

FarmDroid field robot

Main results / outcomes

FarmDroid FD20 is an electric (solar panel) driven field robot that helps farmers and growers reduce costs of sowing and weeding crops while also doing it in a CO₂ neutral and ecological way. The "droid" is an automatic light weight field robot that automates sowing and weed removal on farmland. GPS technology is used to know the position of every individual sowed seed and therefore, FD20 does not depend on a camera for crop or weed recognition. The seed is placed very precisely, and the robot remembers where the seed is located, and when weed control is performed, it weeds precisely around the budding plant.

Practical recommendations

Areas for organic farming are growing year by year, and at the same time the focus on reducing pesticides within conventional agriculture is increasing. There is therefore an increasing focus on the need for mechanical weed control in agriculture. FarmDroid sows the crops and knows the position of each seed, and therefore knows exactly where it must clean - and more importantly where it must not!. It operates fully automatically and does not need to be monitored. FarmDroid FD20 stops itself and sends the farmer an e-mail in case of any stops or deviations.



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=E818BA9E064D4564EEE0E818BA9E064D4564EEE0>

About this abstract

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Date: March 2022

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



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement ID 101000496

FarmDroid elektrisk markrobot med solpaneler

Resultater

FarmDroid FD20 er en elektrisk (solpanel) drevet markrobot, der hjælper landmænd ogavlere med at reducere omkostninger til at så og luge afgrøder, samtidig med at det gøres på en CO₂-neutral måde. "Droiden" er en letvægts-markrobot, der automatiserer såning og fjernelse af ukrudt på landbrugsjord. GPS-teknologi bruges til at kende positionen af hvert enkelt sået frø, og derfor er FD20 ikke afhængig af et kamera til afgrøde- eller ukrudtsgenkendelse. Frøet placeres meget præcist, og robotten husker, hvor frøet er placeret, og når der udføres ukrudtsbekämpelse, luger den præcist omkring den spirende plante.

Praksis og anbefalinger

Arealer til økologisk landbrug vækster år for år, og samtidig øges fokus på reducering af sprøjtemidler indenfor konventionelt landbrug. Der er derfor et stadig større fokus på behovet for mekanisk ukrudtsbekämpelse i landbruget. FarmDroid såer afgrøderne og kender positionen på hvert frø, og ved derfor ved præcis hvor den må rengøre – og endnu vigtigere hvor den ikke må!. Den opererer fuldautomatisk, og skal ikke overvåges. FarmDroid FD20 stopper selv, og sender landmanden en e-mail ved eventuelle stop eller afvigelser.



Figur 1 og 2: FarmDroid elektrisk drevet markrobot med solpaneler
(Foto: FarmDroid)

Yderlig information

<https://www.bing.com/videos/riverview/relatedvideo?q=farmdroid&mid=E818BA9E064D4564EEE0E818BA9E064D4564EEE0info@farmdroid.dk>

Om dette abstrakt

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Dato: March 2022

AgroFossilFree er et EU Horizon 2020 projekt, der skal evaluere den nuværende status i EU's landbrug med hensyn til energiforbrug og vurdere eksisterende behov, således at landmændene får mulighed for at optimere landbrugsproduktionen gennem mere effektiv energianvendelse og reducerede drivhusgasemissioner. Dette vil resulterer i økonomiske, agronomiske og miljømæssige fordele. AgroFossilFree vil skabe en ramme, hvorunder centrale interesser kan samarbejde om at evaluere og fremme de aktuelt tilgængelige fossil-frie energiteknologier og -strategier (FEFTS) indenfor EU's landbrug. Projektet løber fra oktober 2020 til september 2023.

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