

3D concrete Printing Laboratory



Edgars Sm., Eduards St., Ralfs Sk., Maiks V., Peter Sh., Leonid Zh

The founding of the lab

- Lab started in 2021
- Founded by Māris Šinka, senior researcher at RTU
- Goal: research 3D concrete printing and sustainable building materials
- Created with help from SAKRET, a building materials company
- First lab of its kind in the Baltic region



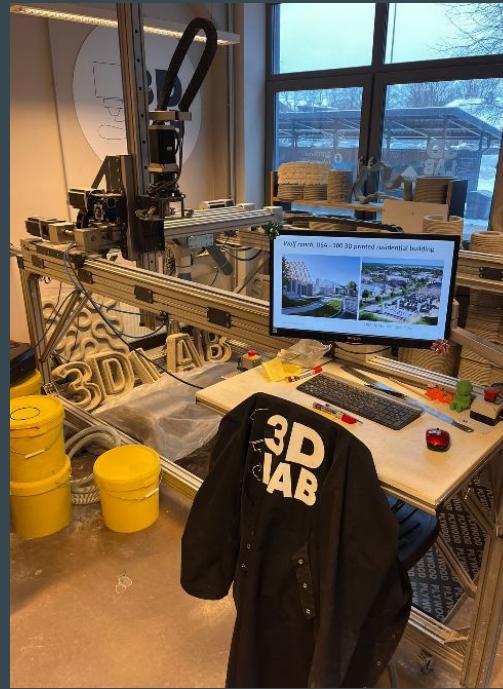
What the 3d concrete printing is?

- Building with layers:
- Faster and less waste:
- Flexible designs:



How it works and what they use?

3D Printing Machine



What they use?

- Cement
- Water



Result of the mix



How it works?



Final result?



Host



Jargon words used in Lab

- 3-point bending- a mechanical test used to measure how strong and stiff a material is when it's bent.
- Toolpath- The route the nozzle follows while printing.
- Calibration- Adjusting the machine so movements and extrusion are accurate.
- Print Speed- How fast the nozzle moves while printing.
- Curing- The process of keeping concrete moist so it gains strength.

Thank you for your attention