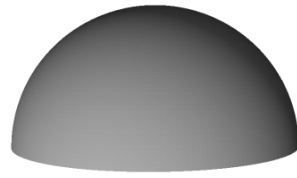
Moving
printing head
over fixed
surface

.9 m x .45 m x
.45 m

Representative
proof of
concept of
robotics



Some printed parts



WWW.REGOLIGHT.EU