



Raina Robotech

Product Catalogue

Roboticized Agriculture, Sustainably.

Last Update: 2026.09.20

Company Vision

At **Raina Robotech**, we believe that robotic and automation technology is a key to sustainable agriculture and food production. Growing plants can be labor-intensive and time consuming. We design and build automated machines that can help farmers from starting seed to plant care and harvesting....from soil mixer, pot or bag filler, transplanter, grass cutter and harvester.

Our products are all electric, which don't generate air pollution or noise pollution, they are easy to use and reliable. These machines can be customized for vegetable growers, ornamental plants nursery and fruit orchards.

- Easier and Automated Process for Soiled-based Agriculture
- Smart and Efficient Electrical Powered Agricultural Equipment

Who are we?

***Raina** /râj na:/ ไร้ณา is a Thai word that means field and farmland*

***Robotech** represents robotic and automation technology including development of smart vehicles and AI in machines (physical AI)*

*Established in 2022 by Dr.Thavida Maneewarn who is a former researcher and educator at Institute of Field robotics (FIBO), KMUTT for over 20 years. **Raina Robotech** is a Thai-based robotic and automation company specializing in field mobile robots and automation technology for agriculture. Our uniqueness derives from the combination of hands-on expertise in field robotics and innovative technology in computer vision, AI and robotics, which can be applied to solve real problems in agriculture.*

Raina Robotech and Raina Robofarm

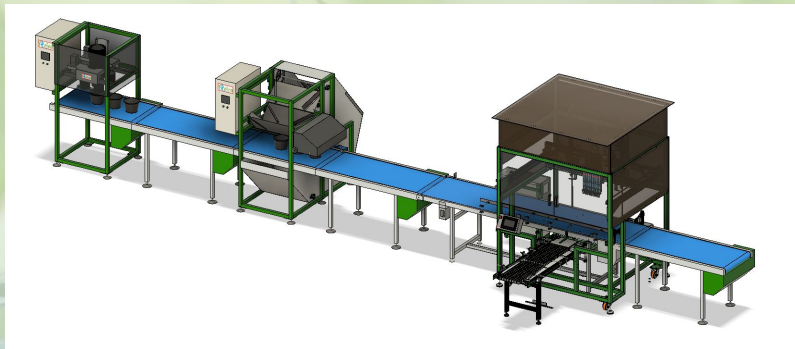


Why choose Raina Robotech?

- We are committed to providing environmental-friendly machines for agriculture ranged from electrical farm vehicles to automation system for vegetable and plant production.
- Our solutions are designed with an ESG mindset that will provide the greatest cost-benefit for customers.
- Our team of robotics & automation engineers had full stack experience in hardware and software integration with wide range of product portfolio.
- We provide professional technical support, quality guaranteed after-sales services and long term relationships with customers.

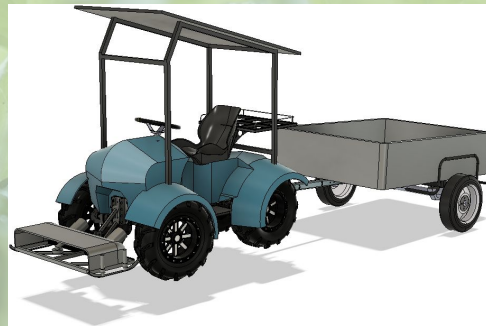
Raina Robotech Product Lines Overview

Raina-PLANTER



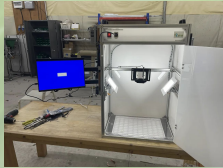
Raina-PLANTER production line is a customizable product for medium to high capacity plant cultivation processes. We can customize the plant production line based on your specific requirements including soil/media filler process, seeding, watering, transplanting, harvesting and inspecting.

Raina-ROVER

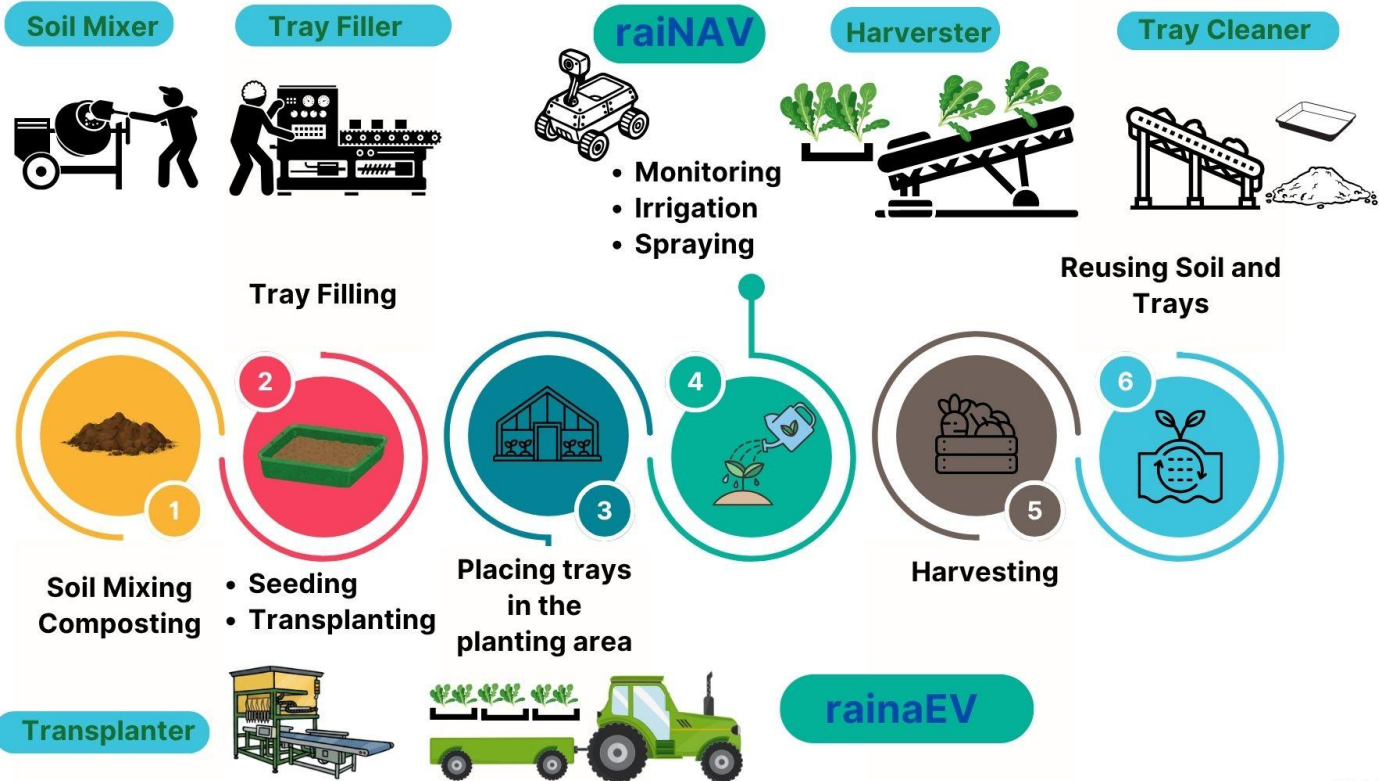


Raina-ROVERS are all-electric ground vehicles and attachments for orchard farming including mowing, fertilizing and plant monitoring. These vehicles are designed for all-terrain environment, to be easy to use and transport. They can be customized into different modes: human-driven, remote controlled and autonomous navigation.

Raina's Planter Product Lines

Soil Preparation	Planting	Harvesting	R&D
Soil Mixer 	Seeder 	Microgreen Harvester 	Planter Vision 
Soil Filler 	Transplanter 		Planter Roll 
Conveyor 			

Raina's Planter Solutions for Circular Vegetable Production



Raina's Planter Solutions

Microgreen
producer



Vegetable
growers



Plant
nurseries



PKE02 Soil Mixer



Model : PKE-02

Capacity : 300L

Power source : VAC 220v 1 phase, motor 0.75kw

Basic Functions

1. Support bi-directional operation
2. Overload protection and fault notification
3. Ready to be connected with other machines in an automation line

PBC-01 Soil Filler



Model : PBC-01

Hopper Capacity : 300L

Power source : VAC 220v 1 phase

Specifications: up to 30 ltr/min

Basic Functions

1. Can be used to fill planting pots and trays
2. Provide continuous operation by a secondary conveyor belt
3. Excess grow media will be collected back into the system
4. Overload protection and fault notification
5. Ready to be connected with other machines in an automation line

PCN-200/250 Angled Media Conveyor

Model : PCN -200/250

Dimension width 1 m, length 2 or 2.7 m, height 2 m

Power source : VAC 220V 1 phase

Basic function

1. Transport soil, grow media and etc.
2. Angle can be adjusted
3. Adjustable speed and direction
4. Overload protection and fault notification
5. Easy to move around by wheels and trailer hitch



PGO-01 Transplanter



Model : PGO-01 (Raina Green Oak 01)

Capacity : 1900 plants / hr

Power source : =VAC 220V 1 phase

Basic functions

1. Transplant vegetable seedlings from seed plugs to grow tray
2. Conveyors for seed plugs and grow tray
3. Online reporting system
4. Emergency stop and system fault notification
5. Adjustable 3D target position

Customer case study

Client: OKJ

Problem: Transplanting vegetable seedling is a labor intensive process which limits the speed of vegetables production.

Raina's solution: Greenoak transplanter can be automated and reduces number of workers in this process by 50%



PTO-01 Handheld Seeder

MP-01 Plate Seeder



MS-01 Single Roller Seeder



PSF-01 Microgreen Harvester



Model : PSF-01 (Planter Sunflower 01)

Capacity : 360 trays / hr

Power source : VAC 220V 1 phase

Basic features

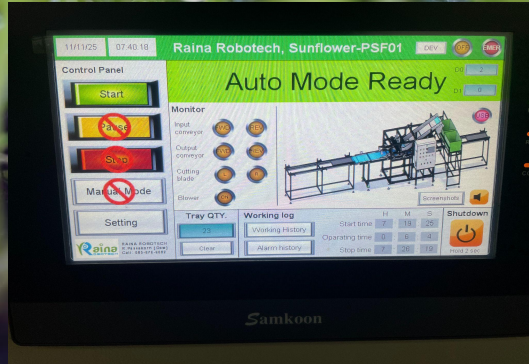
1. Incoming conveyors
2. Cutting module with sharp blades and built-in blade sharpener
3. Adjustable cutting height
4. Outgoing microgreen collector module
5. Finished tray output module
6. HMI and Electric control box

Customer case study

Client: OKJ

Problem: Microgreen harvesting is labor intensive, long hours of operation and require skilled worker to ensure consistent cutting quality

Raina's solution: PSF-01 is a conveyor based harvesting machine designed for faster operation which provides consistent cutting quality and no-bruising harvest



PSF-02 Microgreen Harvester



Model : PSF-02 (Planter Sunflower 02)

Capacity : 15-20 seconds / tray

Power source : VAC 220V 1 phase

Basic functions

1. 2-in-1 cutting and collecting system
2. Small footprint and lower cost for small farms
3. Ensure consistent cutting quality and fast operation

Customer case study

Client: Suan Tid Pom

Problem: Microgreen harvesting is labor intensive, long hours of operation and require skilled worker to ensure consistent cutting quality

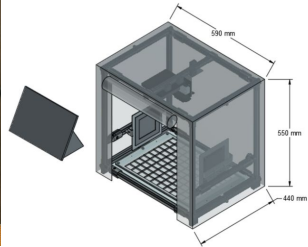
Raina's solution:
PSF-02 is a small sized harvester designed for small farms which reduces harvesting time and ensures high quality microgreen harvest



PCC-02 Portable Plant-AI Camera Box

PORTABLE PLANT-AI CAMERA BOX

Model: PPC-02



Model : PCC-02

Dimension: 590x550x440 mm

Weight: 11 kg

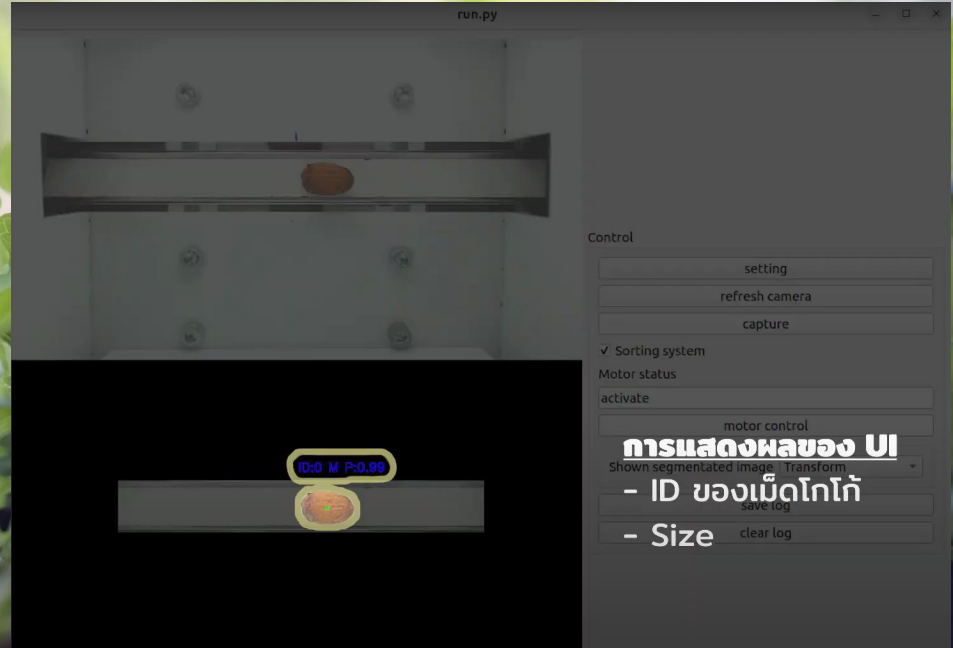
Power: 220 VAC

Basic functions

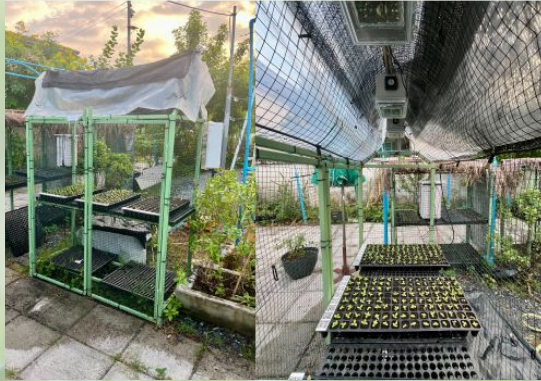
1. Built-in camera and computing unit, support AI training and deployment
2. Lighting control for high quality image data collection
3. Lightweight and portable for field operations
4. Can be used with seeds, seedlings, leaves, fruits and plant specimens

Client: Chulalongkorn University

R&D: Cocoa beans grading system

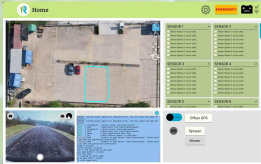
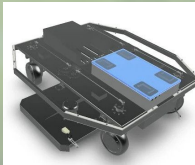


R&D: Seedling Germination Visual Detection System



[Source] Punnapat Getgaew, PLANTER VISION MODULE FOR INSPECTING AUTOMATED VEGETABLE PLANTING SYSTEM, B.Eng, Thesis KMUTT 2024

Rover Product Lines

Multi-purpose EV	Implements	RaiNav	R&D
RainaEV 	Mower Deck 	GPS-based navigation 	Ladybug 
DumperEV 	Fertilizer Spreader & Sprayer 	Lidar-based navigation 	Leafsheep 
	Conveyor 		

Raina EV: Fruit orchards and plantations



Mayongchid orchard



Durian orchard



Palm Oil Plantation

Raina EV: Landscaping and Construction work



Airport and grass turf



Solar Farm



Construction site

REV-01 Raina EV: RE-Volt



Specification

Dimension WxLxH (exterior)	1.4m x 1.9m x 1.35m (Fit in a 4 door pickup truck bed)
Drive motor	Brushless DC 3 kw
Drive system	Rear wheel drive
Brake system	4 disc brake (independent L/R braking)
Weight (no battery)	320 kg
Battery Weight (per unit)	17 kg
Payload capacity	200 kg
Towing capacity (unbrake)	750 kg
Swappable Battery	L LithiumLFP 72V 50 Ah (~ 3.6 kWh/per unit)
Charging (Kw)	0.87 kW(87.6V, 10 A)
Charging time	4-5 hr
Charging system	AC adapter 220VAC (household)
Accessories	• 12 VDC Electric winch • Adjustable seat • Safety bar • External DC socket

RED-01 Dumper EV



Client: STECON

Specification

Dimension WxLxH (exterior)	1.72m x 3.0m x 1.46m
Weight	750 kg
Drive motor	Brushless DC 10 kw
Drive system	Rear wheel drive
Brake system	4 disc brake
Battery	Lithium 72V 100AH

RPG-series Electric Mower Deck



RPG-02



RPG-03

Model : **RPG-02**

Specifications

- Electronically control cutting speed (1000-4000 rpm) and cutting height (2-10 cm)
- BLDC 2500 w
- Cutting width 110 cm
- Blade diameter 14-17 inch
- 3 Blade system
- WxLxH 100x120x50 cm
- Weight 52 kg
- Battery LithiumLFP 72V 50 Ah (~ 3.6 kWh/per unit)

PCN-200/250 Angled Media Conveyor

Model : PCN -200/250-VDC

Dimension width 1 m, length 2 or 2.7 m, height 2 m

Power source : 72VDC

Basic function

1. Easy to move around by wheels and trailer hitch
2. Transport soil, grow media and etc.
3. Angle can be adjusted
4. Adjustable speed and direction
5. Overload protection and fault notification



RES-01 Electric Sprayer

Model : PES -01

Capacity: 47.5 ltr x2

Power source : 72VDC

Basic function

1. Powerful orchard spraying
2. Easy to install



R&D: FSM-02 Smart Fertilizer Spreader



Model : FSM-02

Power source : 48VDC

Basic function

1. Apply **four** types of fertilizer simultaneously with accurate measurement
2. Automated trees detection and adjustable speed spreader disk

Collaboration with

KMITL
พระจอมเกล้าลาดกระบัง

King Mongkut's Institute of Technology
Landkrabang (KMITL)

Case study: Palm oil plantation



FSM-02 Smart Fertilizer Spreader



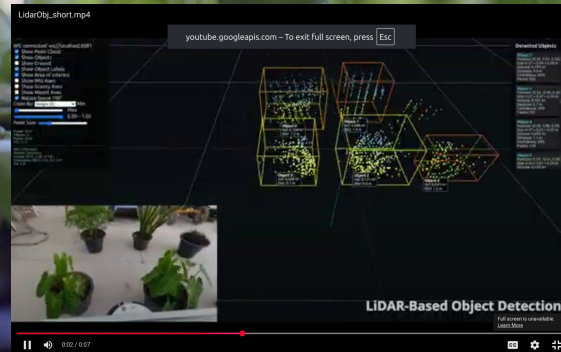
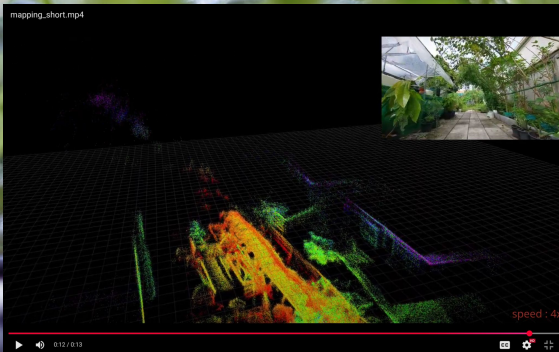
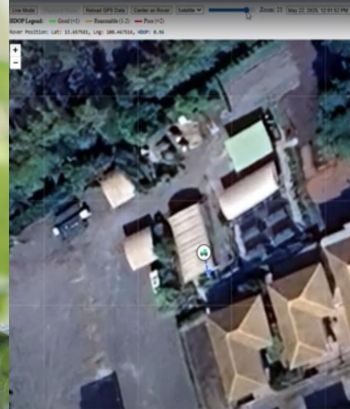
REV-01 EV with RPG-02 Mower Deck

Rover Robotics Line



RaiNAV Navigation Software

- Map-based autonomous system
- Web-based online rover's data display and playback system
- Lidar-based crop row tracking
- Human following system
- 3D lidar mapping and object detection



Ladybug: agricultural mobile robot



Model : Ladybug

Dimension: 500 mm x 600mm x 500 mm

Basic functions

1. All terrain robot platform
2. AWD with zero-radius turning
3. Small footprint
4. Autonomous navigation
5. Designed for greenhouse and plant nurseries
6. Built-in camera and computing unit
7. Spraying, Fertilizing applicator, Data collection

Contact us

Address

2/2 Soi Anamai Ngam Charoen
25 Yaek 2-4, Tha Kham, Bang
Khun Thian, Bangkok 10150
THAILAND

Tel. +(66)65-414-5572

Stay connect with us

<https://www.facebook.com/rainarobotech>

<https://www.rainarobotech.com>

<https://www.youtube.com/@rainarobotech>



Roboticize your agricultural needs.

Facebook



Website



Line@



www.rainarobotech.com

