



2026 EDITION · FOR HOMEOWNERS & CONTRACTORS

# DIY Planning Guide.

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Everything you need to plan, build, and run an effective misting system on your own property.

## WHAT YOU'LL LEARN

- Map your property and pick the right layout
- Calculate nozzles, tubing, and supplies needed to complete the install
- Install, and program your system
- Maintain it season after season

GETFLYAWAY.COM · PERIMETER MISTING SYSTEMS

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Ten steps from "I want one of these" to "my system is running" — plus a component reference, a printable worksheet, and a troubleshooting guide.

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## WELCOME

# Built to be built—by you.

Flyaway sells the parts. You — or your contractor — complete the install. This guide walks through both planning and installation in the order you can follow, with the math, layouts, and checklists you need at each step.

## Who this is for

**Homeowners:** You want long-term mosquito and fly control without paying monthly for barrier treatments and sprays? This guide shows you how to plan, source, and install a system yourself.

**Contractors:** You install for clients and want a clear scoping and build reference. Use this for spec'ing jobs, training crew, and giving customers a shared mental model.

**Property managers:** Restaurants, ranches, hotels, event venues, equine facilities. The principles scale — design varies. Browse the layout chapter for your use case first.

## How to read this guide

Read in order on your first pass. The early steps help with the later ones — you can't calculate components until you've mapped your property, and you can't program the system until it's mounted. On returning visits, jump to the section you need: each step is self-contained.

### A NOTE BEFORE YOU START.

Misting systems need a 110V electrical outlet for power and a water source typically within 100 yards to allow for easy refilling. FlyAway systems pull 10.4 amps and we highly recommend a dedicated plug.

## STEP 01 · MAP YOUR PROPERTY

# Walk the perimeter.

Misting systems work both as a barrier to entry and creating an area where mosquitoes cannot survive. Your job at this stage is to identify three things: where pests enter your property, where people gather, and how to use the tubing and nozzles to encircle the area to be treated.

1. **Identify entry zones.** Walk the boundary of your property. Look for fence-lines, tree lines, hedgerows, and adjacent woods or wet areas. These are where mosquitoes and flies enter so it's important to ensure this area is covered so there is an exterior perimeter established.
2. **Identify gathering zones.** Where do people actually sit, eat, and host? Patios, pool decks, arbors, fire pits, dining tables. Placing nozzles under the roof line and in arbors/ patio covers help to protect these areas and establish an interior barrier.
3. **Identify obstacles.** Gates and driveways pose challenges when running tubing. Make sure you can connect the tubing/ lines from the fence to the house so the system is fully looped for maximum efficiency. Note them now to avoid rework later.

## TOOLS FOR THIS STEP

- Tape measure or measuring wheel
- Phone camera (photograph problem zones)
- Notebook or printed satellite image of your lot
- Stake flags or chalk (optional but helpful)

## STEP 02 · PICK YOUR LAYOUT TYPE

# Find the closest match.

Most properties fall into one of nine layout patterns. Pick the one closest to your situation and adapt — the routing principles transfer, even if your property shape is different.

## Residential

- 01 Compact backyard — ~18 nozzles, single tank. The simplest case.
- 02 Pergola & pool — ~55 nozzles. Lifestyle integration with dedicated pergola coverage.
- 03 Dining pavilion — ~78 nozzles. The most complex residential case, beam-routed.

## Commercial

- 04 Restaurant patio — ~40 nozzles. Dense pergola grid plus railing perimeter for diners.
- 05 Event venue — ~55 nozzles. Zoned ceremony, reception tent, and bar coverage.
- 06 Hotel pool deck — ~50 nozzles. Four cabanas plus deck perimeter, concealed routing.

## Agricultural

- 07 Barn & paddock — ~35 nozzles. Stall-row ridge plus paddock fence.
- 08 Multi-building ranch — ~75 nozzles. Five zones (house, barn, shed, corral, fence) on one tank.
- 09 Poultry coop — ~35 nozzles. Coop interior plus run mesh and dedicated compost-zone nozzle.

### SEE THE FULL VISUAL BREAKDOWN

Visit [getflyaway.com/our-process](https://getflyaway.com/our-process) for the visual reference of each layout. Pick your closest match — you'll adapt the routing in Steps 3 through 7.

## STEP 03 · CALCULATE NOZZLES &amp; TUBING

# Do the math.

Once you've picked a layout type, you can size your system. Three numbers drive everything: nozzle count, tubing length, and fittings count.

## Formula 1 — Nozzle count

### Perimeter feet ÷ spacing = nozzles

Residential ~10 ft · Commercial ~8 ft – 10 ft · Agricultural ~10 ft

Example: 200 ft fence ÷ 10 ft = 20 fence nozzles. Add soffit, patio, and beam counts separately.

## Formula 2 — Tubing length

### Routed feet + 10% slack = total tubing

Routed feet = the path tubing actually follows, including zigzags along soffits and beams.

Tubing sold in 500 ft rolls; buy enough rolls to cover the job.

## Formula 3 — Fittings count

- Per nozzle: 1 slip-lock tee + 1 45 degree adapter
- Per corner: 1 slip-lock elbow or 45° adapter
- Per dead-end: 1 slip-lock plug

*Add 5–10% spares. Fittings are inexpensive; returning mid-install is not.*

## STEP 04 · MOTOR, TANK &amp; SUPPLY SIZING

# Size the system.

The CLM Misting System is built around a 1/2 HP rotary vane pump rated at 140 GPH and 210–215 PSI. It supports up to 90 nozzles before pressure drop becomes an issue.

## CLM Misting System — standard residential

SPEC	VALUE
Motor	1/2 HP, 110V
Pump	140 GPH @ max 250 PSI
Capacity	Up to 90 nozzles
Enclosure	Polyurethane, lockable
Controller	Digital, programmable
Remotes	2 × on-off remotes
Tank	55-gal drum (sold separately)
Price	\$1,663.20

## Tank sizing — refilling as needed

Most installs only require a 55 gallon drum. For larger systems, you may want to look at a larger drum to allow for less frequency between refills. We recommend a 100–110 gallon drum for systems over 65 nozzles. “Best practice” is to set the system for three times a day between 45–55 seconds per treatment. Refill via garden hose or auto-fill float valve.

## When to scale up

- Over 90 nozzles total → look to add a second system.
- High-frequency commercial cycling → upsize tank capacity, not pump output.

## STEP 05 · PLAN YOUR UTILITIES

# Water. Power. Drainage. Freeze.

Your tank needs to sit somewhere with access to water, power, drainage, and protection from freezing temperatures.

UTILITY	REQUIREMENT
<b>Water</b>	Garden hose bib within 100 ft. Auto-fill float valve optional but recommended for hands-off refill.
<b>Power</b>	Standard 110V GFCI outlet. Pump draws ~10.4 amps fully running. Using a dedicated circuit is recommended.
<b>Drainage</b>	Place tank on gravel, concrete, or bare grass. Make sure ground is level before filling 55 gallon drum.
<b>Freeze</b>	Drain tubing in early winter before first freeze. Turn the system on for 4–7 seconds without the filter submerged in liquid to bleed the lines and pump.

#### BEFORE YOU ORDER PARTS, CONFIRM:

- Tank location decided — within 100 ft of water and 10 ft of power
- Routing path walked — no fence-line obstacles missed
- Nozzle count and tubing length calculated (Step 3)
- Gates/driveways flagged for buried conduit runs
- Local irrigation or HOA rules checked

## STEP 06 · INSTALLATION OVERVIEW

# The sequence.

A typical residential install usually only takes 1 day for a handy homeowner, 4–6 hours for a contractor crew. Do the work in this order — each step builds on the last.

PHASE	DESCRIPTION	TIME
<b>1. Mount tank &amp; system</b>	Place 55-gal drum on its pad. Tank mount system or bolt mount to the exterior wall. Use the applicable supplies if mounting to the wall.	~1 hr
<b>2. Run main supply</b>	Install tubing from distribution line in the system to the first nozzle. Install using clamps on the fence line, across arbors, under roof soffit, etc. Be as discreet with the tubing as possible to ensure an aesthetically pleasing install.	~3–6 hrs
<b>3. Install nozzles</b>	For each nozzle: cut tubing, insert tee, screw holder, install nozzle. Repeat for perimeter.	~3–6 hrs
<b>4. Connect tank</b>	Complete final fittings. Connect supply line back to pump. Fill 55 gallon drum or other drum if larger.	~30 min
<b>5. Pressure test</b>	Run the system. Walk every nozzle, check for leaks, make any adjustments as needed.	~30 min
<b>6. Program controller</b>	Set cycle frequency, duration, times. Test remotes.	~30 min

## STEP 07 · MOUNTING TUBING &amp; NOZZLES

# The build, in detail.

How you mount the tubing determines how the system looks afterward — and whether it lasts.

Four common mounting situations:

MOUNT TYPE	HOW TO DO IT	RECOMMENDED PARTS
<b>Fence-line</b>	Top-of-fence: zip-tie or clip tubing to top rail with UV-rated black tubing. Lower-trim mount under bottom rail avoids future risers when landscaping is added.	Black tubing, black 1/4" clamps
<b>Soffit</b>	Run along the underside of the roof eave. Use color-matched tubing and matching clamps. Pre-drill into hardwood fascia.	White/tan tubing, color-matched clamps
<b>Pergola / beams</b>	Route along the top edge of structural beams or inside the ceiling cavity. Tan or brown tubing blends with the wood.	Tan/brown tubing, adhesive clips OK
<b>Buried</b>	Driveways, gates, walkways: bury in 1/2" or 3/4" PEX or PVC conduit. Pull tubing through after the conduit is laid.	Black tubing inside protective conduit

## Installing a single nozzle

1. Cut the tubing where you want the nozzle. Use a tubing cutter for a clean square cut.
2. Push both ends into a 1/4" slip-lock tee. They lock automatically — pull to seat.
3. Snap the slip-lock straight adapter into the tee's perpendicular port.
4. Thread the nozzle into the adapter. Hand tighten the nozzle. Do not use wrench or pliers.
5. Confirm the nozzle is aimed away from walking paths and lighting fixtures.

## STEP 08 · FIRST STARTUP &amp; PRESSURE TEST

# Commission the system.

Before scheduling daily cycles, run a full pressure test. This catches loose fittings, wrong-orientation nozzles, and pressure problems while they're relatively easy to fix.

1. **Fill the tank.** Fill the 55-gal drum to ~3/4 full. Check for visible leaks at tank fittings.
2. **Prime the pump.** Press the manual run button. The pump may take 30–60 seconds to draw water through dry lines.
3. **Walk the perimeter.** Watch each nozzle. They should mist a fine cone within 5 seconds of pump engagement.
4. **Mark any leaks.** Stick a flag at any fitting that drips or sprays sideways. Shut off the system before disassembly.
5. **Check pressure gauge.** Should read 210–215 PSI during run. Lower = leak or undersized supply. Higher = adjust down to right amount. Too high of pressure and nozzles can wear out prematurely.

## COMMON FIRST-START ISSUE

New nozzles can drip for the first 1–2 cycles as air purges the system. If a nozzle is still dripping more than 10 seconds after 3 cycles, check the spring & ball assembly — sometimes the ball seats incorrectly. Replacement spring & ball 10 pack: \$14.66. Nozzles continue to drip up to 10 seconds after system stops due to the continued pressure in the lines. As pressure decreases, nozzles stop dripping. If dripping is over 10 seconds and/or continuous, replace the nozzle.

## STEP 09 · PROGRAMMING YOUR CONTROLLER

# Set it and stop thinking.

The FlyAway digital controller programs in two dimensions: cycle frequency and cycle duration. Most properties use 3 cycles per day at 30–50 seconds each.

## Recommended cycle programs

USE CASE	CYCLES / DAY	DURATION	TIMING
Mosquito pressure	3	45–50 sec	Dawn, dusk, midnight
Fly pressure (typical)	5–6	30–45 sec	Every 3 hrs, dawn–dusk
Commercial / restaurant	8–12	30–45 sec	Dawn, dusk, midnight. Do not treat when people or pets are present.
Equine / livestock	5–6	30–45 sec	Around feeding times
Event mode (manual)	on-demand	30–50 sec	Triggered via remote

## Seasonal adjustments

- Spring: ramp cycles up gradually if and when needed as temps rise above 60°F.
- Summer: peak schedule. Adjust timing as needed.
- Fall: scale down with first cool nights. Most pests dormant below 50°F.
- Winter: drain lines before first freeze. Shut the system off and make sure pump has been winterized.

## STEP 10 · MAINTENANCE SCHEDULE

# Keep it running.

Misting systems are nearly hands-off, but not zero-touch. Set a recurring reminder for each interval below.

## Monthly

- Walk the perimeter during a cycle. Look for non-spraying or dripping nozzles.
- Check tank water level. Refill if below 1/3.
- Visually inspect tubing for sun damage or animal interference.
- Check pressure gauge during a cycle (should read 210–215 PSI).

## Annually

- Replace nozzles as needed. Replace ball and springs to preserve the nozzle itself and save some expense.
- Inspect all fittings for cracking; replace if needed.
- Tank deep-clean: drain, wipe interior, refill with fresh water.
- Test remotes and display unit on main controller.

## Seasonal (freeze line)

- Before first hard freeze: drain all tubing by lifting the filter line out of the water and running the system for 4–7 seconds. This should clear out any product or water left in the lines and pump.
- Spring re-commissioning: same procedure as first startup.

## REFERENCE

# Components.

Everything Flyaway sells, organized by category. Prices current as of 2026 — verify live pricing at [getflyaway.com/shop](https://getflyaway.com/shop).

## Main equipment

ITEM	PRICE
CLM Misting System	\$1,663.20
55 Gallon Drum, black, lock ring	\$149.15
1/2 HP Electric Motor, 110V	\$278.76
Pump 140 GPH 250 PSI (rotary vane)	\$152.54

## Tubing (1/4" Nylon PA 12, 500 ft rolls)

COLOR	PRICE
Black	\$142.56
Brown	\$142.56
Gray	\$142.56
Tan	\$142.56
Translucent White	\$142.56

## Fittings (1/4" Slip Lock, Nickel-Plated Brass)

ITEM	PRICE
45° Adapter (Slim Line)	\$35.23
Elbow	\$47.84
Straight connector	\$44.67
Tee	\$53.06
Plug (dead-end)	\$31.68

## Nozzles

ITEM	PRICE
Hex Nozzle, 304SS, Brass Filter, Anti-Drip	\$90.80
Hex Nozzle Assembly (complete)	\$160.90

ITEM	PRICE
Hex Nozzle 1/4" SL Straight Adapter	\$59.40
Hex Nozzle O-Ring	\$4.75
Slim Line Nozzle Assembly, 0.3mm	\$157.40
Slim Line Nozzle, Filter-less, 316SS	\$75.10
Spring & Ball, Slim Line, Viton	\$14.66

## Install parts & accessories

ITEM	PRICE
INSTALL PARTS KIT (Black)	\$951.01
24" Riser Box (Aluminum, complete)	\$265.36
Tank Mount Kit	\$35.30
Tubing Clamps 100/PK (black / gray / white)	\$15.84
Tubing Cutter	\$46.18
Nozzle Wrench Set	\$17.42
Pressure Gauge 0–300 PSI	\$24.84
Power Cord 15ft / 8ft	\$16.03 / \$9.57
Remote Control 433MHz on-off	\$8.89
Remote WIFI Receiver + 2 remotes	\$29.15

PRINTABLE

# Your planning worksheet.

Print this page. Carry it with you when walking the property. Fill in as you go.

## Property information

Property type (residential / commercial / agricultural):

\_\_\_\_\_

Layout match from Step 2: \_\_\_\_\_

Approximate fence-line perimeter: \_\_\_\_\_ *ft*

Approximate house / soffit run: \_\_\_\_\_ *ft*

Other runs (pergola, beam, etc.): \_\_\_\_\_ *ft*

## Component totals

Fence-line nozzles: \_\_\_\_\_ *qty*

Soffit nozzles: \_\_\_\_\_ *qty*

Other nozzles (specify): \_\_\_\_\_ *qty*

Total nozzles: \_\_\_\_\_ *qty*

Total tubing length (×1.1 slack): \_\_\_\_\_ *ft*

## Utilities & site

Tank location: \_\_\_\_\_

Distance from water source: \_\_\_\_\_ *ft*

Distance from power outlet: \_\_\_\_\_ *ft*

Buried runs (gates, drives, paths): \_\_\_\_\_

## Notes

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TROUBLESHOOTING

## FAQ

# Frequently asked.

**Question: My system does not seem to be working?**

- Make sure the white surge button is pressed in on the box.
- Please check the display unit on the system to make sure it's lit up. If not, check the GFI switch on the electrical outlet to ensure it has not flipped, causing the system to power off.
- Make sure electrical outlet has power and ensure the breaker is not flipped (fuse tripped).
- The system only requires a 110V outlet and pulls 10.4 amps so please make sure there is enough amps to support the system.

**Question: The remote control does not seem to be working?**

- Please make sure and hit the off button before pressing on. This allows the system to know it's in remote mode. The system returns to auto mode once remote has been used.
- Make sure the unit is turned on and there is power to the box. Control unit will be lit up.
- You may have to be in direct line with the box if trying to operate in the house or around corners. Please get closer to the box to test the remote. There are some limitations on distance when operating the remote.
- If over a year, replace batteries in the remote and then try again. Remember to hit off. If batteries have been replaced, then we will need to send out a technician.

**Question: I have nozzles that are leaking/ dripping?**

- All nozzles will leak several drops after the system has stopped. This is due to the system still being pressurized while the product is being pulled back into the drum. If the nozzles continue to leak for 30 seconds or more past the last treatment, replace the nozzle.

**Question: My dog ate through the line or my landscaping crew cut a line?**

- Please turn off your system. Repair the line and retest.

**Question: I have a couple of nozzles that are not spraying?**

- That is normal and to be expected. Nozzles are placed 10 feet apart so if several go out the system once fully operational will be able to keep up with control of the yard. The mist from the nozzles float through the area to provide treatment.

**Is this safe around kids and pets?**

- The system uses water based products. Check the products MSDS for further guidance.

**How effective is it?**

- Misting systems users report 90–95% reduction in mosquito and fly populations within two weeks of installation. Effectiveness depends on perimeter coverage — gaps in routing leave gaps in protection. Remotes should be used to help with any control issues.

**How long does an install take?**

- A handy homeowner: one to two days. A two-person contractor crew: several hours to one day for a typical residential property. Commercial and agricultural vary.

**Do I need a permit?**

- Generally no — but please check with the jurisdiction you live in to make certain. Permits are the homeowner's responsibility.

**Can I expand the system later?**

- Yes. The FlyAway system controls up to 90 nozzles. Adding more means new tubing runs and tees — no controller upgrade needed. Beyond 90 nozzles, consider zones or a second system.

**What does it cost annually to run?**

- This is all dependent on usage, seasonality, frequency of cycles, spray times, remote usage, leaks if they occur, etc.

**What if I need help during install?**

- Email [support@flyaway.com](mailto:support@flyaway.com) with photos. The team responds within 48–72 hours.

**System won't prime**

System runs but nozzles not spraying. Check pressure gauge. If there is no pressure, then check for leaking nozzles and/ or cut lines. Repair and retest. Make sure filter in the drum is clean of debris and submerged. Repair and retest.

**Pressure gauge reads under 200 PSI**

A leak somewhere. Walk the run during a cycle, listen for hissing fittings or wet ground. Tighten or replace and retest.

**Controller not running scheduled cycles**

Check the day/time settings.



READY TO BUILD?

# Your yard. Your plan. Your system.

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Order components, ask questions, or send your worksheet for a sanity check before you build.

## CONTACT

[getflyaway.com](https://getflyaway.com)

[support@flyaway.com](mailto:support@flyaway.com)

Visit [getflyaway.com/shop](https://getflyaway.com/shop) to order components.

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*This guide is a planning reference. Local codes, site conditions, and property factors may require professional consultation.*