

# DEXTERITY II:

## A Personal Workspace

The goal of this project is to create a personal workspace that personifies dexterity. The purpose of the hand study is to think creatively about range of motion attributes. These attributes are a template for dexterity in design. A dexterous personal work space embodies **flexibility**, **versatility**, and **adaptability**, like human hands.

•This project is an exploration into ways architecture can **sustainably** interact with skill and grace while **responsively** accommodating the occupant, the guest, the passerby, and the environment.



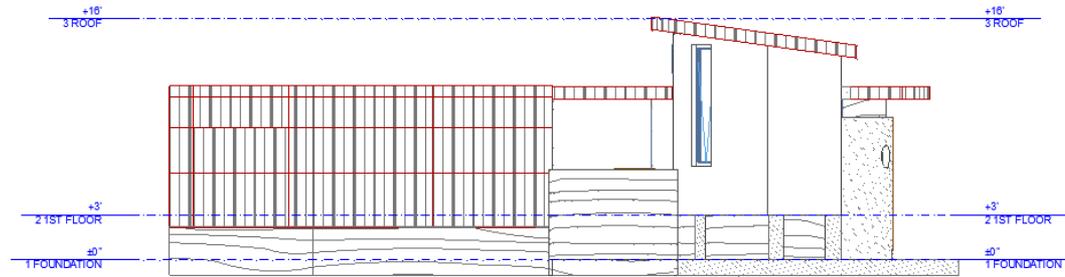
**The design is inspired by the human bodies capacity for range of motion. Dexterity is skill, grace, or adroitness in physical or mental movements.**

- How can a building be more like a body, or a body part like the hands?
- In what ways can architecture move?
- What are the benefits of movement?
- Is it possible for a building to be dexterous?
- Can a piece of architecture wave like a hand in a greeting?
- Can the articulation of the building planes from different views create the illusion of motion, like a wave hello?
- Can a building mimic the way fingers bend and assimilate these benefits?
- A hand can be both big and small, can this design be used in stationary structures?

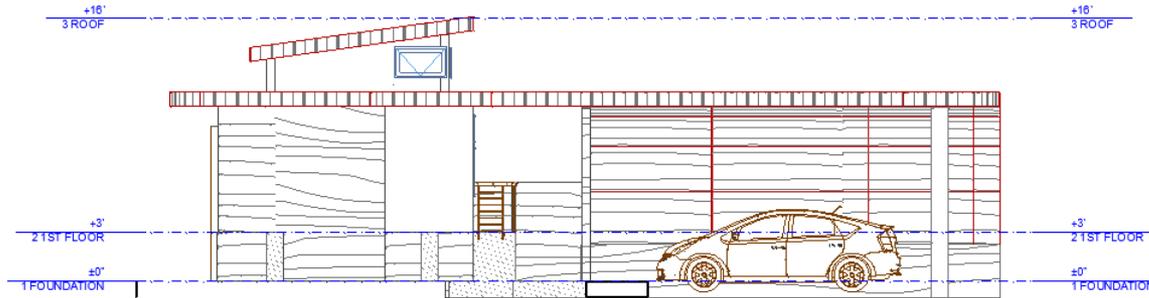




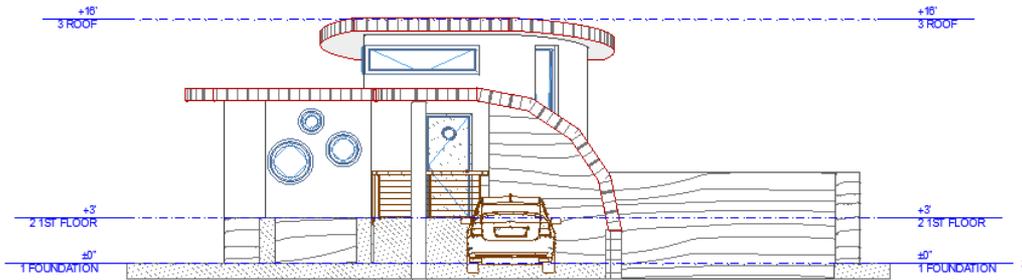
# ELEVATIONS



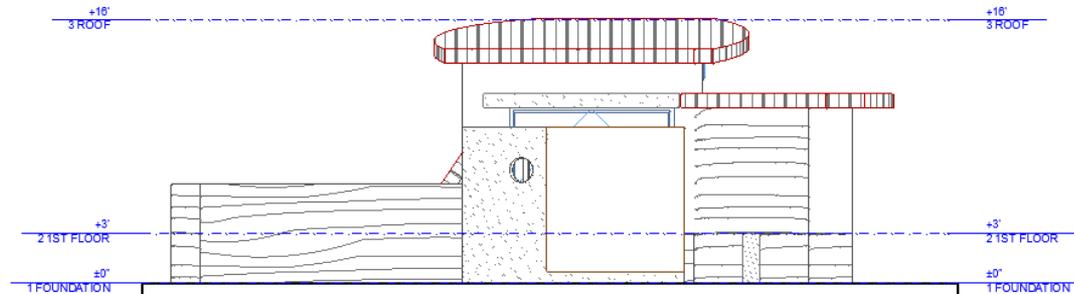
•East Elevation



•West Elevation

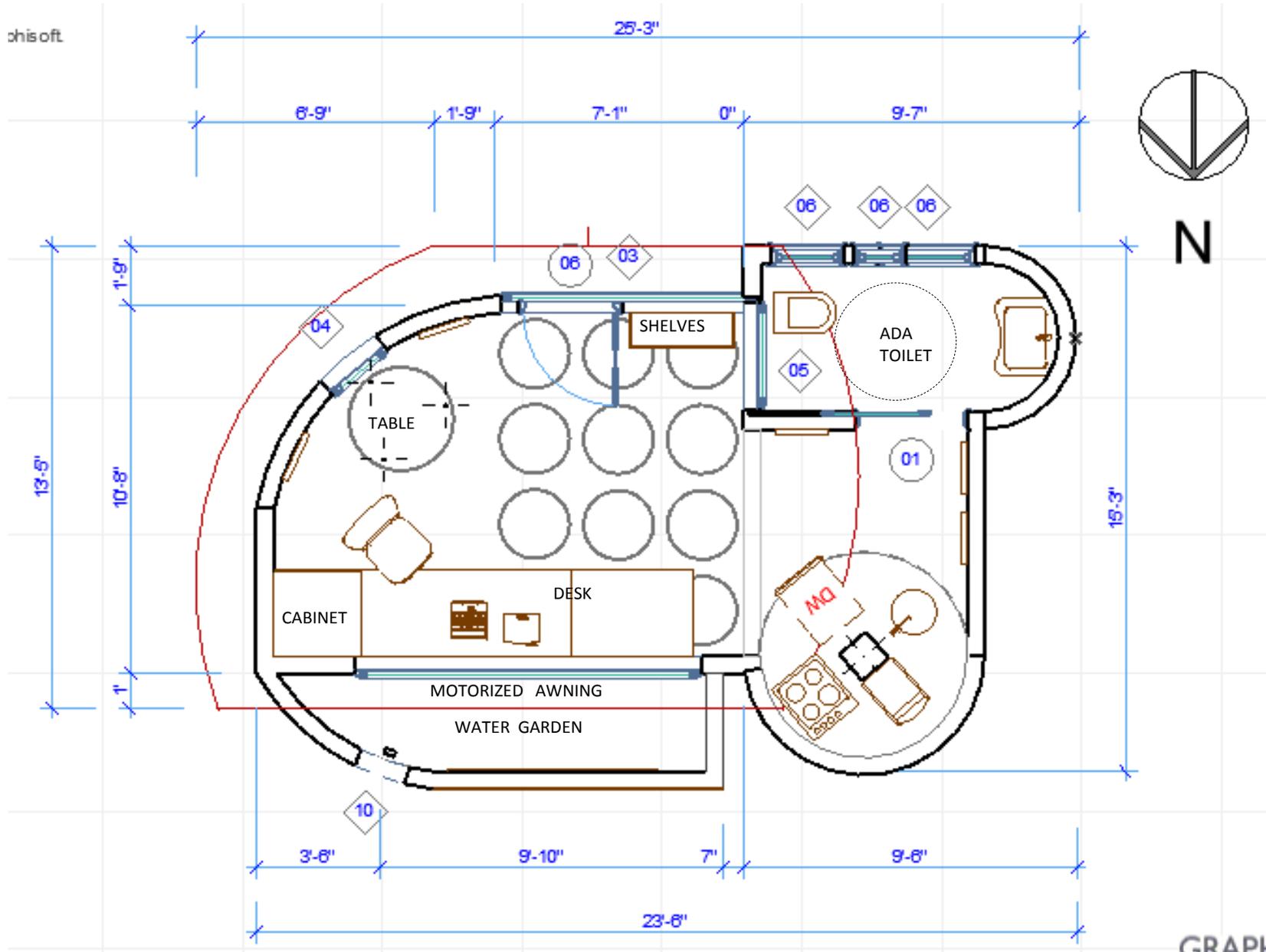


•South Elevation



•North Elevation

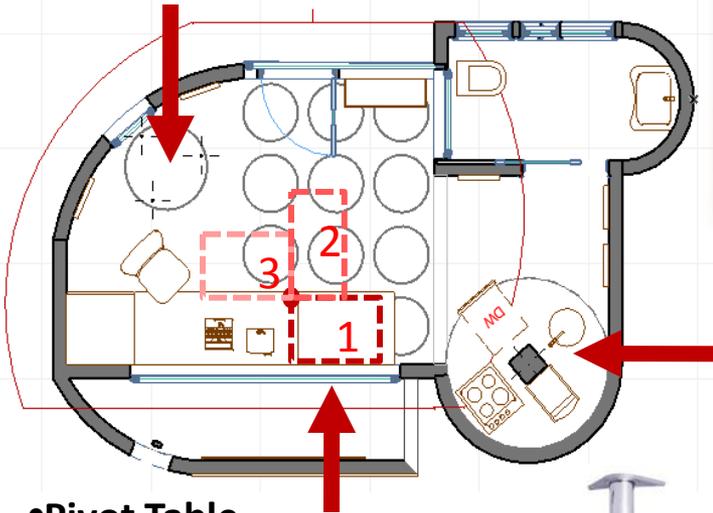
# FLOOR PLAN



# FLEXABILITY:

## • Cable Suspended Table

This 3 foot diameter table can be raised and lowered as needed for space and work surfaces. Raise the table to ceiling level to conceal work in process during meetings or dramatically lower a model during a presentation via the motorized suspension system.



## •Pivot Table

Three caster mounted legs and one anchored floor leg pivot point make this table rotate into three different configurations.

- 1 – Long Work Table
- 2- Conference Table
- 3- L Shaped Desk



## • 360 Kitchen

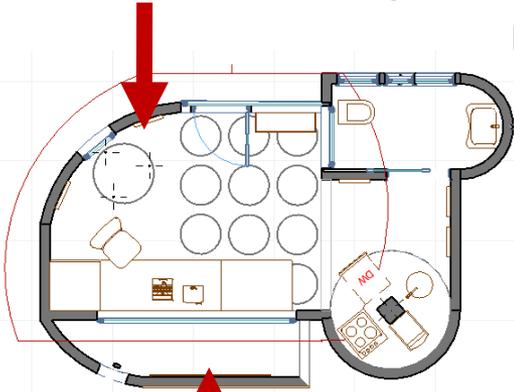
Access to the kitchen's various components is by rotating the central unit through 180 degrees, or the top unit which rotates through 360 degrees. It's completely lockable via the slatted sliding door and with such a small footprint (1.8 square meters).



# VERSITILITY:

## • Additional Seat Art

Wall hung chairs provide additional seating for presentations. A total of 5 chairs can hang on the wall in the office.



## • Garden Wall

Painted with reflective paint this wall can be used as a projection screen for presentations. The opposite side provides company signage space on the busy street. The wall creates a peaceful garden space complete with water feature viewable from the interior.



## •Awning

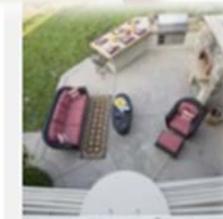
Shown retracted and in red the shell awning covers the garden area for better projection views during the day.



Seashell extended



SeaShell starting to retract



SeaShell retracted

# ADAPTABILITY:

## • T&G Particle Board Flooring

The interior flooring of the office is heavy duty tongue and groove particle board flooring. The boards are 2 feet 6 inches wide and 10 feet long allowing for ideal spacing of the in-floor drums. Floor can be finished reducing the need for additional flooring.

Appearance	Thickness	Length x Width (mm)	Applications
	25mm	3600 x 600	Interior all purpose flooring for use in domestic and residential buildings
	Termiflor 25mm	3600 x 600	
	R-Flo 25mm	3600 x 600	

Description  
Heavy duty live tongue, T&G particleboard flooring.



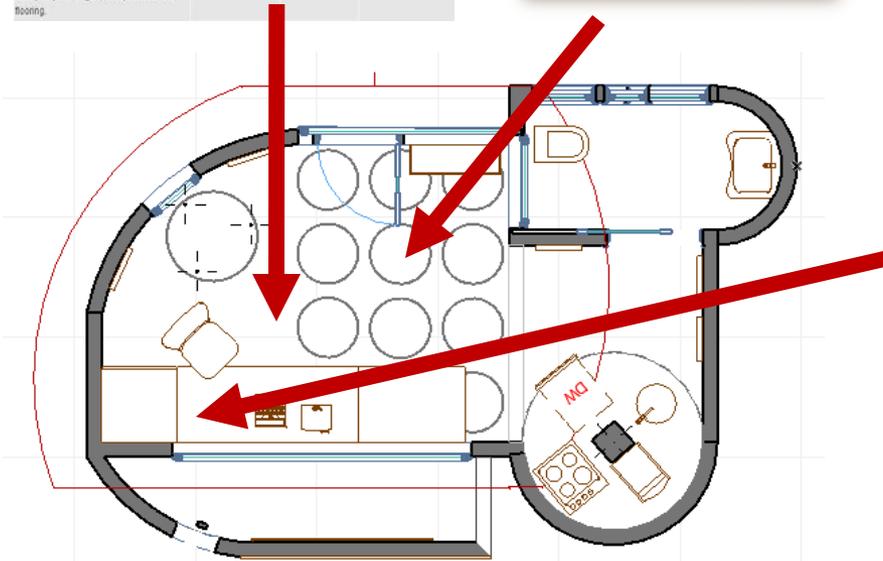
## • Recycled Refurbished Oil Drums

The circles on the floor of the below floorplan are 2 foot wide by 3 foot tall oil drums for storage. Adapting these drums into the structure not only recycles materials it also provides storage and structural support for the flooring. The pier foundation construction allows the drums to be placed above ground under the flooring. The lids are modified with lids cut from the particle board flooring and set flush into the floor. The trap style doors have recessed pull hardware that keeps the floor level and smooth as possible.



## • DIY Plan Holders

In the back space of the desk 6" holes inset with plan holder tubes. The flush mounted tubes put projects in process in easy reach and declutters a multi-project surface.



# SUSTAINABILITY:



- Solar Voltaic Cells on Car Port Roof



- Composting Toilet System



- Rainwater Harvest and Storage Tanks Capacity 300 Gallons



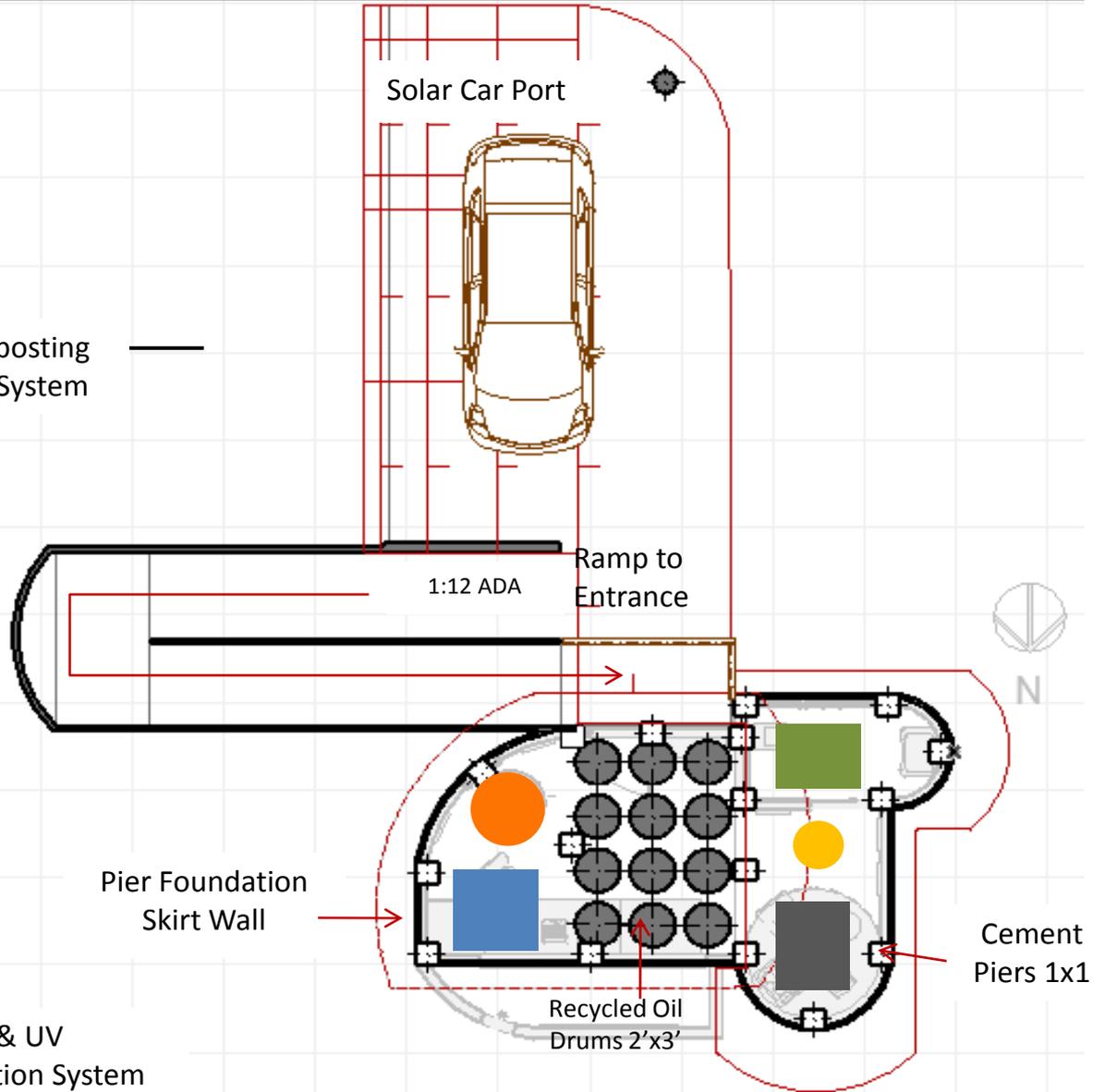
- Gray Water Treatment for Irrigation



- Solar Hot Water on Bathroom Roof



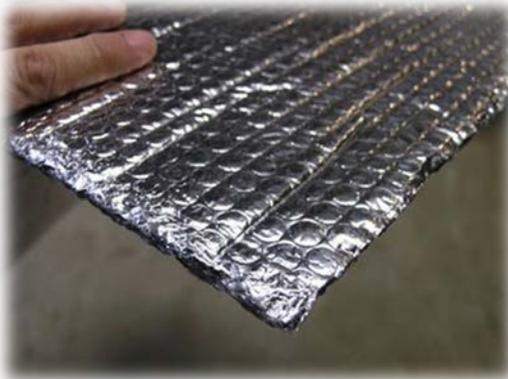
- Filter & UV Purification System for Potable Water



# RESPONSIBILITY:

## • Reflection Ceiling

Interior of the ceiling is insulated with a reflective air wrap that disperses the light from the south facing light monitor. Cable Track with LED bulbs are adjustable low energy additional light when needed.



CE RoHS



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## • Convection Cooling

Cool air is drawn from the water garden area via the ground level hopper transom. The operable light monitor allows warm air to rise and escape with aid of a fan.

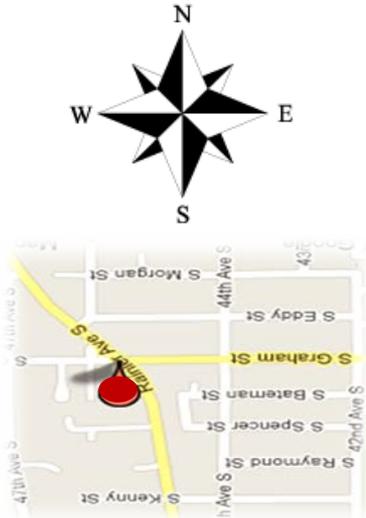
## • Gutter Filters

In line gutter filters provide first stage purification. A pump secondary filter and UV finish the purification process for potable water.

# SUITABILITY:

## • Location

Ideal location is a corner lot with north-south road on the west side of the building and a east-west road on the north side of the building. The design is well suited to a small corner lot that doesn't have easy access to public utilities.



## • Edible Landscape

Well trimmed fruit trees are ideal for the west and east sides of the building. In place of floral landscape annuals, basil, tomatoes and bush beans become beautiful and useful landscape.



## • South Side Advantages

South side carport roof is ideal for solar voltaic. The flat bathroom roof is ideal for solar hot water. Solar hot water can be used in conjunction with a radiator system to heat the space. The slim line blade radiator is a perfect choice as base board heat in the space.





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