REAL CARBON CAPTURE MACHINE

RCCM – Real Carbon Capture Machine v.3.0 (*forest*)

RCCM – Real Carbon Capture Machine v.4.0 **autonomous** (*eucalyptus*)

iPlantforest and you?

ABOUT US

The iPlantForest Group brings together companies with the objective of reforesting and foresting in an economically self-sustainable manner, on an industrial scale using technologies from industry 4.0 and Smart Agriculture developed by the group to make these processes more efficient and cheaper with maximum financial results.

The Group brings together disruptive companies, which among other solutions have developed a modern management system that allows them to track everything that happens in the group, with all the geoprocessed information.

The Group has been executing afforestation and reforestation projects in the state of Roraima, since 2014.

We created the fastest and most efficient forest planting machine, capable of automatically planting 3,600 seedlings / hour in the current version, without interruption for refilling.

HISTORY

The history of the RCCM (Real Carbon Capture Machine) begins with the need to plant forest at a speed that allows the planting of 1 trillion trees (native / exotic) with quality and low cost.

Using RCCM technology, we help combat climate change, reduce CO2 emissions, comply with the Paris Agreement, and help the world to plant trees in any location.

The largest Brazilian forest planting company, plants an average of 300 million trees per year (200 thousand ha / year with 1,600 trees / ha on average). At this speed, we will comply with the Paris agreement in 60 years and we have only 10 years to do so.

We want to change the nefarious relationship between deforestation and reforestation, allowing more to be planted than cut today.

RCCM is the solution for reforestation on a Global scale.

Maquina 1

Maquina 2


Maquina 3

INTERNATIONAL CREDIBILITY

iPlantForest no Globo Rural

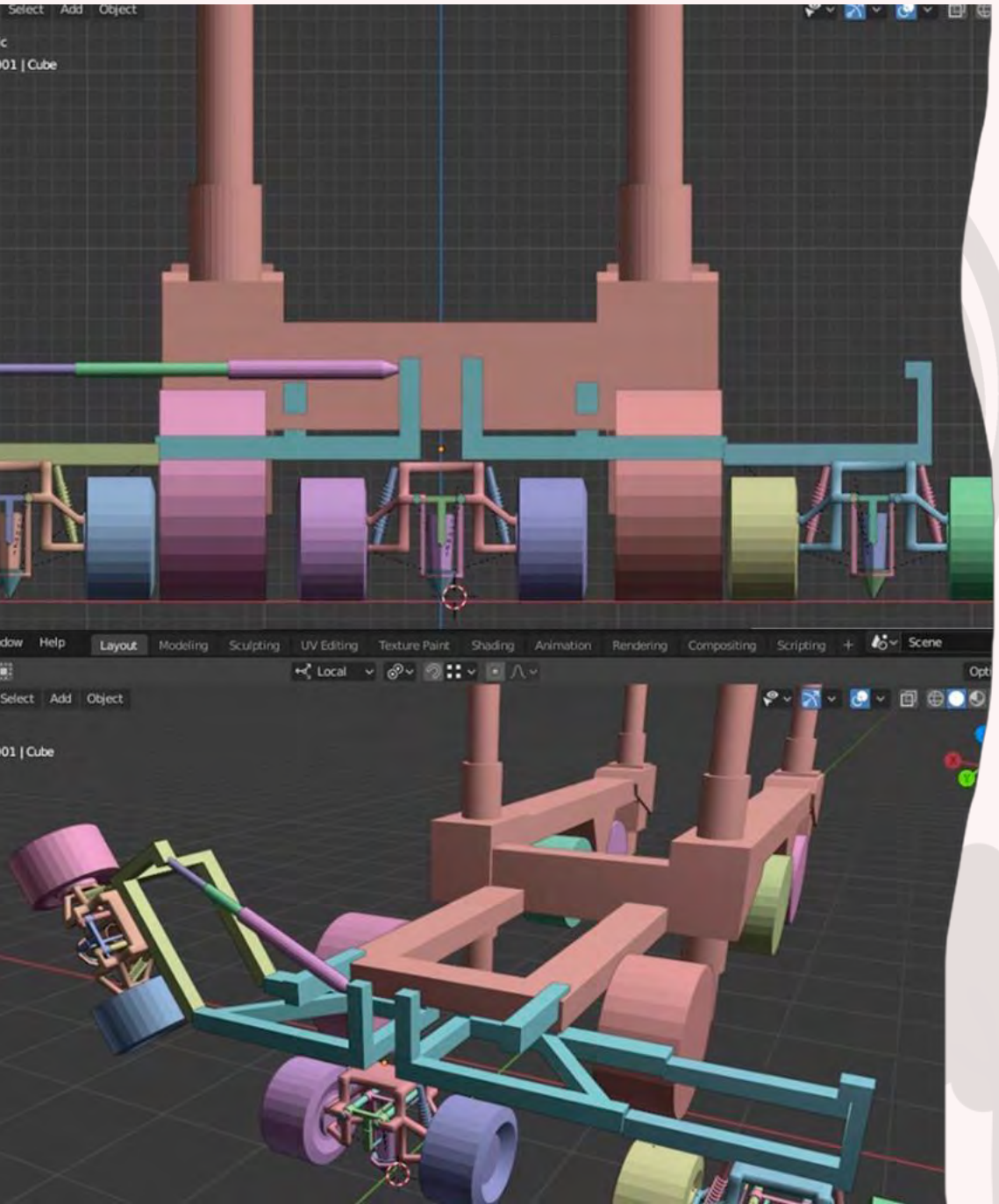
iPlantForest • 16 mil visualizações • há 1 mês

Reportagem especial do Globo Rural sobre plantio de mogno africano da nossa consorciada Mahogany Roraima. A matéria ...

https://mahoganyroraima.com.br/news/

Planforest and you?

REAL CARBON CAPTURE MACHINE



ABOUT US

Founders of this project, Marcello Guimarães and Eduardo Guimarães are entrepreneurs in the technology sector with 36 years of experience in developing innovative solutions.

They created the best-selling software in the history of computing in Brazil, Visual Kit 5. They published 11 books, all with sales exceeding 30 thousand copies (each), true technical bestsellers in the Brazilian publishing market.

In 2003 they created the first mobile software store, the first social network based on live videos directly from the cell phone to the web, ten years before the tool appeared on Facebook, and several other innovative and successful products.

Because of this professional profile, it was possible for the founders of iPlantForest to organize and optimize in an innovative way all the activities of the consortium. Its afforestation and reforestation project is based on “industrial 4.0 / Smart Agriculture” and is absolutely disruptive.

ABOUT US

bcyou.com

iPlantforest

MAHOGANY RORAIMA

MAHOGANY RORAIMA

A.I.QUIMIST
Artificial Intelligence Solutions

REAL CARBON CAPTURE MACHINE

kit5 racing

REF
REFORESTCOIN

RCCM

REAL CARBON CAPTURE MACHINE

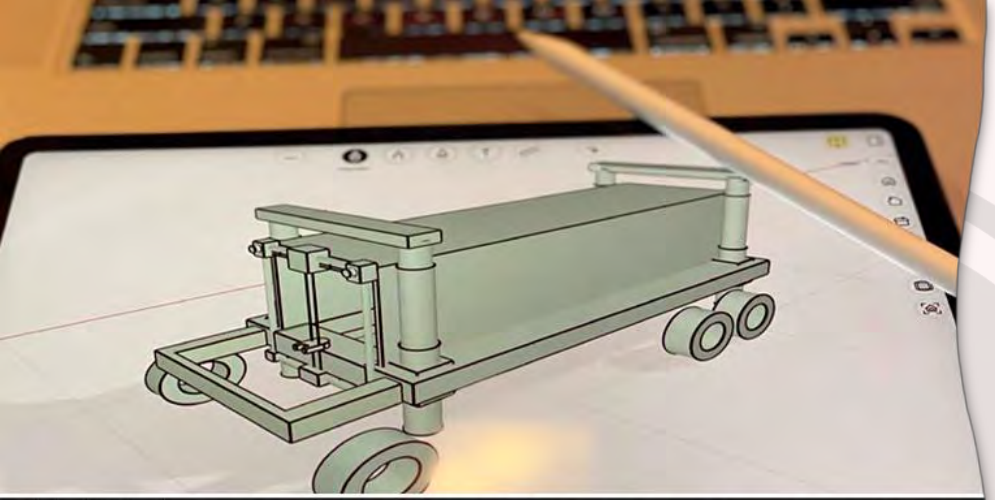
CO2 REDUCTION

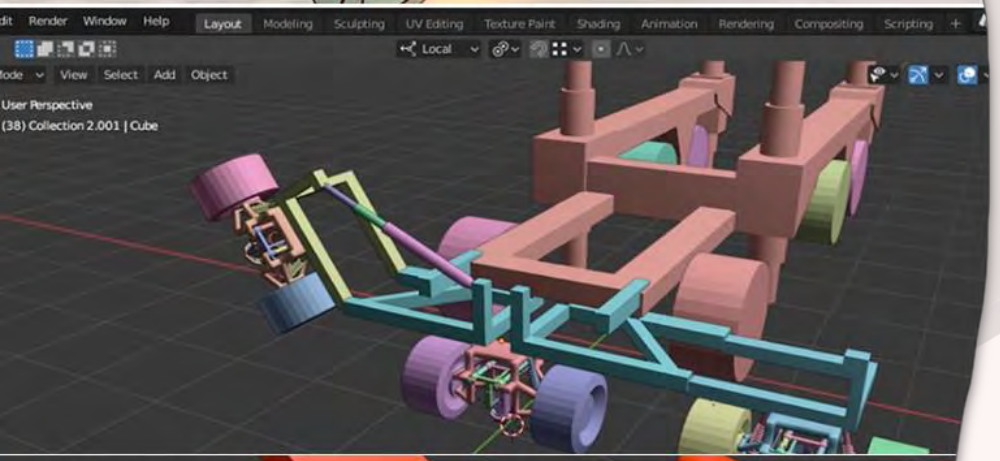
CO2 reduction projects (greenhouse gas emissions) can be based on the preservation of native forest or the recovery of degraded areas. Preserving is very important, but we cannot let the deforested areas desert, and to solve this problem, we created the forest planting machine.

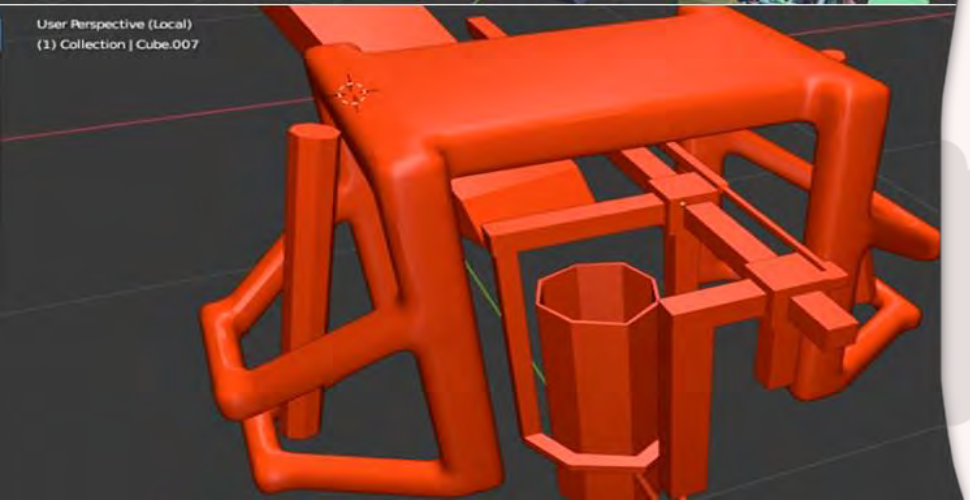
As important as preserving what remains of the forest is recovering the millions of hectares deforested or burned. But the action of reforesting is so complex and time-consuming, that little is seen of any concrete initiative in this direction.

For this reason, we consider it so important to invest in industrial solutions for reforestation and we did it.

We need to recover the forest base that has been deforested in recent years, to help, in fact, fight the greenhouse effect. More trees planted means less CO2 in the atmosphere and more wood being produced.







REVOLUTIONARY
PLANTING SYSTEM

The next RCCM version 4.0 (Forest Planting Machine) will plant 3 seedlings per second (forestry), that is, 10,800 trees per hour, 216,000 seedlings per day, in an area of 480 linear km (3 lines per second), at a speed up to 8 km / h.

The RCCM is a “Industry 4.0 / Smart Agriculture” machine, which uses Artificial Intelligence to geoprocessing, in order to automatically generate the planting map indicating where each seedling was planted (exact GPS position), in order to allow forest management with high technology.

The forest planting machine can actually be considered as a 100% autonomous planting robot. It selects seedlings (a single species), moves and plants without any human interference.

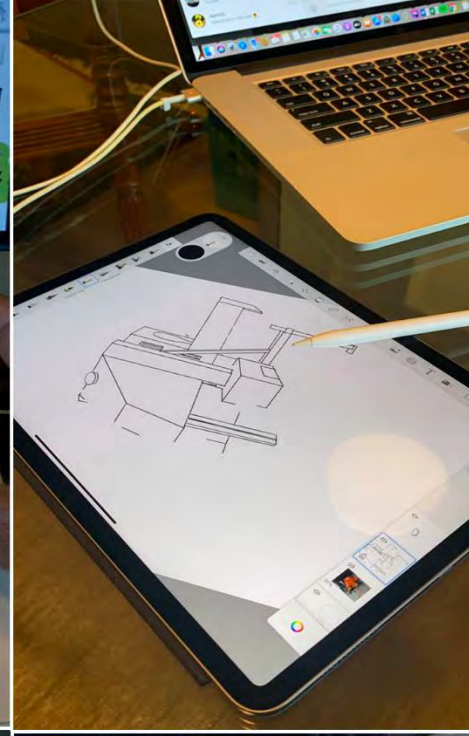
HOW IT BEGAN

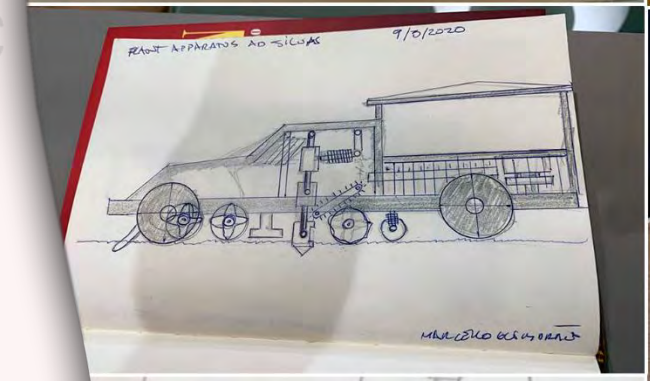
We designed the first sketches of the forest planting machine in 2016. Since then, we have created 3 life-size prototypes, machines ranging from 4 tons to 12 tons, to test in the field, in real conditions, all the ideas that came up and all the possibilities, experimenting and making adjustments to each new idea.

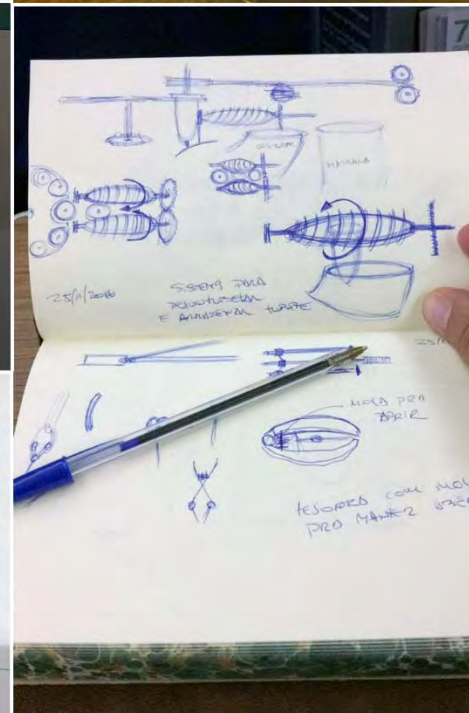
Our experience in planting forests, collaborated a lot in the construction of an extremely fast machine, compared to the existing machines today.

While the most fast machine of today, it plants an average of 900 seedlings per hour, we managed to plant more than 10,000 seedlings per hour with our RCCM.

An unprecedented feat in the world forestry sector.







Reforestation / Forestry

We are concluding the construction of the functional prototype of version 3.0 of the RCCM, which aims to carry out reforestation projects (recovery of degraded areas) by planting any tree species, with 50 gram to 2 kilo seedlings.

The machine to carry out forestry projects (RCCM v.4.0) is in the design phase (CAD), and will plant unique species in exclusive forestry (forestry) projects.

RCCM v.3.0 recovers degraded areas with a single tractor pass. It is not necessary to prepare the land for reforestation. The machine enters the degraded area, fields, harrow, subsoil, manure and plant in a single pass, at a speed that can vary from 4km / h to 8km / h, depending on the conditions of the area that will be recovered.

What changes with RCCM v.3.0

Current reforestation projects are very expensive and extremely slow, and usually cover very small areas, compared to the size of the problem on a global scale.

The Paris Agreement provides for the reforestation of millions of hectares worldwide, and scientific studies indicate that it will be necessary to plant 1 trillion trees to combat global warming.

RCCM v.3.0 simplifies, speeds up and lowers the cost per hectare of recovering degraded areas by planting forests.

Planting at a speed of 3,600 seedlings per hour, and using 278 seedlings per hectare, the machine will plant an average of 12 ha per hour, a record in the forestry sector, if we also consider that there are only 3 operators in the machine.

In 8 hours, 3 people plant 103 ha of forest.

RCCM Solution v.4.0 autonomous

RCCM v.4.0 is a 100% autonomous machine, that is, plants (silviculture) without any human interference.

RCCM v.4.0 autonomous plants faster and with more quality than any planting team, making afforestation a cheaper, faster and smarter process.

Planting at a speed of 10,800 seedlings per hour, and using 1,600 seedlings per hectare, the machine will plant an average of 6.75 ha per hour, a record in the forestry sector.

In 8 hours, without any human operator, the machine plants 54 ha of seedlings.

RCCM v.4.0 georeferences all planted seedlings, and uses intelligent systems to move, avoid obstacles and plant. It is the fastest machine for planting silviculture (eucalyptus, pine).

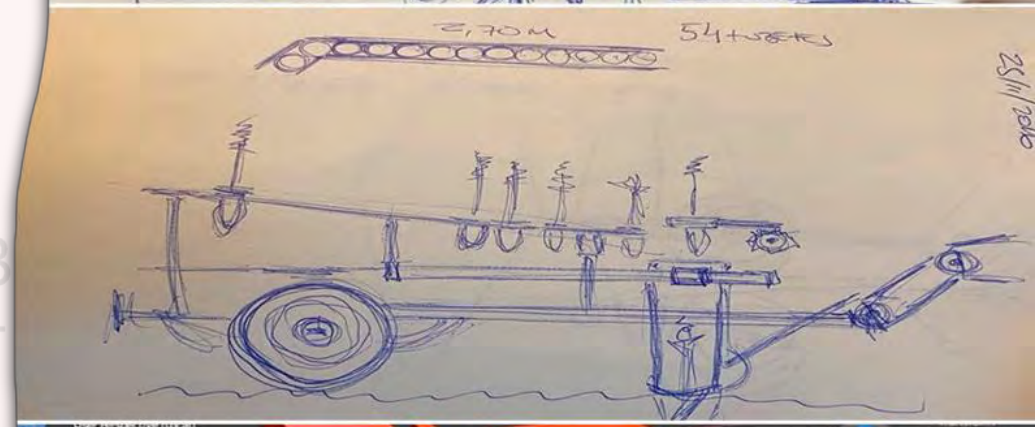
R & D

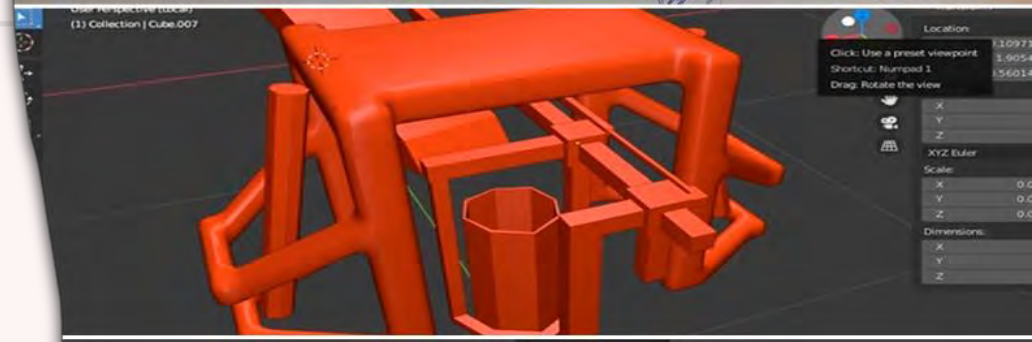
During 5 years we studied, designed, built and tested several solutions to reach the new RCCM version 4.0 100% autonomous.

We built 3 machines and thoroughly tested each system.

1. Seedling transport system;
2. Seedling delivery system;
3. Planting system;
4. Location system;
5. Planting quality test system;
6. Self driving system.

And, many other systems used in the forest planting machine.





RCCM v.4.0 *autonomous*

Forest BOT®

Features RCCM v.3.0

RCCM v.3.0
Rows the planting line
Plow the land of the planting line
Subsoil
Mane
Plant native or exotic seedlings

Planting speed:
1 seedling every 1 second
3,600 seedlings per hour (non stop)

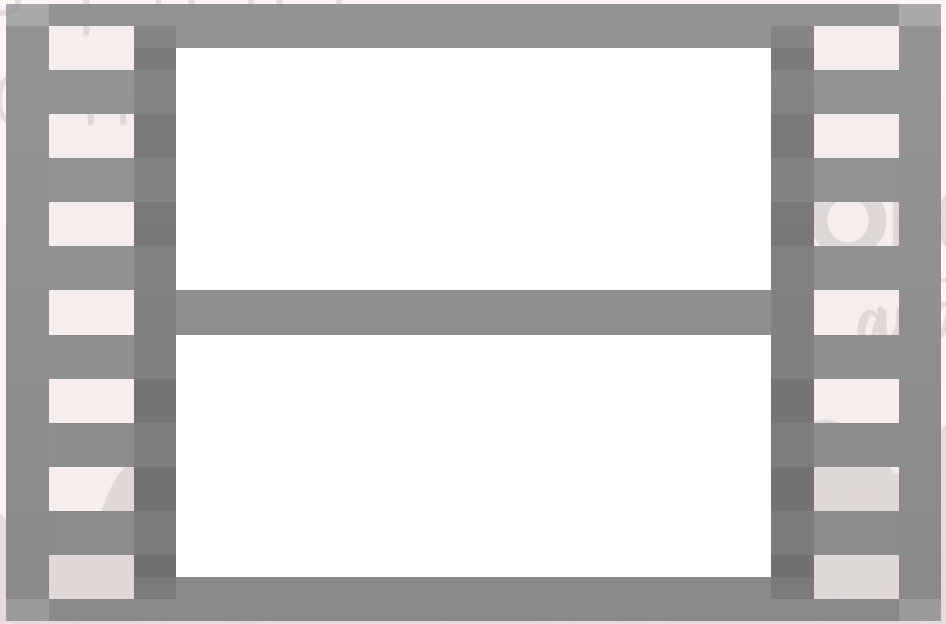
Max. Speed Robot:
8 km / h
480 linear km (20 hours)
288 ha (20 hours)

Features ForestBot

RCCM v.4.0 - 100% autonomous (Forest planting robot)
Self driving
Autonomous selection of trays (seedlings)
Automatically loads the planting mat
Geoprocess planting by seedling
Artificial intelligence

Planting speed:
3 seedlings every 1/2 seconds
5,400 / 10,800 seedlings per hour (non stop)

Max. Speed Robot:
8 km / h
480 linear km (20 hours)
288 ha (20 hours)



What to expect...

Using the RCCM v.4.0 platform we will build machines for forest management, such as:

Machine for watering by seedling

Machine that fertilizes the seedling

Machine sprays pest at seedling

Forest health reading machine

Machine for forest inventory.

All these machines are derived from the planting platform (Self Driving) and from the precise knowledge of the position where the seedling was planted.

CONTACT

Sites / Social Networks / Contacts	
Sites	https://mahoganyroraima.com.br/
Group	https://iPlantForest.com/
Investors Relations	https://ri.iPlantForest.com/
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Youtube	https://www.youtube.com/iPlantForest
Machine	https://www.instagram.com/Forest.BOT/
Contact	
Phone / Whatsapp	+55 (95) 99170-2533
e-mail	marcello.guimaraes@iPlantForest.com
Address	Endereço: Av. Eng. Luis Carlos Berrini, 1748 - CJ 201 - Ed. E-Office Design Berrini. Cidade Monções. CEP: 04571-000. São Paulo - SP, Brasil.