

# FarmDroid field robot

## Main results / outcomes

- The FarmDroid FD20 is an electric (solar panel) driven field robot designed to assist farmers and growers in reducing costs associated with sowing and weeding crops in a CO<sub>2</sub> neutral and ecological manner.
- This automatic lightweight field robot automates sowing and weed removal on farmland, operating without the need for human intervention.
- GPS technology enables precise positioning of every individual seed sowed by the FD20, eliminating the dependence on cameras for crop or weed recognition.
- The robot ensures precise seed placement and remembers the location of each seed, allowing for accurate weed control around budding plants during weeding operations.

## Practical recommendations

- Organic farming areas are expanding annually, and there is a growing emphasis on reducing pesticide use in conventional agriculture, leading to increased attention on mechanical weed control.
- FarmDroid addresses this need by precisely sowing crops and knowing the position of each seed, enabling targeted weed removal where necessary while avoiding areas where it's unnecessary.
- The FarmDroid FD20 operates fully autonomously and doesn't require constant monitoring. In case of any stops or deviations, it halts automatically and notifies the farmer via email.



**Figure 1 and 2:** FarmDroid electrically powered field robot with solar panels (Photo: FarmDroid)

## Further information

<https://farmdroid.dk/en/welcome/>

<https://www.bing.com/videos/riverview/relatedvideo?q=farmdroid&mid=E818BA9E064D4564EEEE0E818BA9E064D4564EEEE0>

## About this abstract

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**AgroFossilFree** is a H2020 multi-actor project that will evaluate the current status in EU agriculture regarding energy use and assess existing needs, allowing farmers to optimize agricultural production through more efficient energy use and reduced GHG emissions, resulting in economic, agronomic and environmental benefits. AgroFossilFree will create a framework under which critical stakeholders will cooperate to evaluate and promote the currently available Fossil-Energy-Free Technologies and Strategies (FEFTS) in EU agriculture. The project is running from October 2020 to September 2023.

**Website:** [www.agrofossilfree.eu](http://www.agrofossilfree.eu)



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