

Innovative Weeding Technology from Europe

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Vol. 14, Issue 05, Published 3/8/2023

With the advent of low-cost computing systems that can identify and locating crop and weed plants in real-time, there's been an explosion in the interest, investment and development of technologies for robotic/automated weed control. A quick internet search will reveal over 50 companies or university research groups working in this space. You are probably familiar with many of these as they are domestically based and have been discussed in previous articles, but there are also numerous efforts being made in Europe that may be of interest. One of these is highlighted here. In future articles, I'll discuss additional technologies.

Andela Techniek & Innovatie¹ is a Dutch company who appears to be making good progress with an innovative robotic weeding machine (Fig. 1). The solar powered device spans 29.5 feet and is equipped with 12 robotic delta arms for removing in-row weeds (Fig. 2). A camera-based imaging system is used to differentiate crop plants from weeds and provide coordinates of targeted weeds to the delta arms. Each delta arm is equipped with an end-effector that uses heat to kill the weed when it comes into contact with it. A company video showing the device operating in carrot and onion crops can be found by clicking [here](#) or on the images below.

Stay tuned!

¹ Reference to a product or company is for specific information only and does not endorse or recommend that product or company to the exclusion of others that may be suitable.



Fig. 1. Andela Techniek & Innovatie¹ solar powered robotic weeding machine. (Photo credits: Andela Techniek & Innovatie)



Fig. 2. Delta arms and end effector of Andela Techniek & Innovatie¹ robotic weeding machine. (Photo credits: Andela Techniek & Innovatie)