



# OPTIX

TECHNOLOGIES

**INCREASE EFFICIENCY.  
REDUCE WASTE.  
SAVE MONEY.**

THE ULTIMATE  
DIGITAL ECOSYSTEM  
FOR FORESTRY.

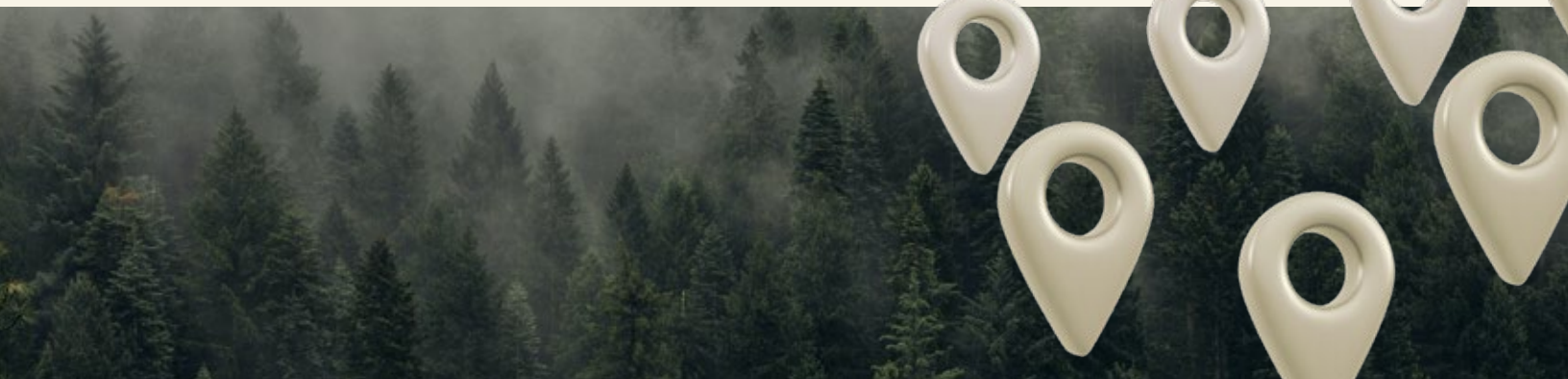
## ABOUT OPTIX

OptiX Technologies has created an ecosystem that consists of physical field devices, mobile and cloud-based software and associated interface equipment that is used not only for tracking and reporting the proper use of chemicals but to manage and track where seedlings are located, plant viability tracking, fleet and equipment tracking, customer management, inventory management and many other tools that support properly operating in the green industry. The entire ecosystem is centered around a cloud-based software package that provides functionality like CRM, scheduling, routing, logging, reporting and mapping. Smart field devices such as flow meters, spray guns and planting devices provide valuable information like applied chemical volume, temperature, direction and pattern of spray, path traveled, areas covered and location of trees planted.

## INTRODUCTION

OptiX Technologies would like to present the ArborX line of precision planting devices which have been developed specifically for the tree planting industry. These trackers use a unique sensing technology, developed by OptiX, to determine when a dibble bar, spade or mechanical planter has been inserted into the ground and the precise global position of that location where a seedling has been planted. This data is recorded and stored in a database that can be later used to generate many different types of reports and for other types of automated plant inspection and maintenance reports.

The ArborX device implements a special algorithm which prevents recording multiple trees within a preset radius as this can be an issue when planting in hard soils and multiple insertions are required. This radius can be set by the customer and may be customized for each job and/or device.



## MODELS

The ArborX is available in four models which all provide the same functionality but allow for various hand hold positions or mounting on various tools / machinery.



### ArborX-DP

The ArborX-DP is designed to be utilized on standard Dibble bar Planters. This device employs a tee handle which provides for multiple hand hold positions such as two-hand horizontal, one-hand horizontal and one-hand vertical. This tool is designed for operators who typically prefer to hold the tool with two hands but provides for comfortable hold positions using one hand as well.

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### ArborX-DPS

The ArborX-DPS is identical to the ArborX-DP with the exception of it has only a half tee handle. This model is designed for operators who prefer to use only a one-hand hold in either the horizontal or vertical position. This also makes for a smaller tool that is easier to carry in one hand.

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### ArborX-SP

The ArborX-SP is designed to be utilized on standard Spade or Shovel type planters. This device employs a vertical handle with no horizontal handle which is typically expected for spade shovel planting applications. If a horizontal handle is required, it is possible to use the DP or DPS models with a spade shovel.

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### ArborX-MP

The ArborX-MP is designed to be utilized on mechanical planters, such as the C&G planter, which are typically towed by a bulldozer or tractor. This device is provided as a parts kit which may include mounting and bracketry designed specifically for the brand or model of planter. The kit consists of a roof mounted antenna, electronics enclosure, sensors, cabling and mounting hardware. Sensors mounted on the equipment detect when plants have been inserted and when they are placed into the ground. The system may be powered by a stand-alone battery or via the towing vehicle's power system.

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## MOUNTING

The ArborX DP, DPS and SP models are designed with a strong mechanical clamp which clamps onto the factory shaft of a dibble bar or spade shovel. The factory handle is cut-off at the desired height and using an adapter, the ArborX is simply inserted over the end of the cut shaft and bolts tightened. OptiX offers a variety of adapters to accommodate the majority of standard, commercially available, dibble bars and spades.

The ArborX MP is a parts kit that is designed to be permanently installed in a mechanical planter. A low-profile antenna is mounted on the roof of the planter. An electrical box is installed inside of the planter box which houses the battery and electronics and provides a power switch for enabling/disabling the system. Sensors are mounted in various places around the planter mechanism to detect planter mechanism motion and seedling location. Cabling is provided for connecting the various system components and optional cabling is available for powering the system from the towing vehicle.

## TECHNICAL INFORMATION

The ArborX DP, DPS and SP are battery powered devices which use a rechargeable lithium-ion battery as their power source. The factory supplied battery will power the device for at least 12 hours of continuous use and can typically be charged between 300 and 500 times when used and stored according to the supplied documentation.

The ArborX uses various wireless communication technologies, such as Bluetooth, WiFi or LTE, to communicate with a mobile device for configuration and data log retrieval.

As an optional service, some devices implement LTE connectivity to provide real time operator tracking and remote configuration. Optionally, the ArborX contains a long-range wireless radio which allows rough operator location tracking from a vehicle mounted base station. With a separately purchased, vehicle mounted, base station, a foreman or supervisor may monitor the location of their team members up to a distance of one-half mile. This information is shown on a map in the OptiX mobile app.