Untitled Stacking

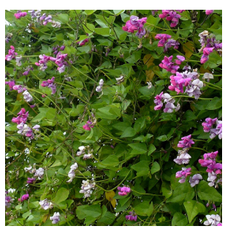
: Self-Assembly Planting Blocks

Our proposed garden aims to demonstrate how the coincidences and unavoidable consequences of our actions evolve through time. We present self-assembly planting blocks for visitors to stack or throw with minimally-guided rules of growth. Rather than an isolated walk in a garden, the garden experience turns into a collaborative game, fun play, and sensory encounters. The project will continue to adapt and evolve in response to participants' input, constantly re-establishing meaning between our intentions, structural changes, and environmental influences.

The translucent unit block has four curved legs, allowing it to be stack-interlocked. A space in the center for soil and seeds is secured by the simple interlock by modularized two parts. Once the seed germinates and the plant matures, the plant grows out of the module through four legs. In the summer, a new look of the planted structure slowly emerges, turning into an added structure by the plant. As the weather gets colder, the block becomes more revealing. After the season, visitors can bring the blocks to their home and the dispersed memory of the plants will reunite in the next installation.

A list of suggested plants:

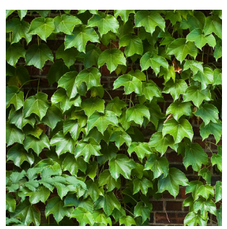
Vines are selected for their ability to climb and twirl around a structure. As they grow intertwined with a pile of Self-assemblely Planting Modules, plant materials will become an integral part of the structure. Plants can support wildlife such as bees and hummingbirds, as well as provide seasonal interest and ornamental value, depending on the species chosen. Pictures below show the possible plant materials to be used. However, plant species are subject to change based on the availability of plants at the time of installation.



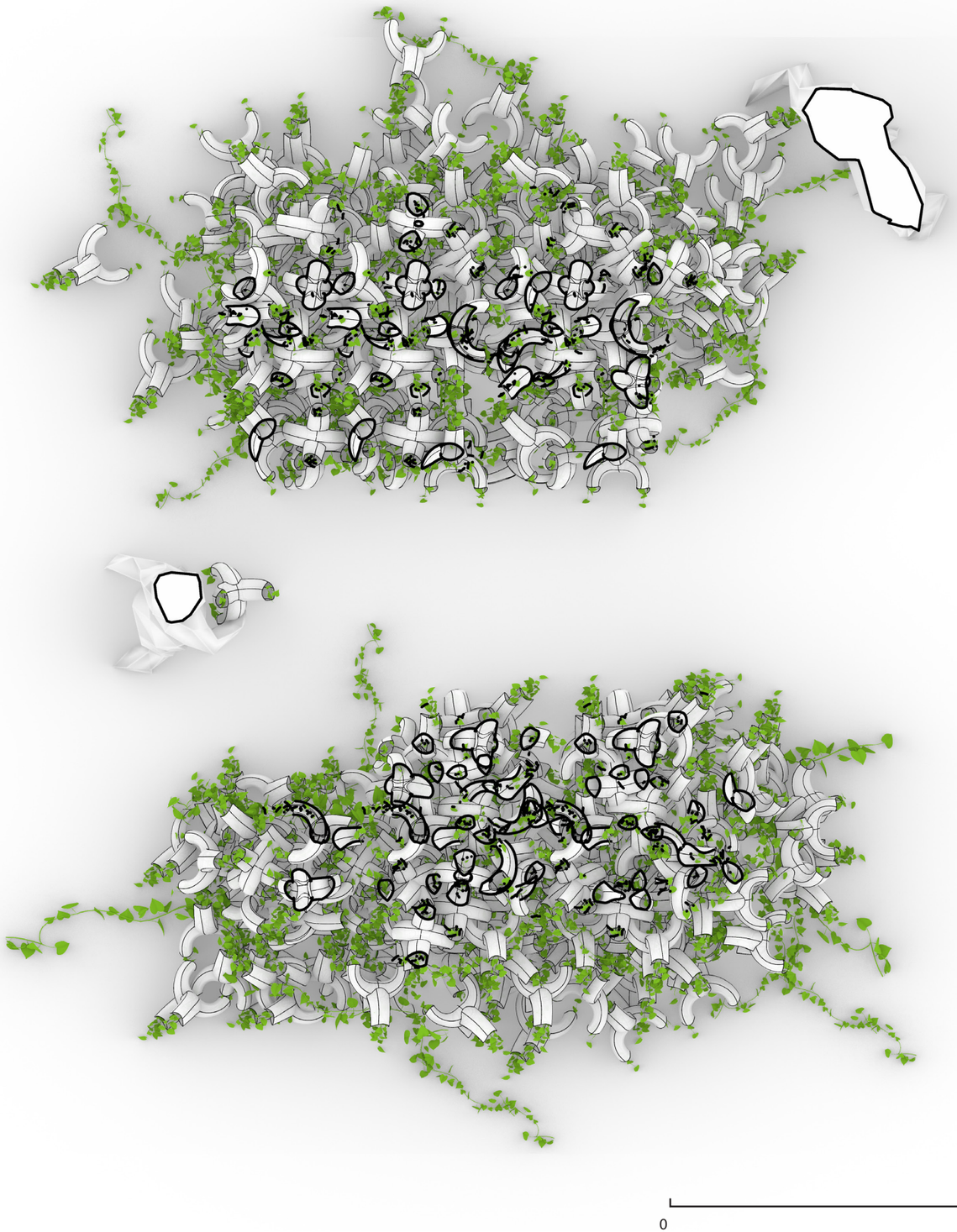
Lathyrus odoratus
Sweet pea

Clematis virginiana
Virgin's Bower

Parthenocissus quinquefolia
Virginia creeper

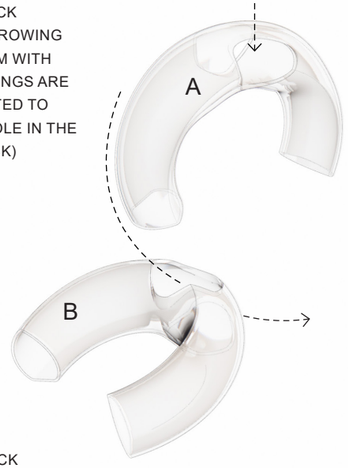


Hedera helix
English ivy

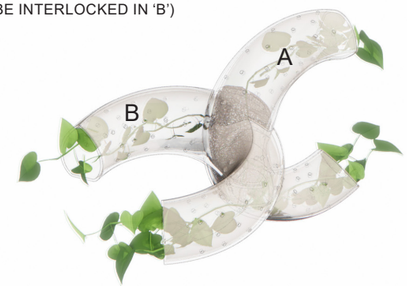


GROWING MEDIUM
AND SEEDLING

‘A’ BLOCK
(THE GROWING
MEDIUM WITH
SEEDLINGS ARE
INSERTED TO
THE HOLE IN THE
A BLOCK)



‘B’ BLOCK
(‘A’ CAN BE PUSH-ROTATED
TO BE INTERLOCKED IN ‘B’)



COMPLETED UNIT BLOCK WITH VENTILATION HOLES.
(A AND B CAN BE INTERLOCKED BY SIMPLE ROTATION AND THE GROWING MEDIUM IS LOCKED INSIDE. VENTILATION HOLES PROVIDE NECESSARY AIR CIRCULATION.)

A UNIT BLOCK IS ABOUT 185MM (W) X 185MM (D) X 220MM (H).

BLOCKS ARE 100% RECYCLABLE 3D PRINTED PETG USING LOW COST FILAMENT AND COMMON FUSED DEPOSITION MODELING 3D PRINTERS. THE PRINTED BLOCKS CAN BE USED IN THE OUTSIDE CONDITION WITH HEAT AND WATER.

Fabrication diagram

Elevation view of 12 units full-scale prototype with plant display (about 500mm tall, 3d printed blocks with 100% recyclable PETG)

The prototype blocks provide adequate light for the seedlings to grow, however for the potential installation, the block translucency and the size of ventilation holes will be further adjusted.

Rendering of about 1.8m tall portal frame.

Visitors can participate in stacking blocks based on the pre-structured portal frmae (minimally guided). Blocks will be provided to visitors. After the season, visitors can bring the blocks back to their home, maintain, grow, and bring it back to the future stacking.