



How to decide on the best robotic mower for your commercial property

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Have you ever seen a robotic mower and thought “I can’t believe robots are cutting grass now!” Ironically, Europe has sold over 3 million robotic mowers or “auto mowers” in the past 20 years. In the US, the adoption of auto mowers for commercial landscaping has been accelerating for the past 3 years.

Whether you are researching because of labor shortages, desiring to redeploy valuable employees to the most valuable work, attempting to find ways to save money over your current routine, pursuing a more environmentally friendly option to mowing, or all the above, the auto mower market has plenty of options with no simple choice.



If you manage mowing in a cemetery, athletic field, solar farm, or golf course, you may be tempted to listen to the manufacturers and believe every current generation auto mower will work for your property. Unfortunately, they differ in range, cutting heights, use case, installation, and software functionality. This guide is designed to help you understand how to marry the right workflow, the right use case, with the right auto mower. You’ll notice I listed the workflow

as the first important item. Without choosing and adopting the right, expected workflow for your team first, automating your property will fail due to a lack of routine adoption.

Your team may follow this routine today to mow your property an acre at a time.

1. Load the mower onto the trailer
2. Drive to the part of the property that is on the schedule today
3. Unload the mower from the trailer
4. Mow between 20 minutes to an hour per acre (Cemeteries may take longer than an open field)
5. Refill mower
6. Load the mower onto the trailer
7. Return to maintenance shed
8. Unload mower from the trailer

9. Perform maintenance duties such as oil change, cleaning terminals, replacing/cleaning filters, wheel maintenance, and fixing broken parts.
10. Create a workorder for any obvious areas to address on the property that may impact the property appearance rating or is a safety issue for visitors and guests of the property

The new workflow you must consider and adopt for a successful transition to robotics in your landscaping routine is very different. This process assumes a software component managing the auto mower is in place (My Goat Software is an example)



1. Drive to the property to replace auto mower blades, brush off excess grass, and rotate auto mowers when reminded by the management software
2. Drive to the property to address environmental issues that the auto mower finds on the property. These issues may require repairing holes, removing large tree branches from a recent storm, and any obstructions left by visitors/guests (trash bags).
3. Create a workorder for any areas that the auto mower detects to address on the property that may impact the property appearance rating or is a safety issue for visitors and guests of the property
4. Continue to manage, control, and optimize auto mowers from anywhere while mowing gets done and your team performs other duties

The initial routine after installation will require some additional trips to the property to address environmental imperfections. Stay the course! This phase is often where programs can fail because the transition may require extra attention early to reach the desired “automated” property. Once this adoption phase is complete within the first 28 days, the software will assist the team with maintaining the property through texts reminders and alerts, provide suggestions and levers to improve the experience, and generate reports to keep everyone in the loop.

Once you and your team are comfortable with the expected workflow changes, responsibilities, and routines, you can now start deciding on the right use case and the right auto mower. Here are the basic questions to ask yourself.



1. How many total acres do you want to mow?
 2. Which landscape type?
 - a. Cemetery
 - b. Parks and Recreation
 - c. Athletic Fields
 - d. Solar Farm
 - e. Golf Course
 - f. Regional Airport
 3. How many times do you mow each week?
 4. How many weeks in your cutting season?
 5. How much time to mow an acre?
 6. How high is the cut (inches)?
 7. Do you have electricity available across your campus?
 8. Do you insource or outsource mowing today?
 9. How many employees involved with mowing today?
 10. Why is this interesting?
 - a. Labor challenges
 - b. Financial savings
 - c. Property appearance
 - d. Environmental initiative
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Below, you will find a chart showing how the responses to the 10 questions relate to typical mower specifications or a vendor's offering and why the response is so critical for your success. If you are a do-it-yourself type of professional who prefers to learn through trial and error, you will find this chart helpful. If you just want your property mowed and leave the details to an expert, that is why Robot-as-a-Service (RaaS) exists to provide you the right workflow, software, and the right hardware to get the job done.

Questions	Why is This Important?
How many total acres do you want to mow?	Automowers have ranges on how large of a plot each mower can handle. The typical auto mowers in the market range between .25 acres to 1.25 acres with some larger commercial auto mowers touting 6 acres or more. If you subscribe to the growing number of software companies who offer value-add software to more easily manage your auto mowers, ask if they can also determine if you can use a single auto mower over multiple acres. My Goat software enables many customers to operate with a 2 acre per auto mower ratio to save cost.
Which landscape type?	This is a critical question as a variety of use cases impact the auto mower's mowing and charging times due to types of grass as well as obstacles such as random upright markers, flat markers, soccer goals, etc.
a. Cemetery	Cemeteries often have a variety of markers and headstones for the auto mower to navigate against. Although most cemeteries can work with an automower, cemeteries with a variety of types of markers within the same areas may add challenges.
b. Parks and Recreation	Parks and recreation areas are very good matches for auto mowers due to their open fields. However, many parks and recreation teams may choose to set a mowing schedule for the times when guests and visitors are not enjoying the park.
c. Athletic Fields	Athletic fields often transition from traditional mowing to robotic mowers due to their uniform areas and minimal environmental challenges such as tree limbs, holes, etc.
d. Solar Farm	Solar farms often do not require regular cuts and are perfect matches for auto mowers. In fact, solar farms often can reduce the auto mower investment by up to 4x by following a strict mowing schedule. My Goat software manages and optimizes this schedule.
e. Golf Course	Fairways, driving ranges, and public areas are well suited for auto mowers. Currently, the type of cut required on greens is not a fit for auto mowers.
f. Regional Airport	Regional airports are a great fit to handle the dangerous areas in the airfield as well as the public areas in the front of the airport.
How many times do you mow each week?	Auto mowers operate at 1000 sqft/hr to 5,000 sqft/hr. Due to the variation of mowing coverage, the mowing coverage, acres, and time available in the schedule can make or break matching your existing cutting expectations.
How many weeks in your cutting season?	This response is associated with any total cost of ownership and/or ROI calculation to determine if the autonomous mower route has financial legs. This is one component we use to help determine the status quo cost to mow an acre versus the same using an auto mower system.
How much time to mow an acre today?	Typically this number is between 20 minutes (open field) to 60 minutes (complex cemetery with many vases). This value is another value that contributes to the financial validation.
How high is the cut (inches)?	Depending on your cut height today, that will limit your auto mower choices. Depending on the model, cutting heights on auto mowers range from 0.5 inches to 4.5 inches.
Do you have electricity available across your campus?	This is a critical element. Each acre plot requires access to a 120V outlet. Although solar options exist and we have implemented them, they are costly and can typically handle 1-2 acres per solar station.
Do you insource or outsource mowing today?	If you outsource today, the cost to mow per acre will be easier to note to compare versus robotic mowers
How many employees involved with mowing today?	This value with the mowing time can directly reflect one of two sizable elements of the total cost of ownership comparison
Why is this interesting?	The following are the most identified reasons for adopting robotic mowers in the commercial space.
a. Labor challenges	The lack of labor or the extra cost to keep onboarding new employees due to a revolving door of employees is often a highlighted reason for looking at these solutions. We also find customers who want to redeploy saved labor hours to more skilled tasks.
b. Financial savings	We typically see customers savings up to \$1000 per acre per year by redeploying labor, avoiding the cost of new mowing gear, and the cost of maintenance associated with traditional mowing equipment.
c. Property appearance	Automowers can match the number of mows you complete today but they can also find environmental issues and also enable redeploying labor to focus on beautifying the campus. This will lead to an improved property appearance rating
d. Environmental initiative	Environmental initiatives often drive auto mower adoption since this is an area associated with the fastest and simplest transition to a more environmentally friendly alternative