Ant Village

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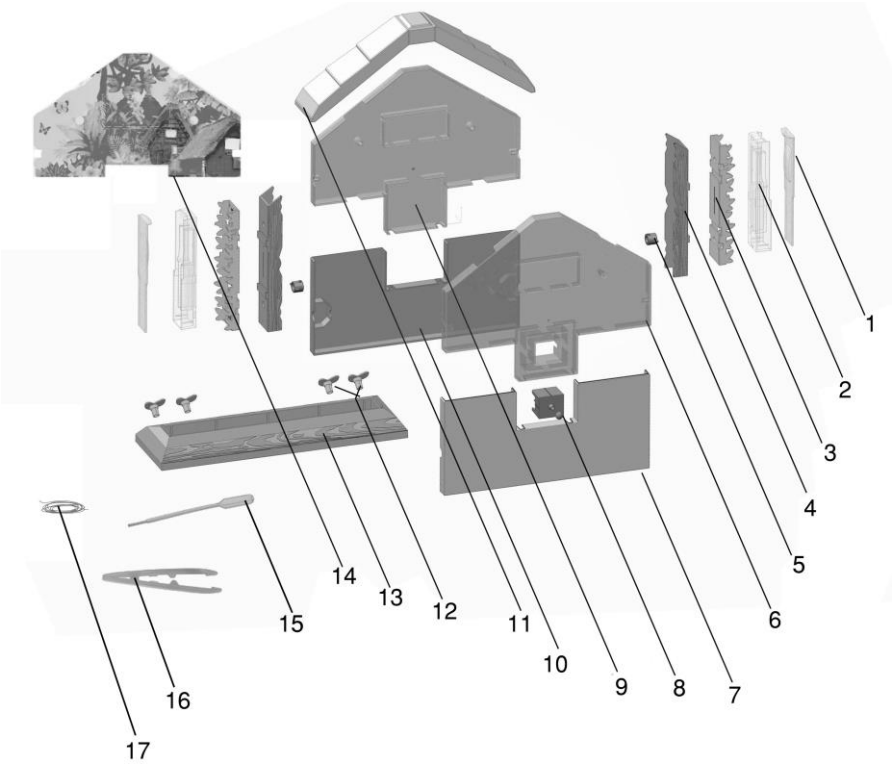

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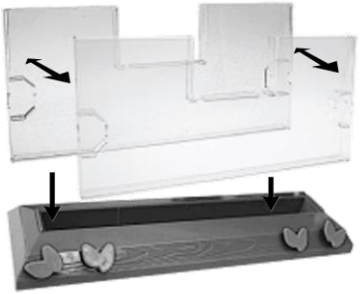
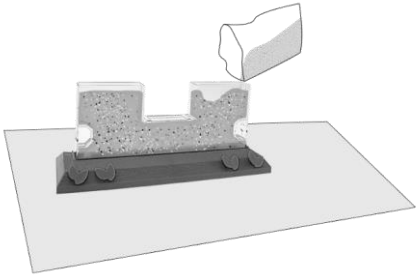
Warning: Not suitable for children under 36 months due to small parts. Choking hazard.

Setting Up:

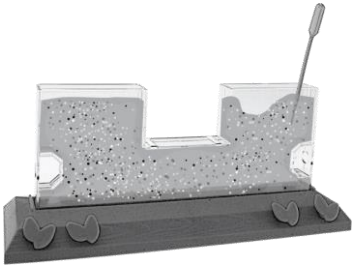
1. Combine the front and rear sand panel and install into the base. Make sure they fit tight.



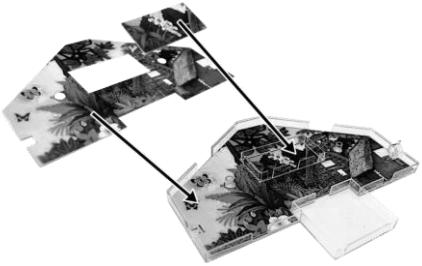
2. Stand the base on a tabletop covered with a large piece of paper or newspaper.
3. Fill the chamber with sand through the top opening. Use a funnel to limit the spilling of sand on the table. It is recommended (not a must) to mix some garden soil in the sand beforehand to provide more moisture similar to the natural environment. The soil is also better at holding the tunnel structures built by the ants.



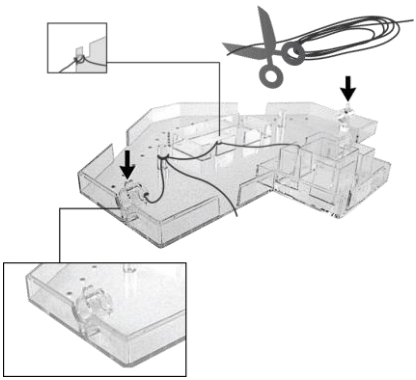
4. Use the pipette to add some water to dampen the sand. Then make a tunnel about 5 cm deep with the pipette or a stick. This makes it easier for the ants to start digging from there. If the tunnel collapses, add a bit more water to stick the sand together.



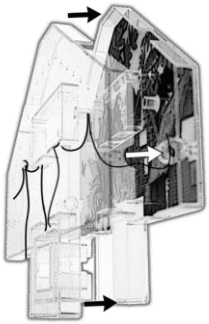
5. Put the large and small background pictures in the rear upper panel.



6. Install the side tubes on the front upper panel. Connect short strings from the left pole to the side tube, the lower opening and the centre cavity as shown. Repeat on the right pole. Do it by measuring and cutting an appropriate length of the string. Tying a knot at the end will help to hold it in the slot of the centre cavity and the side tubes. These strings allow the ants to easily get to the food chamber.

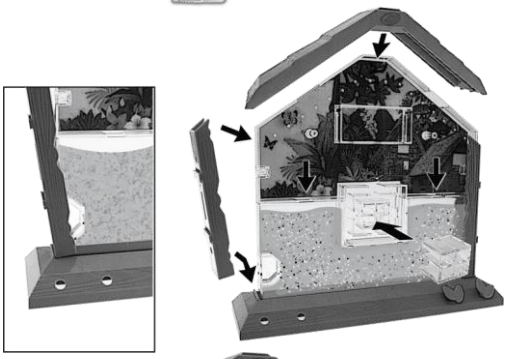


7. Carefully combine the front and rear upper panels.



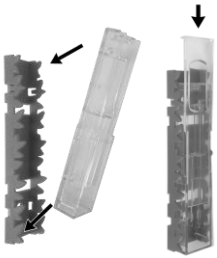
8. Install the upper panels onto the base. Place the roof on the top.
9. Install the side walls on both sides. Move the sand panel a little to make a slot in the base and insert the side wall into the slot. Align the holes with those of the upper and lower panels. Make sure all parts tightly fit together.

10. Install the food chamber.

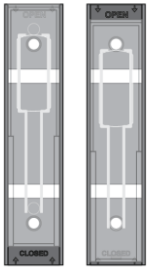


11. The ports on both sides allow you to transfer ants inside or add water with a pipette. Use the leave plugs to block the ports when not in use.

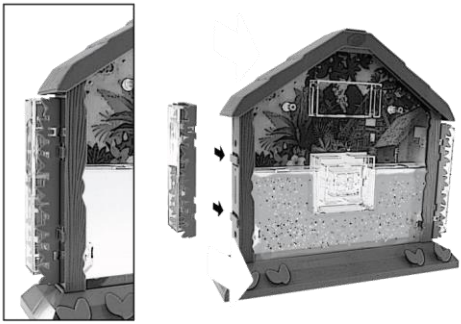
12. The ant pods help you collect and transfer the ants to the Ant Village. Assemble it by sliding the ant pod into the grass frame. The holes need to be aligned. Install the ant pod cover.



13. Push the ant pod upwards to close the holes. Press it down to open.



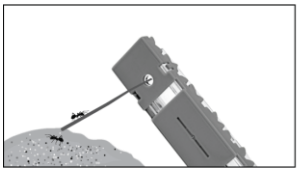
14. The two ant pods can be attached to each side of the main unit by matching the slots on the back of the grass frame with the ridges on the side wall. Remove the leave plugs and slide it in place as shown.



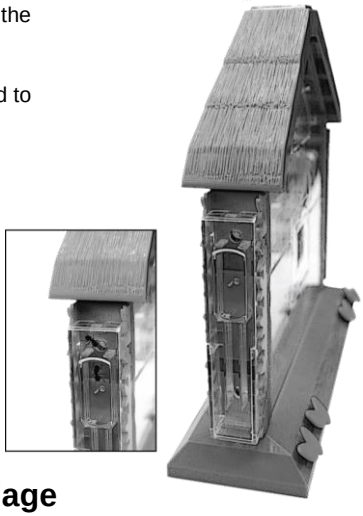
Note: Never grab the Ant Village by the roof because the main body will fall apart under its weight. Always hold the base to move the unit.

Catching ants:

1. Ants to be kept in the Ant Village should be bigger than 5mm, otherwise they can escape through the small gaps between the parts.
2. Ants can be bought from many ant suppliers or you may try to catch some ants in gardens or backyards.
3. Use the ant pod to attract the ants to go inside.



4. Place some ant food inside the pod. One or two drops of honey or sugar solution will do.
5. Use a stick or stirring rod to guide the ants into the pod.
6. Close the pod to keep the ants from escaping.
7. Transfer the pod to the main unit. Open the pod to bring them in.



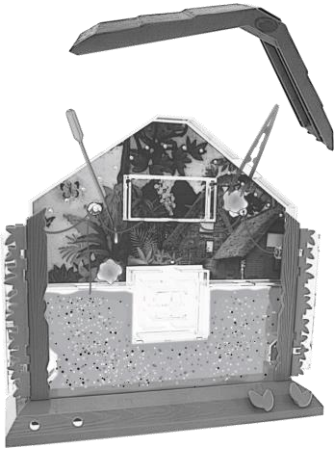
Types of ants suitable for Ant Village

It is recommended to start with 20-30 ants. Worker ants would be fine. They are the most common members of a colony. They have no wings and are small to medium size compared to others in the colony. However, worker ants cannot breed. You can gain experience and learn more about them. With more experience, you can bring in a queen ant and build a larger colony.

Taking care of your Ant Village

Water

Just like us, ants need food and water to survive. Water is vital to their health. They can live without food for several days but they will die overnight without water, Add water daily using the pipette. You can add it through the top window (after removing the roof, but replace it back quickly to prevent the ants from escaping), or through the service ports on both sides. Drop water directly on the sand surface or in the sand using the lower service ports. You can also dampen the strings or add a dampened cotton ball on the sand.



Food

The food chamber at the centre allows you to feed the ants conveniently. You can put small pieces of dry food inside. Remember to replace it back quickly otherwise the ants may escape through the centre opening.

Honey - One part of honey diluted with one part of water

makes good food for the ants. Store the solution in the refrigerator after use. Use the pipette to add drops to the strings or on the sand or in the food chamber. Do not feed too much each time. Watch ants feed to determine how much they need. If they consume all, try feeding them more often.

Fruits – Cut small bits of fruits or vegetables and put into the food chamber every three to four days.

Dead Insects – A good source of protein for ants is dead crickets from pet or bait shops. Cut them into small pieces before putting in the food chamber. One cricket every two to three days is sufficient for up to 20 ants. Watch them feed to assess the amount and timing.

Cleaning

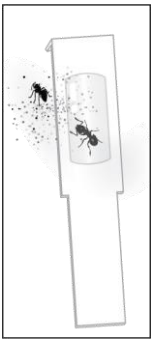
Use tweezers to remove any excess/old food particles and trash to avoid mould.

Location

Find a place where the ant village will not be disturbed. It should be out of the sun and the temperatures do not fluctuate greatly. Ants do best at warm temperatures above 20°C (68°F). They become inactive when temperature falls below 10°C (50°F). Block the sand cavity from light using paper or cardboard after finished viewing or feeding because they like to work in the dark. They will keep away from bright places and it will be less likely to find them when the sand cavity is always exposed to light.

Handling

Do not move it around often. Otherwise the structures and tunnels will cave in. Strong vibrations may even destroy the ant colony. If it needs to be moved, handle it carefully by holding the base and reduce vibrations.



You can use the ant pod cover as a magnifier for studying the ants in detail.

Ants should be handled carefully with a pair of tweezers that will not crush them. You can also get an ant to crawl up a piece of paper or a pencil/stick, move it to the ant pod or where it is going, and then shake it off carefully.

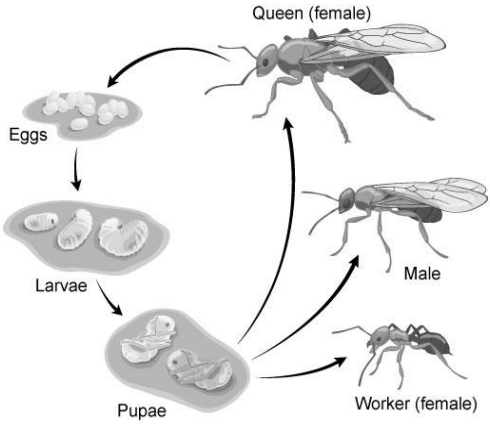
Ant Facts:

Ants are insects with social nature. They live in group of thousands of individuals. The group of habitat is called a 'colony' There are 4 stages in an ant's life.

Egg – Larva – Pupa - Adult

It starts with an egg. Ant eggs are tiny, soft and in oval shape. Unfortunately, not all the eggs can become adults because some are eaten up by their nestmates for more nutrition.

An egg then develops into a worm-shaped larva which has no eyes or legs. Larvae consume a lot of food and they rely on adult ants to feed them frequently. With so much nutrients, they grow fast and molt whenever body size changes.



When a larva grows into a certain size, it metamorphoses into a pupa. In this state, they rest and reorganize. Their appearance is getting more like adults, except their legs and antennae are still folded around their bodies. Their colour changes from whitish to darker. The pupae are often uncovered and naked. But for some species, the pupae build a cocoon for protection.

At the final stage, the pupa turns into an adult. Their colour is getting darker as they age. From egg to adult, it can take a few weeks to months, it varies from species and different environment. Like all insects, ants are full-grown after they become adults. It is because their exoskeletons prevent them from growing bigger!

In the world of adult ants, there are 3 social classes: queen, worker or male.

Queens are females that were more well-fed when they were larvae. As a result, they grow in larger size than workers. They are responsible for laying all the eggs in a colony. In some species, the eggs can be up to millions! With wings, the queens fly and find a mate(s), but they tear their wings off before building a new colony. The life span of a queen can be up to decades under the right living conditions.

Workers are females that were fed less at larvae stage. Reproduction is not their job, but they work for the livelihood by taking care of the brood, constructing and cleaning the nest, and gathering food. They don't have wings like the queens and they normally live for several months.

Males have wings so they can fly to mate with queens. They live for a few weeks, longer than workers but shorter than queens. They never help with any chores in the colony.

Fun facts about ants

- It is estimated that the total weight of all the ants in the world is the same as, if not larger than that of all humans.
- There are over 12000 different species of ants, more are being discovered, especially in the tropics. They can be found on every continent except Antarctica and a few remote islands.
- All worker, soldier and queen ants are female.
- The largest ant colony ever found was over 6000 Km or 3750 miles wide.
- Some ants can carry 10 – 50 times their own weight.
- The average life expectancy of an ant is 45-60 days. Queen ants are the longest living of all insects, living for up to 30 years.
- Ants have two stomachs, one for themselves, and one to share food for others.
- Ants move an estimated 50 tons of soil per year in one square mile.
- Fire ants cause an estimated $5 billion worth of damage in North America per year.
- Ants and humans are the only creatures that farm other creatures.
- Ants communicate mainly using chemicals, which they sense with their antennae. They release pheromones with specific messages, such as "Follow me to food!" or “Attack the intruder!”. In addition, nestmates recognize one another by chemicals on their bodies. The queen is coated with a unique blend of chemicals that advertises her presence. Ants can also use touch and vibration to communicate.