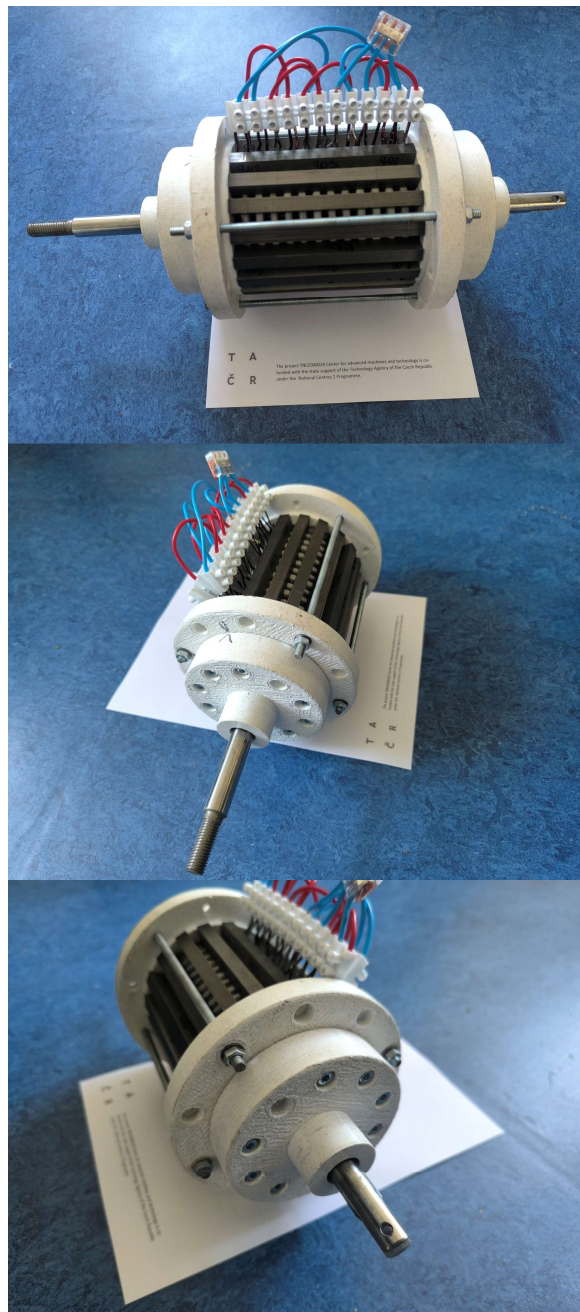


Funkční vzorek

Intra-row Weeding actuator technology demonstrator

TRL3,4



- ▶ In accordance with the valid methodology of the Office of the Government of the Czech Republic, a functional sample is applied.
- ▶ The functional sample was developed in direct connection with the implementation of project TN0200028 CAMAT.
- ▶ The functional sample is designed for the purpose of verifying the electromagnetic and thermal calculations of a high-speed, high-power linear actuator intended to drive hoes for an intra-row cultivating machine designed for sustainable agriculture.
- ▶ The prototype was manufactured partly using additive manufacturing technologies.
- ▶ Prototype parameters: achieved force of 500 N at a stroke of 12.5 mm in the axial direction to one side and a frequency of 8 Hz. Overload operation is possible at an oscillation frequency of 28 Hz with reduced output force.
- ▶ External dimensions of the linear machine prototype: length 200 mm, width (outer diameter of the bearing end shield of the frame) 190 mm.
- ▶ Cooling system: passive, based on natural convection, with the possibility of conversion to forced ram-air cooling.

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