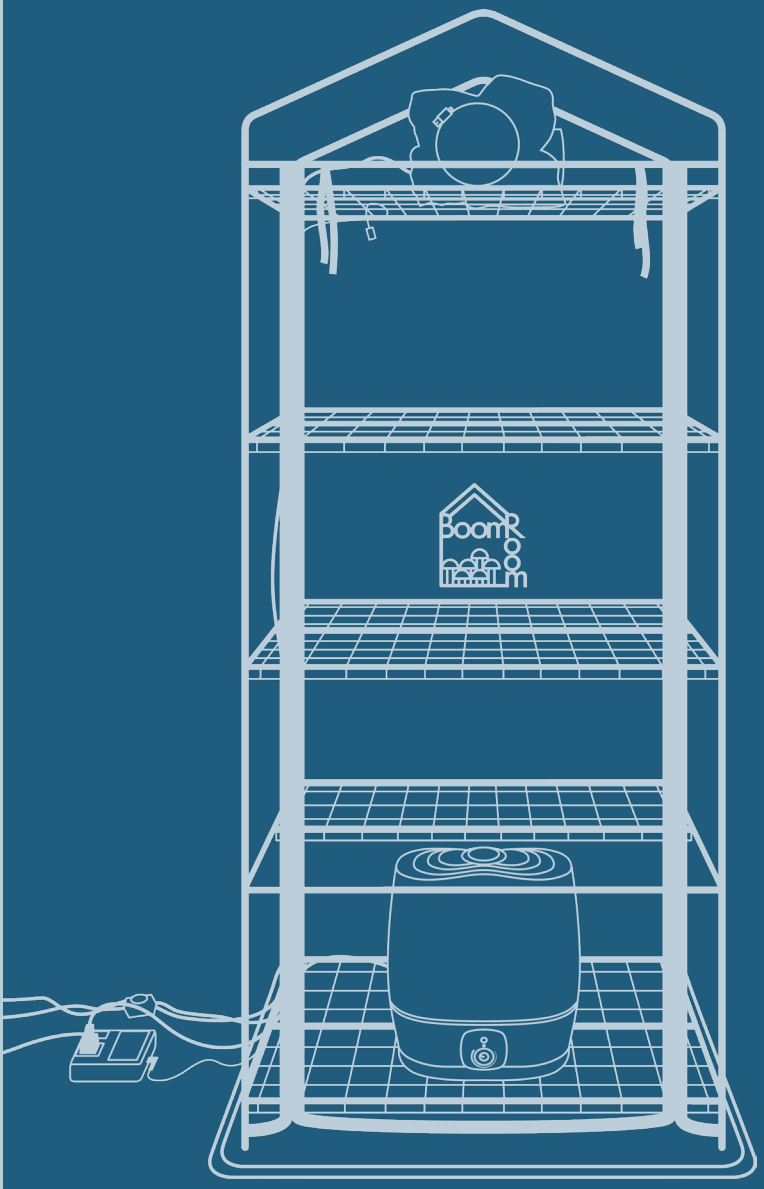
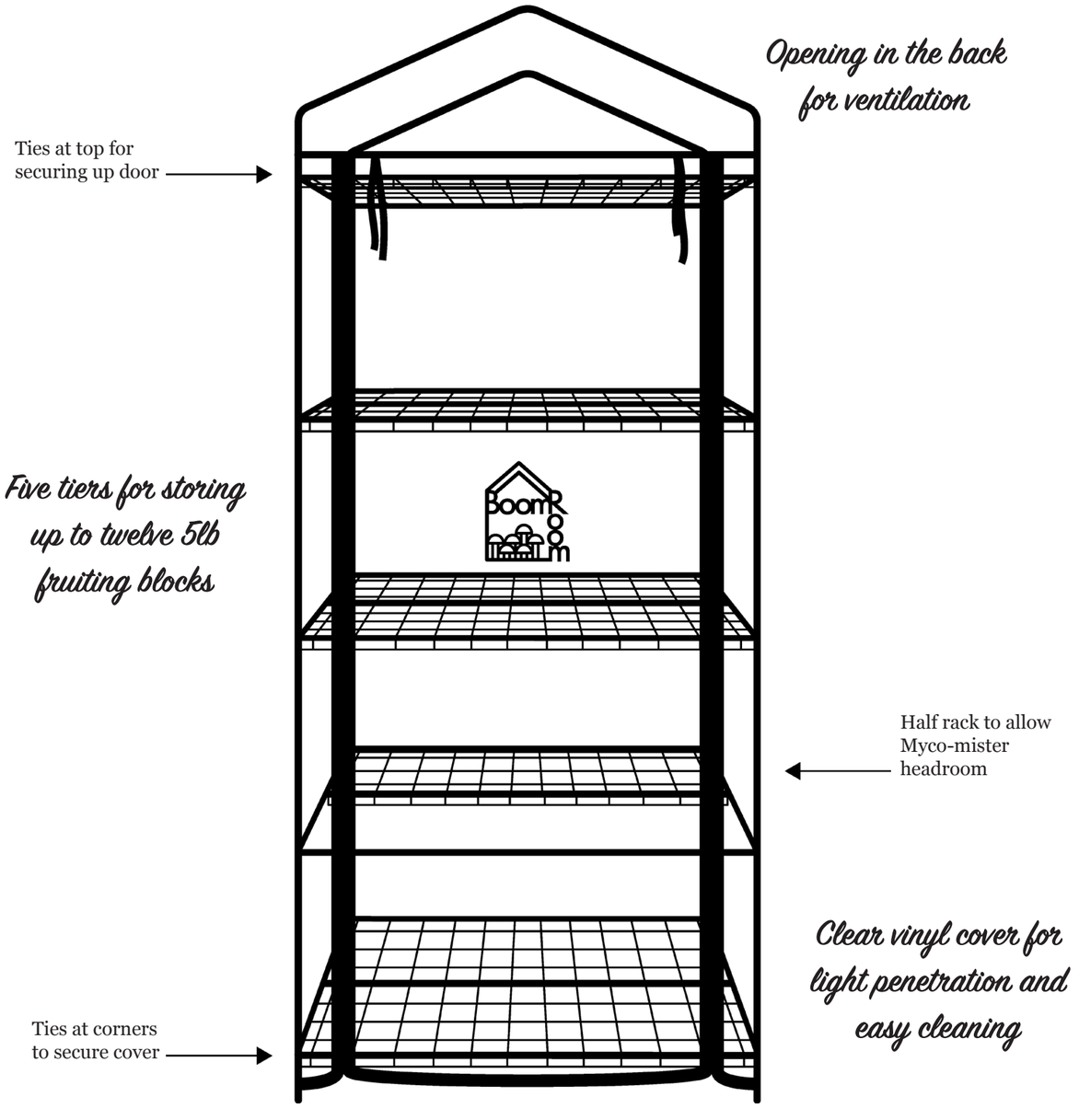
NORTH SPORE

BoomRoom

SETUP AND GROW GUIDE



VISIT NORTHSPORE.COM FOR VIDEOS AND FURTHER READING!

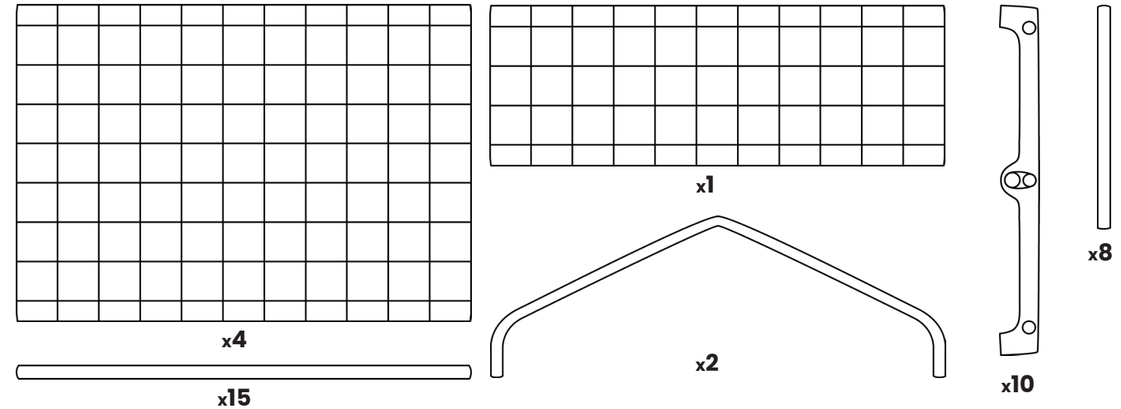


Thank you for purchasing a North Spore BoomRoom! We thrive on the support of our customers and want to support you every step of the way. Inside your BoomRoom Setup and Grow Guide you will find all the information you need to get started. As always, if you have any questions don't hesitate to reach out!

All of the components in this guide are included with the complete BoomRoom kit. If you purchased a BoomRoom tent and are interested in any of the accessories they can be purchased separately at NorthSpore.com.

PRIOR TO ASSEMBLY READ THROUGH SAFETY, WARNINGS AND PRECAUTIONS ON PAGE 10.

BOOMROOM PARTS



NOTE: You will also need a Phillips head screwdriver to assemble your BoomRoom.

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Considerations For Placement Of Your BoomRoom

LIGHT
We recommend setting up your tent in a room with a window so that your mushrooms will receive indirect light. If that is not possible any form of artificial lighting can be used; you do not need a specific type. We just recommend that it be on for 12 hours a day, and a digital timer can assist with automating this process.

TEMPERATURE
The fruiting range for most mushrooms lies somewhere between 55-80 degrees, with some exceptions. Mushrooms can grow outside of their fruiting range, but it is an important consideration for placement of your tent as the temperature in the grow tent will be the same as the environment in which it is placed. It is a good idea to select species that have fruiting ranges closer to the temperatures you can provide if your options are limited.

VENTILATION
If you put your tent in a living space we recommend setting up your tent near a window so that it can be vented outside. The filter will stop the majority of but not all spores from entering the air in your environment. If you have allergies or asthma, we do not recommend growing in a living space unless you can vent out a window. Ducting has been included with your kit for this purpose.

ASSEMBLING YOUR BOOMROOM

1. Place your Spore Floor down in the desired location of your grow tent.
2. Fit three long tubes between two of the plastic connectors and place on your Spore Floor (Fig. A). Middle support should be placed in the top opening (Fig. B). Ensure all tubes are all the way in their holes, twisting can aid in getting them in farther. This will ensure the structural integrity of your tent!
3. Place four of the short tubes in the openings at the four corners (Fig. C).
4. Repeat until you have reached the top of the unit.
5. Insert the top frames (Fig. D).
6. Place the shelves across the supports, half shelf spanning middle to back support on the second shelf from the floor.
7. Unzip the cover and fit it over the frame with the opening at the front. Secure cover to frame using ties at the bottom corners. Ties at the top can be used to secure the door up during next steps.

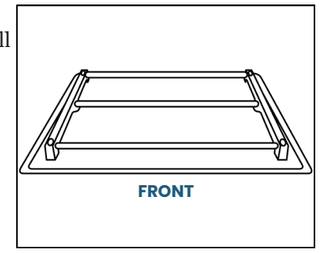


Fig. A

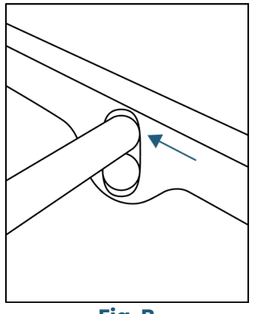


Fig. B

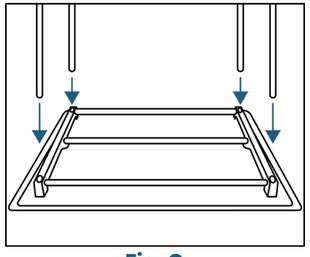


Fig. C

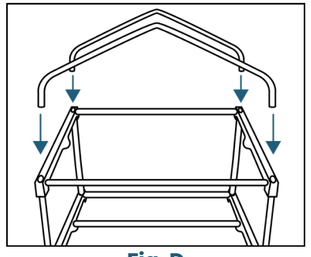


Fig. D

MYCO-MISTER ULTRASONIC AND HUMIDITY CONTROLLER SET-UP

1. Remove the top from your Myco-Mister Ultrasonic Humidifier and place the base, controls facing front, at the front of the shelf closest to the floor.
2. Unscrew the cap on your Myco-Mister to fill (Fig. E) Place the water chamber back on the base, plug in the unit and turn level to max (Fig. F). Press the LED switch on the front of the unit in order to turn on the blue gauge on the right side of the unit. This is where you can monitor your water level. A manual with operating instructions is included with your Myco-Mister Ultrasonic.
3. The Willhi humidity controller works by cycling the Myco-Mister on and off in order to maintain the set humidity. A manual with operating instructions is included with your humidity controller. Set up your humidity controller on the outside of your BoomRoom. Place the sensor for the humidity controller so it hangs down from the top shelf, towards one side but near the middle front to back. This will ensure a more accurate reading, as the sensor isn't in direct line of the Myco-Mister or the FAE Fan. It is also important it is placed away from the Myco-Mister as it could sustain water damage over time. We recommend running all cords for the unit out of the back left or right corner, depending on where your power source is located.

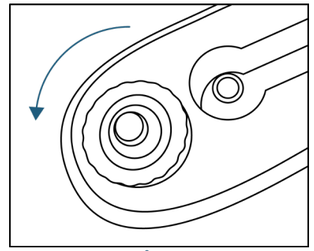


Fig. E

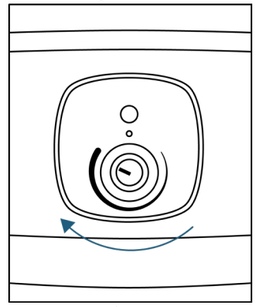


Fig. F

VENTING YOUR BOOMROOM

1. Identify the intake and exhaust ends of your FAE Fan. The intake end of the fan is to the right side of the North Spore logo, and the exhaust end is to the left. You can turn on your fan for confirmation if you are unsure. A negative pressure setup will be created by exhausting outside of the tent, meaning air and therefore excess CO_2 is pushed out.
2. Place your filter over the intake side of the FAE Fan and use the included hose clamp to tighten around the unit using a Phillips head screwdriver. Place the FAE Fan unit on the top shelf of your BoomRoom with the filter facing the front (Fig. G).
3. Pull the exhaust end of the FAE Fan unit out of the hole located on the back of the tent. The fit will be snug to ensure a tight seal (Fig. H). Included with your FAE Fan are operating instructions.

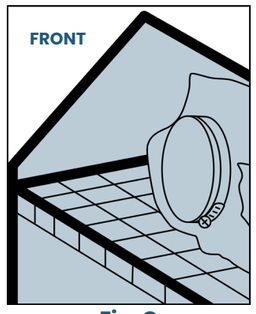


Fig. G

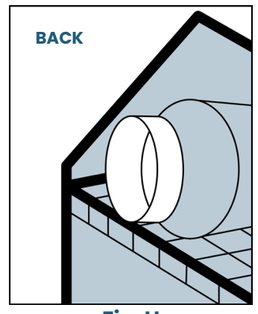


Fig. H

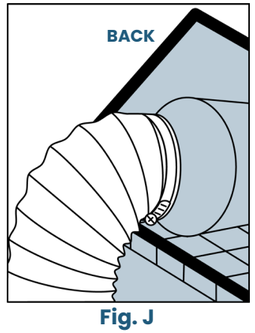


Fig. J

OPTIONAL STEP: VENTING YOUR BOOMROOM OUTSIDE

1. Extend one end of your ducting and place your second hose clamp around it. Place the ducting around the fan unit. A second person can be helpful during this step to keep the fan in place. Remove the filter to improve the quality of the duct.
2. Use a Phillips head screwdriver to tighten the hose clamp around the unit. Check to ensure a secure fit (Fig. J).
3. Foam board insulation can be cut to fit an open window. Cut a hole in the insulation to thread the duct through to outside.

You are ready to get growing!

Your BoomRoom can hold up to twelve 5lb fruiting blocks. We recommend placing two behind the Myco-Mister, two on the half shelf and four on the next two shelves. Do not place any fruiting blocks on the shelf with your FAE Fan. Below you will find information on what your mushrooms need for proper growth and how best to provide it using your BoomRoom accessories!

GROWING

For the majority of mushroom species all that is needed to initiate fruiting is a change in environmental conditions. Fresh air, humidity, light and temperature are the environmental changes that trigger fruiting from fully colonized substrates.

FRESH AIR

Like humans, mushroom mycelium exhales CO_2 and inhales oxygen. It will also suffocate if not given plenty of fresh oxygen rich air to breathe. When mycelium is colonizing a substrate the CO_2 concentration surrounding it is very high. As the mycelium reaches the edge of the substrate it senses a lower CO_2 concentration which signals it to produce mushrooms. Sufficient fresh air exchange in your BoomRoom is essential as the mycelium must sense this lower CO_2 concentration (and therefore higher oxygen concentration) in order to trigger growth of the mushrooms.

Dialing In Your FAE Fan

Higher temperatures and a greater amount of fruiting blocks will contribute to a higher concentration of CO_2 and therefore a need for a higher fan speed. Adjusting the fan speed correctly may require some trial and error. A CO_2 meter can remove the guesswork.

Dialing In Your Myco-Mister Ultrasonic

A relative humidity between 80-90% is recommended as most species of mushrooms will fruit well within this range. Your humidity controller works by cycling the Myco-Mister on and off in order to maintain the set humidity. The water level can be monitored at the blue gauge on the right side of the unit. You will find that with a faster fan speed or in cooler temperatures your Myco-Mister will require more frequent refilling.

HUMIDITY

The mushroom fruit body you are trying to grow is primarily composed of water. For this reason mycelium will wait until rainfall or humid conditions to produce mushrooms. This is why proper moisture content within your substrates and a humid growing environment are essential for high mushroom quality and yield. Even short dry spells can cause mushrooms to abort their growth.

LIGHT

Unlike plants, mushrooms don't use light as an energy source to grow, but they do need some light to grow properly. Mycelium uses light to sense it is at the edge of its growing substrate and that it is a suitable environment to produce mushrooms, similar to how a decrease in CO_2 at the edge of a growing substrate is a trigger for fruit body development.

It is commonly believed that mushrooms prefer to grow in the dark. If actually placed in complete darkness mushrooms may never fruit and those that do will grow elongated or misshapen and won't develop the color typical of their species. Mushrooms tend to grow in darker places not because they don't need light, but because those places tend to have more ambient moisture.

Indirect light from a window or artificial lighting can be used. If you use artificial lighting we recommend it be on for 12 hours a day, and a digital timer can assist in automating this process.

TEMPERATURE

In natural conditions many mushrooms fruit in response to seasonality, using a cold snap to know the growing season is coming to an end and there is a limited amount of time to produce mushrooms. Because of this, the majority of mushrooms grow better in relatively cooler temperatures, but this is somewhat species dependent. When cultivating mushrooms indoors, the ambient temperature of your setting is an important variable to consider.

The fruiting range for most mushrooms lies somewhere between 60-80 degrees with some exceptions. It is a good idea to select species that have fruiting ranges closer to the temperatures you can provide if your options are limited.

INTERACTIONS

Environmental factors influence one another and have an effect on your growing conditions, and knowing some of these interactions can be helpful in dialing in optimal conditions.

When you are growing in higher temperatures, your mushrooms will grow faster and therefore have an increased rate of CO_2 production. In this instance we recommend a higher fan speed for ventilation. Higher temperatures also hold more humidity, so you might find that after increasing your fresh air exchange there is an increased demand on the humidifier to maintain the correct humidity levels.

Colder temperatures require less ventilation, as less CO_2 is produced, but cooler air also holds less humidity and will therefore require more humidification.

HARVESTING

Unlike plants, mushrooms grow incredibly fast and over the course of a single day can reach and exceed their peak harvest time. Make sure to keep a close eye on your mushrooms so you don't miss the opportune time to harvest!

Looking for a few key indicators will help you determine when your mushrooms are ready to harvest. The general rule is that mushrooms should be harvested before their caps flatten or become concave. For mushrooms with a veil, when it just begins to break.

To harvest, reach your hand around the base of the mushroom cluster and twist. This motion should be enough to pop your mushrooms off the block. You can also use a knife or scissors if you prefer. Be sure to remove all of the fruiting body remaining on the block down to the myceliated sawdust to prepare for a second fruiting and prevent rotting and possible contamination.

A single mushroom can release billions of spores a day. In the humid environment of your grow tent the spores will stick to the inside of the fan housing and clog it over time. The filter will prevent most but not all of the spores from entering the fan housing. Although you can clean your fan unit, harvesting your mushrooms at the ideal time will not only prolong the life of the mushrooms, but also the fan and filters.

Growing mushrooms typically involves some trial and error. Although the basic needs are the same, they vary slightly from species to species and within different growing environments. Even veteran growers take time to dial in the successful fruiting of species new to them.

On these pages you will find some of the more common problems you may run into and what adjustments you might make to grow a successful flush, or get it right the next time around!

FUZZY STEMS

Primary Cause: Excessive CO2 and/or moisture

Possible Solution:

- Increase your fan speed or clean your filter to increase fresh air exchange.
- Lower the humidity setting.

BROWN OR CRACKED CAPS

Primary Cause: Not enough humidity, harvested too late

Possible Solution:

- Increase the humidity setting.
- Harvest your mushrooms earlier.

PALE FRUITING BODIES

Primary Cause: High temperature and/or low light environment

Possible Solution:

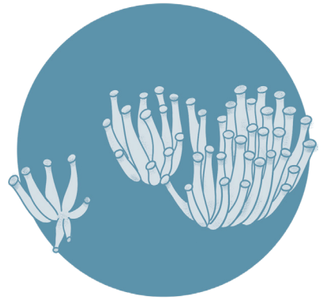
- Relocate your tent to a cooler location.
- Relocate your tent so it is within close proximity to ambient light or use artificial lighting

ELONGATED STEMS AND UNUSUAL GROWTH

Primary Cause: High CO2

Possible Solution:

- Increase your fan speed or clean your filter to increase fresh air exchange.



GROWTH STOPPED AFTER PINNING

Primary Cause: Aborted growth due to low humidity or a temporary drop in proper humidity

Possible Solution:

- Increase the humidity setting.
- Keep an eye on the water level in your humidifier to ensure it doesn't run out using the blue gauge on the right side of the unit.

NO GROWTH

Primary Cause: High CO2, high temperatures, substrate wasn't fully colonized, substrate too dry (more common with shiitake blocks)

Possible Solution:

- **Patience**
  Sometimes all your block needs is more time. Not all species of mushrooms will begin to grow within two weeks of being placed within your BoomRoom. If the block is not fully colonized it will take longer to fruit as it will not begin to do so until it has colonized through the entire substrate.

- **Soaking**
  Keep your block in its bag and submerge, often a weight is needed to keep the block under the water. Most species only require a soak of about 20 minutes, after which you can drain the water out of the bag and place it back in your BoomRoom. Keep an eye on the block while it soaks. Most kits are dense enough that they will stay intact but species with a more wispy mycelium, such as lion's mane, are vulnerable to breaking apart if left to soak for too long!

- **Cold shocking**
  Put your blocks in refrigeration temperatures (approximately 40°F) overnight or up to 24 hours. This step is especially helpful if you are growing shiitake or other late season mushrooms.

- **Relocating**
  If the temperature where your BoomRoom is located is too high some species of mushrooms may not fruit. Try relocating your BoomRoom to a cooler area.

Spores

If you put your tent in a living space we recommend setting up your tent near a window so it can be vented outside. The filter will stop the majority of but not all spores from entering the air in your environment. Particular species of mushrooms release more spores than others. If you have allergies or asthma we don't recommend growing in a living space unless you can vent out a window. Ducting has been included with your kit for this purpose.

- **Keep the BoomRoom and all of its electrical components away from children and pets.**
- **Children should never be left unattended around the BoomRoom or allowed to play with it, as it poses a potential suffocation danger.**
- **To avoid the risk of suffocation to animals or children dispose of the plastic bags immediately.**
- **Discontinue use of any electrical accessories if their power supply cords become damaged. Damaged power cords are an electrocution hazard.**
- **Do not plug in any of the electrical components with wet hands as this is an electrocution hazard.**
- **Keep the BoomRoom and all of its electrical components away from heat sources such as heaters, radiators, furnaces and direct sunlight.**
- **Turn off and unplug all electrical components before relocating them or your BoomRoom.**
- **Assemble in a clean and well lit environment with adequate surrounding workspace.**
- **Do not assemble if parts are missing, contact North Spore for replacement of missing parts.**
- **Turn off your Myco-Mister before removing the water tank for re-filling.**
- **Keep an eye on the water level of your Myco-Mister as it should not be on if the water tank is empty.**
- **Do not climb on or place more than 20 pounds weight on each shelf. Exceeding the maximum shelf capacity can damage the BoomRoom and create a safety hazard.**
- **Only use the BoomRoom for the purpose for which it was intended.**

North Spore's products shall be used only for lawful purposes. North Spore cannot and does not promise that its products will yield any particular results for you. North Spore will not be liable to you or to any other person for any damages of any kind in connection with the use of our products, and we make no warranties of any kind, including warranties of merchantability or fitness for a particular purpose, relating to or arising from the use of our products, except as required by law.

UNPLUG YOUR FAN, HUMIDIFIER, HUMIDITY CONTROLLER AND ANY OTHER ELECTRICAL COMPONENTS PRIOR TO CLEANING!

CLEANING YOUR BOOMROOM

Over time, the components in your BoomRoom will collect spores, so it's helpful to clean them every so often to avoid build up and prolong the life of the components. Consult the manuals included with your components for specific protocols as set by the manufacturer.

Clean all surfaces with a damp cloth and mild cleanser. Do not use bleach or abrasive products. Note that the FAE Fan can be partially disassembled; refer to the instructions included with your fan. After cleaning, the BoomRoom tent can be sanitized by spraying on 70% isopropyl alcohol inside and out.

Allow ample time for all of your components to dry before plugging them back into power.

FILTERS AND DUCTING

Filters should be cleaned more often to maintain high levels of fresh air exchange. Filters can be washed by hand and reused. Replace your filter every so often as filters will become worn with repeated use.

Ducting can be washed to prolong its life or replaced. Ducting does not have to be cleaned as frequently as your other BoomRoom components.

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