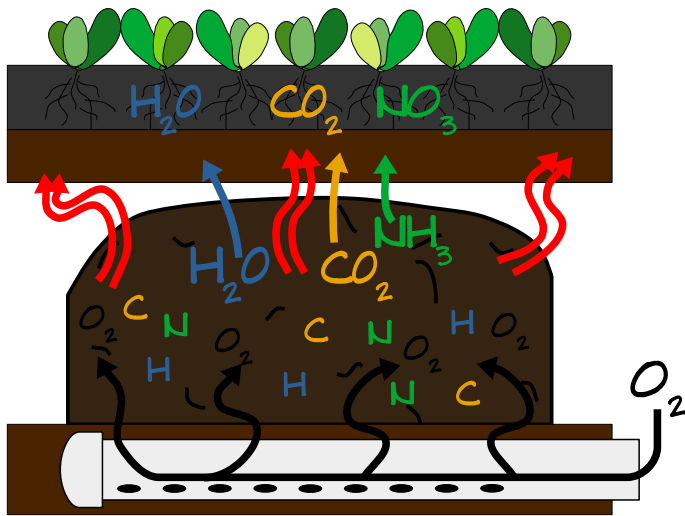


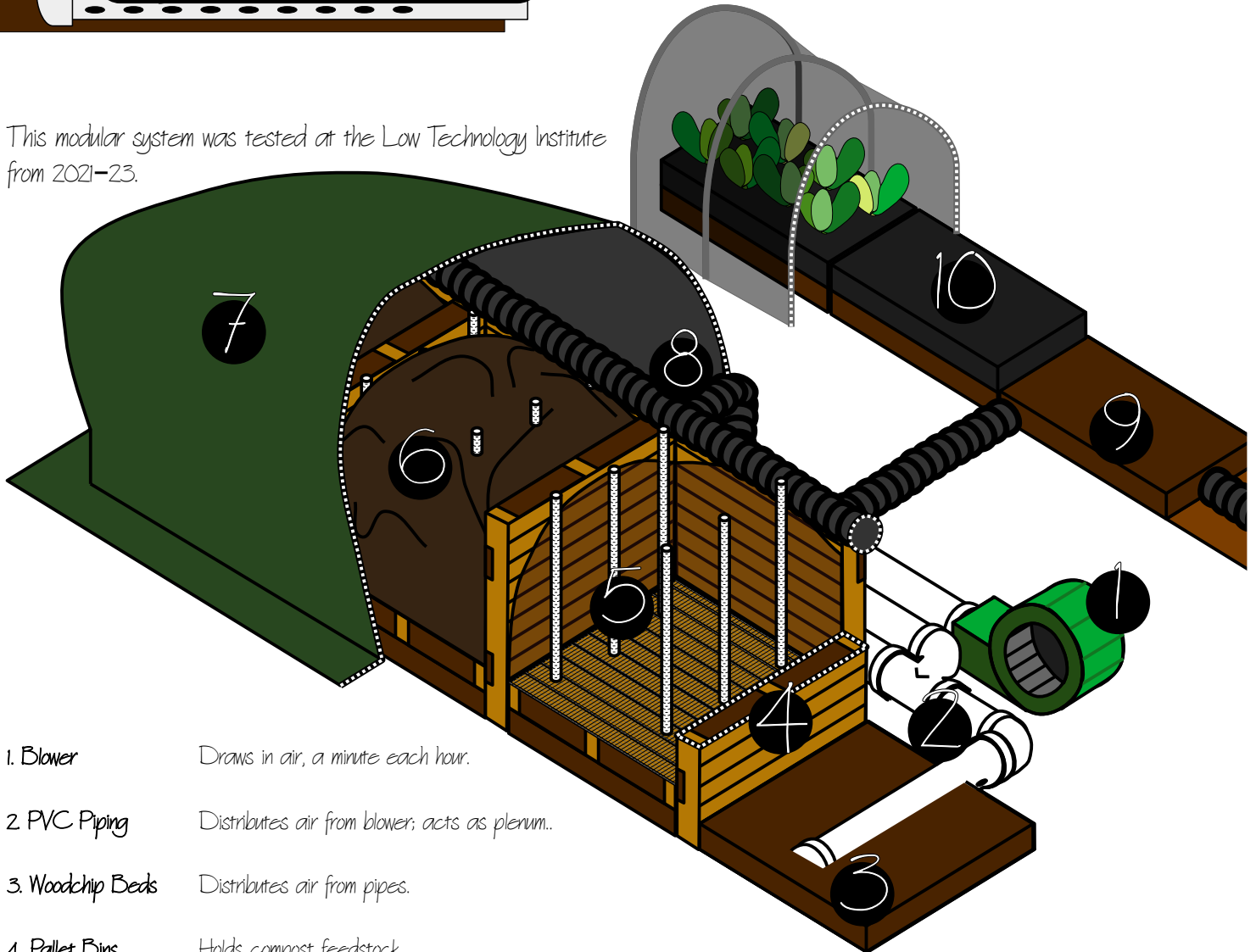
Full-Circle Compost System

Low Technology Institute / S. Johnson



- 4 Plants enjoy an environment rich in CO_2 , NO_3 , H_2O , and HEAT directly in their grow bed.
- 3 NH_3 is converted to NO_3 in a biofilter.
- 2 CO_2 , NH_3 , H_2O , and HEAT are given off.
- 1 H , C , and N , combine with O_2 as the compost breaks down.

This modular system was tested at the Low Technology Institute from 2021-23.



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|---------------------|---|-----------------------|---|
| 1. Blower | Draws in air, a minute each hour. | 8. Drain Tile | Accepts compost off-gasses and transmits it to grow beds. |
| 2. PVC Piping | Distributes air from blower; acts as plenum.. | 9. Woodchip Biofilter | Distributes air and holds nitrogen-friendly bacteria. |
| 3. Woodchip Beds | Distributes air from pipes. | 10. Grow Beds | Holds plants, which benefit from heat, moisture, and CO_2 from below. |
| 4. Pallet Bins | Holds compost feedstock.. | | |
| 5. Perforated Pipes | Exhausts gasses from compost pile. | | |
| 6. Compost | Provides organic materials to create heat, moisture, and CO_2 . | | |
| 7. Bladder | Impermeable tarp captures compost off gasses | | |