



Agricultural Journals

Research in

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Res. Agr. Eng.

**Hůla P., Šindelář R.,
Trinkl A.:**

**Verification of
applicability of ABB**

robots for trans-planting seedlings in greenhouses

Res. Agr. Eng., 54 (2008): 155-162

The article deals with the verification of applicability of different types of ABB industrial robots for trans-planting seedlings. Initial hypothesis was formulated at the beginning namely that the robots with full rotary series and parallel kinematical structure can be employed in the operation of trans-planting seedlings. Testing was performed on real types of robots IRB 1400, IRB 140T and IRB 140B, and using model application. The robot IRB 340 was tested in virtual simulation only. Based on the measurements, it was found out that all real robots tested are able to perform the operation of seedlings trans-planting involving 36 plants with the cycle duration below 2.7 min and at 100% success rate. Within the given range of the movement velocity no statistically significant differences in the cycle duration or in the number of wrongly trans-planted

seedlings were found between different