



BioPod

A contemporary
solution for
disposing of human
waste



+ WHY

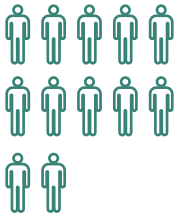
You're at a concert at Zilker Park in Austin, Texas. It's six o'clock, you're with your friends and the set you are watching is amazing. And then it hits. You've got to go to the bathroom. You make your way through the crowd and head to the nearest place of business hoping that they will let you use the restroom without having to purchase anything. That doesn't

work out. You turn around and see the daunting blue, extruded rectangle we all know and hate, the porta potty. You might as well get it over with. There's trash everywhere, you don't want to touch anything and you can see down that dark hole filled with waste. The experience leaves you feeling disgusting.

There are no acceptable solutions for disposing of human waste in situations that lack a conventional toilet.

35% DON'T PUT UP SEAT WHEN URINATING

80% HOVER OVER SEAT WHEN URINATING



40% Want no visibility when sitting and/or standing up



40% Want nothing exposed (when sitting down)



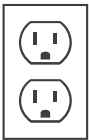
13% Wanting nothing exposed beneath the neck



7% Don't care if anything shows



Feces produces methane which can be harnessed as a biogas for electricity.



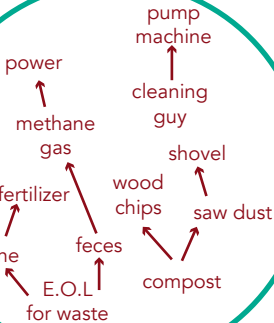
Urine is rich in nitrogen, potassium, and phosphorus, the three main ingredients in artificial fertilizer.



BRAINSTORMING

PORTABLE TOILET

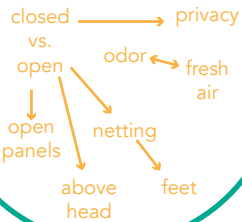
Grey Water System



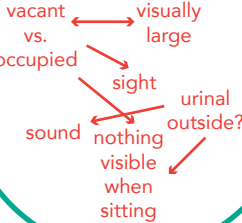
Cleanliness



Ventilation



Privacy



Space



FEATURE #1



The ribs on top of the outer shell have embedded LED's within the silicone. The LED's regulate how light or dark it is outside so that **when the sun sets, the LED's immediately turn on. No interaction needed.**

FEATURE #2



When approaching the toilet, the user turns around and steps on the weight distribution mat. While pressure is put on the mat, the hole that covers the waste opens to allow waste easy passage. When the user steps off of the mat, the hole closes back up. **This feature eliminates a touch point, encourages the user to be more respectful to the space and eliminates odors.** The seat is also re-designed so that "hovering" is much easier and less messy.

FEATURE #3



Most guys don't wait in line for toilets. They relieve themselves nearby because it's less time consuming.. However, that's a lot of bio material being wasted! Not to mention it is against the law to urinate in public. In order to solve this problem, **the back of the new structure has been retrofitted with a public urinal.** There are swinging partitions on either side to insure **guaranteed privacy.** This new feature **also helps separate bio materials and keeps them pure.**

FEATURE #4



Research showed that 70% of people use toilet paper or their sleeve to open and close the doors to public restrooms. **Now there is a pedal on either side of the door that lets the user open and close the door with their foot.** The mechanism is also hooked to the simplified signage on the outside of the door. **When opening the door from the outside, the signage automatically switches to occupied. The reverse occurs when you open the door from the inside.**

FEATURE #5



The new porta potty is designed for disassembly. There are four main parts: the base structure, the outer shell, the biomaterial tanks and the urinal. Each can stack on top of each other to make transportation much more efficient. **It is estimated that twenty four of these porta potty's can fit on a drop deck trailer.**

FEATURE #6



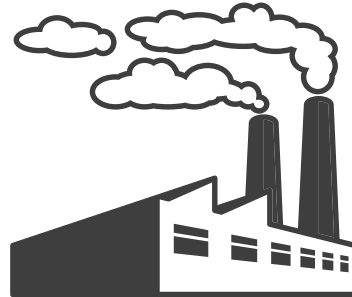
Urine can be used as fertilizer with nothing added but water. Feces can create biogas when heated and contained correctly. In the new porta potty, the storage containers beneath the toilet and urinal collect this biomaterial. **Instead of using a large suction pump to clean out the tanks, you simply have to unlock the containers, slide them out and take them to the nearest sanitation center or local farm.**



BIOPOD TEAM



Headquarter of BioPod,
design team, financial
team, management team



MANUFACTURER



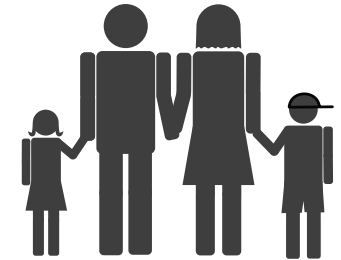
Manufacturing of each
pod, tooling designer,
prototyper, material
resources



DISTRIBUTER



The company that buys,
owns, stores, distributes
and maintains the
BioPods



END USER



The people using the
BioPod at construction
sites, festivals, party's and
weddings

NUCONCEPTS : COMPETITOR ANALYSIS

Main porta potty provider for companies in Dallas

OFFERS

- + "VIP restroom"
- + "Prestige restroom"



INCLUDES

- + Higher price for obvious or irrelevant features
 - EX. decorative pictures
 - slightly larger sinks
 - full-length mirror
 - in-use light
 - trash receptacle
- + Interior lights & trash receptacles should be *included* features without
- + extra cost
 - Things like full-length mirrors are unnecessary and do almost nothing to heighten user experience



THE CONSTRUCTION WORKER

Ed spends his days working on various job sites for JRT Consturction. His wife and 2 children reside in Garland, TX. so Ed's commute to and from work in downtown Dallas takes up a good chunk of his day. His daily duties range from securing permits through the city of Dallas, overseeing the different trades involved in construction to ordering the equipment that must be leased or purchased for each job. Ed is the go to person for any person on the jobsite who might have questions.

NAME	ED GUTIERREZ
AGE	38
CITY	GARLAND, TX.
OCCUPATION	GENERAL CONTRACTOR FOR JRT CONSTRUCTION
INCOME	\$80,000/YR.



THE EVENT COORDINATOR

Sara is an independent event coordinator who spends her days preparing for annual events that occur throughout Dallas. The Greek Food Festival of Dallas is a long-time client of hers. For this particular event, Sara books musicians, hires bartenders, and mainly ensures that everything within the festival sticks to permits and legal guidelines listed by the city of Dallas.

NAME	SARA O'NEILL
AGE	42
CITY	ADDISON, TX.
OCCUPATION	EVENT COORDINATOR FOR THE GREEK FOOD FESTIVAL OF DALLAS
INCOME	\$45,000/YR.



THE SENIOR MANAGER

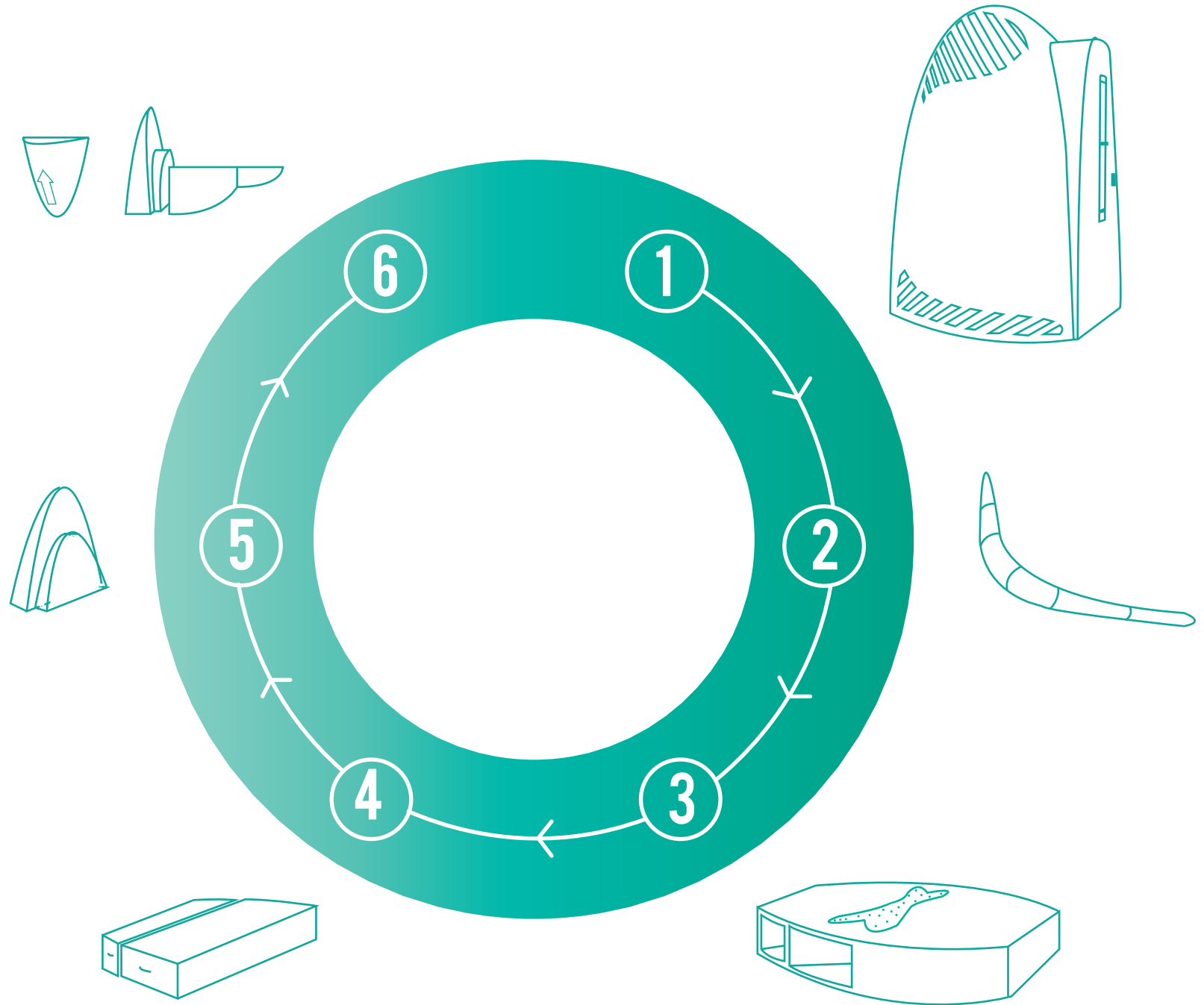
Mark manages basic operations at his family's waste disposal company in Dallas, TX. On a daily basis, he approves contracts with clients renting out portable toilets, dumpsters, compactors, and hand-washing stations for construction sites and special events. Recently, to help the green effort in our area, Moore has started participation in several LEED construction projects around the city. In all aspects of his business, Mark is dedicated to providing the highest quality service with an emphasis on prompt delivery, safety, and good business ethics.

NAME	STEVE MOORE
AGE	52
CITY	CARROLTON, TX.
OCCUPATION	SENIOR MANAGER AT MOORE DISPOSAL, INC.
INCOME	\$95,000/YR.



FABRICATION PROCESS

- 1** Outer shell is made from PLA and rotomolded
- 2** Ribs are made of silicone with embedded LED's and is overmolded
- 3** The base is made from PLA and is injection molded. The mat on top is made from silicone and overmolded.
- 4** Containers are made from PLA and injection molded
- 5** Platform is made from PLA through injection molding with a silicone overmold.
- 6** The urinal is made from PLA through injection molding with embedded LED's. The Toilet is outsourced and fabricated through another company,

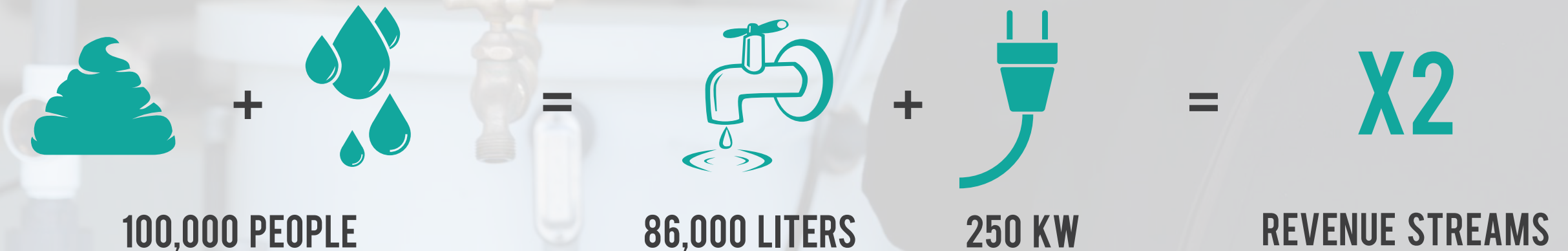


CRITICAL RISKS : A PROPOSED SOLUTION





Bill Gates

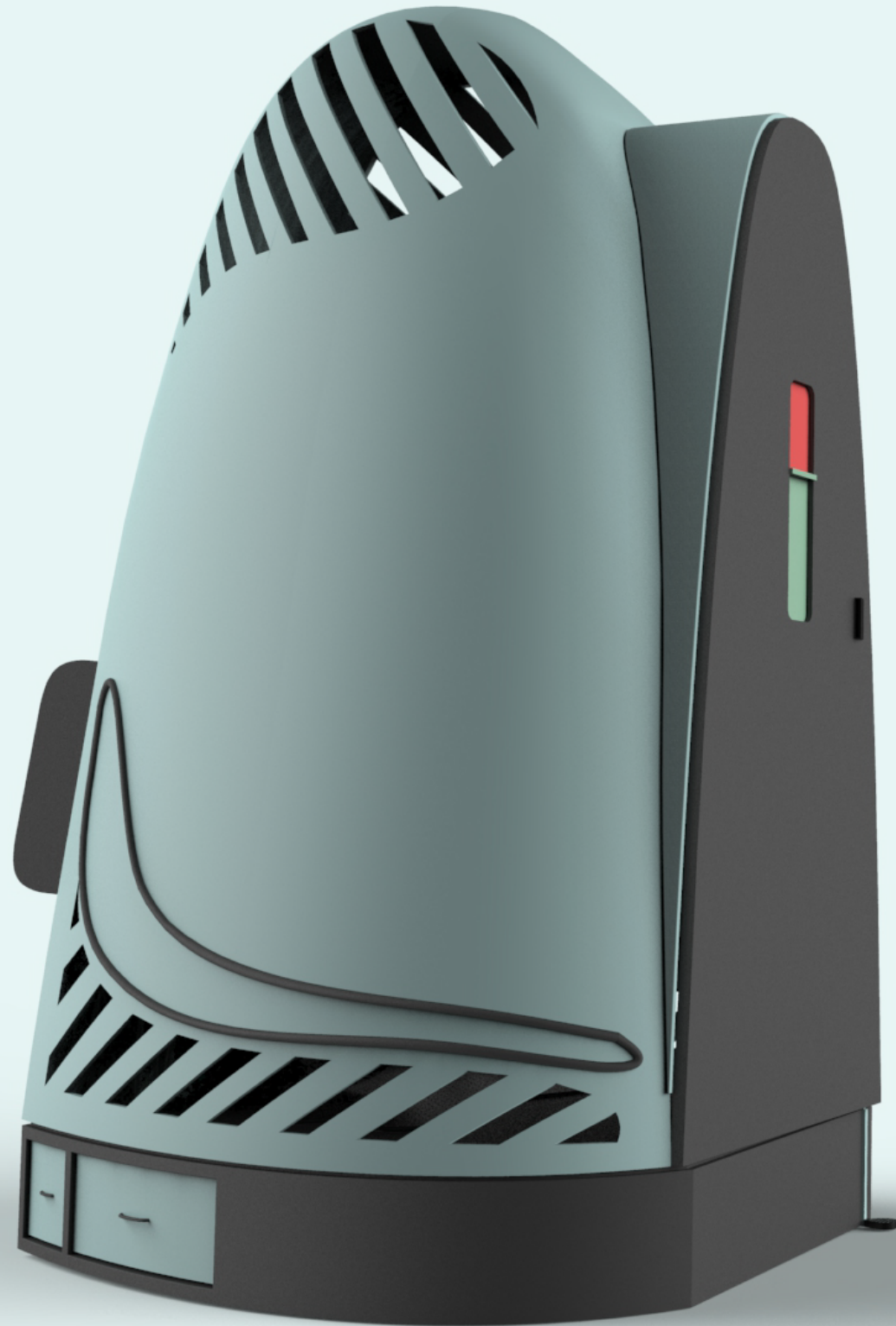
This water was
waste 5 minutes
earlier

ONE DAY WITH THE OMNIPROCESSOR



The infographic illustrates a resource equation for 'ONE DAY WITH THE OMNIPROCESSOR'. It features three teal icons: a pile of poop, a cluster of water droplets, and a dripping faucet. These are followed by plus signs and equals signs, leading to a final teal icon of a power plug. Below each icon is a corresponding value: '100,000 PEOPLE', '86,000 LITERS', and '250 KW'. The final result is 'X2' and 'REVENUE STREAMS'.

	+		=		+		=	X2
100,000 PEOPLE				86,000 LITERS		250 KW		REVENUE STREAMS



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