

**PRODUCT DESIGN:**  
**NITRO COLD BREW, BOTTLED COLD BREW  
AND NITRO KEGGING PROCESS**

*Nitro Cold Brew developed in-house with custom kegging system for festivals. Large-scale brewing for cold brew (in brewery) and bottled.*



## **FESTIVAL TAP DESIGN & KEGGING PROCESS:**

Development of cold-brew recipe, brewing process, nitrogen carbonation and dispensing process, tap, keg and line development.

### PRODUCT DESIGN REQUIREMENTS:

- Need: Stable, delicious-tasting Cold Brew recipe
- Ability to store cold-brew in keg and push cold-brew through tap to create “head” like Guinness.
- Large quantities for easy storage and movement
- Ability to keep contents and keg cold
- Creamier mouthfeel
- Inexpensive setup
- Ease of use: need plug & play ability for people familiar with serving beer at festivals
- Need to scale up from festival keggings to larger production facility

## **SOLUTION:**

When we started thinking about bringing Coexist Coffee to our pop-up booths in September of 2013, we wondered if we should serve our coffee hot or cold. D.C., while lovely in the fall, is notoriously humid and muggy if the summer weather extends past August. Based on the weeks leading up to our game-time decision, we thought we needed something cooler to offer, both in temperature and concept.

Although enchanted by our hot coffee brewed in a Chemex (if you haven’t tried it, it’s delicious!) we were a little less than enthused at the idea of offering a regular iced coffee. We wanted better flavor and less acidity than quickly brewing it hot would yield, and didn’t want to be watering it down with excess ice to keep it cold. Plus, moving and storage would be cumbersome if we pre-iced without closed containers.

With six weeks until the yearly H-Street Festival in 2013, which draws crowds of 120,000 people, we knew that to get recognition for our fair-trade products for good, we should step outside the box and deliver something innovative. “Hey, doesn’t coffee from a keg sound pretty good?” was the first step towards birthing the nitrogen-pushed cold-brew coffee.

We had a hypothesis: We could tap the coffee from a keg in the same way that you tap a stout beer. It would add a thickness to the brew and elevate the taste, and small amounts of carbonation would bring out a creamier mouthfeel.

I was on it. After a few hours of initial research, we didn't know just how far we could take it, but at least we had an idea. The main question was whether we could get it ready in time for H Street.

We were off and running. The next step was to develop a delicious Coexist cold brew recipe. We started with a Toddy, a container that allows you to cold brew in large batches. With that, we got to work perfecting the concentrated brew to put it in the kegs. We ground massive amounts of our whole bean coffee to put in the Toddies (each required a 5-pound bag of Coexist Coffee), adjusting grind size and dilution method as we went. We then steeped the coffee grounds in cold water for 10-14 hours.

We taste-tested an 8-hour batch, a 12-hour batch and a 14-hour batch before deciding that a mixture would provide optimal flavor.

### **My next job was to work the tap setup from a logistical angle. I jumped on the research:**

How was a nitro-brewed beer tapped? What was the ideal head pressure for the keg? How could we do it for coffee in an easy way, while keeping everything cold, sanitary and really cool looking? How, exactly would we push the coffee out of the keg? What would give it that extra edge?

I decided to put together something called a 'Festival Tap', where the kegs could be hooked up to a nitrogen tank and a regulator, run through a cooling system in the jockey-box (a cooler that has been modified to hold beer lines and ice together) and out of a stout faucet to give it that cascading effect that many stouts have.

On the liquid chemistry end, a bit of hair-raising last-minute testing and pre-carbing, developed into filling the kegs with coffee, introducing an N<sub>2</sub>/CO<sub>2</sub> mixture, adding a little Coexist magic, and pushing it out through the lines with the same nitrogen and CO<sub>2</sub> mixture that taps a Guinness.

### **The result?**

Delicious, creamy, and a complete hit.

- Coexist Campaign Blog Post + Case Study, written by Dana Reinert, Product Innovation Manager

# FESTIVAL TAP DESIGN & KEGGING PROCESS:



## **COLD BREW COFFEE, 12 OZ**

Development of bottled cold-brew recipe, large-scale brewing process, brewery collaboration, cold storage, supply chain scheduling and development, bottling process & package design.

### PRODUCT DESIGN REQUIREMENTS + USER NEEDS:

- Bring concept from festival-style kegging system to retail shelves in local and national market
- Create ready to consume product
- Shelf-stable (or refrigeration stable)
- Ease of shipping
- Ease of distribution in large or small quantities
- Ease of storage of unused or unsold product (rather than opening a keg and spoiling)
- Better branding/package story on end user experience of product
- Needs to "speak for itself" if Coexist rep isn't present.

## SOLUTION:

After creating and perfecting our cold-brew recipe with our single-origin heirloom arabica coffee, (hailing from a multi-faith cooperative in Uganda), we wanted to scale up in a different way. While still providing kegs to local festivals, we wanted something sustainable (and a little easier to carry) that we could provide for our local grocery stores, cafes and restaurant clients.

Working with a contract brewery in Sterling, Virginia, we developed and refined the brewing method to scale up from gallons to BBL. Barrels, which is a typical unit of measurement for the beer world, deals with measurements of 31 gallons of liquid per barrel, and on any given day, Beltway Brewing has three 90-barrel and three 60-barrel units open for brewing. Suddenly, large quantities of cold brew that can be brewed, bottled and shipped were much more feasible for our national grocery strategy.

We chose 12oz amber bottles for extended shelf life, single-use bottle caps for freshness quality (introducing air into the mixture and resealing decreases taste and shelf-life of cold brew) and provided the unique opportunity of look toward both single-serve and 4 or 6-pack distribution further down the product lifecycle.



## SAMPLE TAP

With miniature nitrogen tank, lines & gauge

PRODUCT DESIGN REQUIREMENTS + USER NEEDS:

- Light weight
- Easily portable (able to move between office and Nitro-Keg tastings)
- Easy refilling capability
- Ability to keep contents and keg cold
- Detachable nitrogen tank
- Stable shelf for nitrogen tank
- Aesthetics work with company brand
- Must be able to fit in the back of a small car.



## PROPOSED SOLUTION:

One issue we ran into pretty quickly was the fact that lugging a full 15-gallon keg around town, plus an 80 cubic foot canister of nitrogen, PLUS a cooler-tap-system, was a bit ridiculous.

Dana realized she could redesign a cooler and a smaller keg system, cheaply, that fit the right characteristics and design requirements. Made from a rolling Igloo cooler, it fit a pin-lock keg and kept the cold-brew...well...pretty dang cold. When pushed with the same Nitrogen beer gas mixture, all we needed next was a case for it that fit the Coexist Brand design. Dana designed the wooden case structure that would house the cooler, and a special shelf specifically designed to hold a smaller nitrogen tank so it could all be pushed around as one unit. She outsourced the build of the wooden structure to Mixani Designs of Baltimore Maryland, but all scientific set up was in-house.

See next page for sketches of development process.



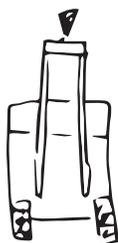
# SAMPLE TAP:

RZDZ

CURRENT



FRONT



BACK

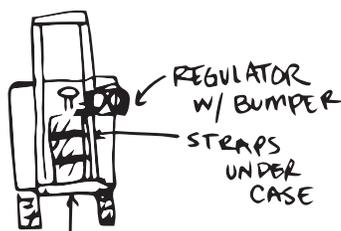
NEEDS

- ADD SHELF OR STRAPS
- ADD BOX AROUND FOR CUP HOLSTER + BRANDING

IDEA 1: WOOD BOX SUIT

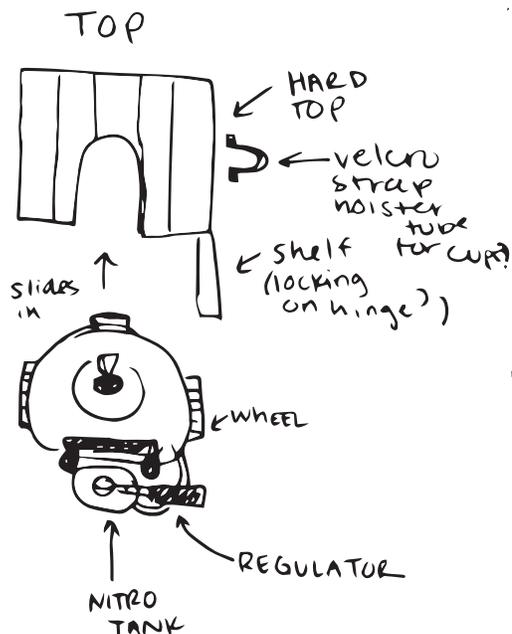


FRONT



BACK

REGULATOR W/ BUMPER  
STRAPS UNDER CASE



TOP

HARD TOP

velcro strap holster tube

shelf (locking on hinge?)

slides in

WHEEL

NITRO TANK

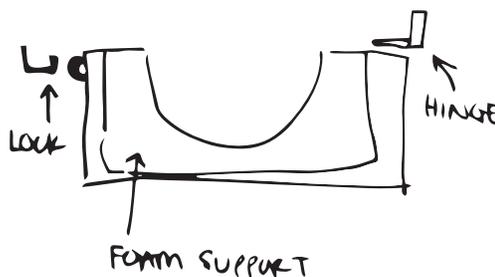
REGULATOR

NEEDS

- VELCRO STRAPS (x2) FOR SECURING NITRO TANK
- SLEEVE/TUBE
- VELCRO TO HOLD AFOREMENTIONED SLEEVE/TUBE.
- WOOD PALETTE
- HINGE
- WOOD FOR SHELF

SHELF

TOP VIEW



FOAM SUPPORT



## **OTHER REQUIREMENTS: REBRAND**

Coexist also required a rebranding within this process. By surveying users, coffee drinkers and potential donors to Coexist.org, we took surveys of what people expected and needed from a lifestyle brand that sold products with a mission.

By continually checking-in with our users, we were able to redefine the package design process and lead a brighter, more transparent brand vision moving forward, something equally at home on Safeway shelves as in small boutique groceries in Brooklyn.

Dana Reinert & the Coexist team went on to win Expo East's national trade show award for Best New Product in 2014.

Rebranding materials are shown on the next page.

# COEXIST REBRAND:

Designed and developed by Dana Reinert while as Brand + Product Manager



## And we're going BEYOND THE BUMPER STICKER:

- We create stability in post-conflict and fragile communities by investing in economic opportunities for people to work and learn together across divides.
- How? By sourcing Coexist products directly from entrepreneurs and cooperatives in communities affected by conflict.
- We partner with these businesses to create jobs that increase productivity and stability.
- A portion of Coexist's profits are returned to the communities that create our products in the form of supporting education. We look for educational opportunities that bring together divided ethnic groups, castes, and religions.



When you buy from Coexist, you are joining a global movement for inclusive, productive, and conflict-free communities. [coexistcampaign.org](http://coexistcampaign.org)



**COEXIST IMPACT:**  
CREATING SOCIAL COHESION THROUGH EDUCATION

**ESTIMATED COST OF QUALITY EDUCATION: \$10.83 / MONTH**  
for primary school aged children

**57 MILLION** PRIMARY SCHOOL AGED CHILDREN without access to school

**28.5 MILLION** OF THESE CHILDREN LIVE IN COMMUNITIES OF CONFLICT

**COEXIST WORLDWIDE**

**MAP KEY:**

**16** COUNTRIES REACHED

**8** Co-operative partners (current & potential)

**8** Cafe & distribution countries (current & potential)

**6** International education partners (Merry Corps, Verkey GEMS Foundation, UN Global Education First Initiative, Global Partnership for Education, Potham, Oxfam)

**RESULTS**

**1 CONTAINER OF COFFEE** GENERATES **\$10,000** FOR EDUCATION THAT'S **923** MONTHS OF SCHOOL AND CREATES JOBS FOR **400-500** FARMERS

IN TEN YEARS, COEXIST COFFEE SALES ARE PROJECTED TO GENERATE:

**\$2.9 MILLION** FOR EDUCATION THAT'S **267,780** MONTHS OF SCHOOL AND creates jobs for over **30,000** FARMERS

