

Melters - Selective LED Based Melting (SLEDM)

- Engineers at Graz University of Technolog developed a new metal powder additive manufacturing system that relies on **LED** instead of laser sources to **melt powder**.
- The LEDs are equipped with a **complex lens** system by which the diameter of the LED focus can be easily changed between **0.05** and **20mm** during the melting process. So larger volumes per unit of time can be melted without having to dispense with filigree internal structures, thus reducing the production time of components by a factor of 20 on average.
- The SLEDM 3D printer also uses a newly designed production plant that adds the components from top to bottom, component is exposed, the required amount of powder is reduced to a minimum and the necessary post-processing can be carried out during the printing process.
- Applications in sustainable mobility, production of components such as bipolar plates for fuel cells or components for battery systems.

