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BeAM Packout Program

Fall 2019

## EXECUTIVE SUMMARY

While the BeAM (Be A Maker) network of makerspaces at UNC-Chapel Hill is open and free, only a select group of individuals in the campus community are aware of their services. BeAM would like to attract people to each of their spaces, show how accessible the space is to novices, and inform audiences of what can be accomplished in the space. In order to do this, we designed an outreach packout program that promotes the makerspace community by targeting audiences with little to no previous involvement with the space. For this project, we chose three populations to focus on: first and second year undergraduate students, students in professional schools, and making novices. With these broad categories, we designed interactive activities that would introduce them to the makerspaces, spark creativity, and bring them back to BeAM in the future.

Each of the following plans includes proposed activities, times and locations for on-campus tabling, staffing needs, and required materials. They focus on the interactive portion of the packout to give a foundation for future work concerning the design and branding of the table itself. The packout activities can be separated into smaller packout kits or combined into larger displays that include multiple tables and additional equipment. Each design can be as complicated or as simple as the user needs, and is intended to provide a low barrier to begin making while also highlighting the sophisticated technology offered at BeAM.



PACKOUT PROGRAM FOR  
UNC BEAM MAKERSPACES

## SHRINKY DINKS & 3D PRINTS

### TARGET AUDIENCE

Undergraduate students, especially first and second year students who may not know about the BeAM spaces yet.

### LOCATION

These locations are chosen for the open tabling option because they are frequented by first and second year students, near undergraduate dorms, dining halls, or BeAM makerspaces that are close to academic buildings with introductory classes.

- Open plaza between Chase Dining Hall and Rams Head Gym
- Outside of Morrison Residence Hall, by the parking lot
- Outside of the BeAM space at Carmichael Residence Hall
- Outside of the main entrance to Hanes

### SETTING

This packout could be used in either of the following settings, depending on the audience:

- Indoor events, such as orientations, student interest fairs, or UNC Chapel Hill recruitment fairs.
- Open tabling, consisting of the packout materials set up in a location outside on the UNC Chapel Hill campus to draw people into particular spaces.

### TIMING

- For open tabling near dining halls and dorms: 5:00 - 7:00pm, or around dinner.
- For spaces near academic buildings or makerspaces: 3:00 - 5:00pm, or late afternoon as classes are ending for the day.

### MATERIALS

#### **For every packout:**

- 1 computer with charger for Google Form/newsletter sign-up and orientation sign up
- 1 counter for keeping tabs on how many people visit the table

### **For the Shrinky Dinks take-home kit:**

- Bag to place kit materials in
- 4 x 6 inch shrinky dink sheets
- Instructions for baking, list of locations with a kitchen (Carmichael)
- Finished examples

### **For the table:**

- Markers, colored pencils, pens
- Scissors
- Designs to trace (UNC and BeAM specific - BeAM logo, Tar Heels, Old Well, etc.)
- Finished examples of Shrinky Dinks
- 3D printer
- Example of a 3D printed final product
- An open computer with Thingiverse and TinkerCAD in a browser window

## **STAFFING AND PREP WORK**

- Two staff people
- Creating examples:
  - 3D printed final product
  - A variety of Shrinky Dinks
- Choosing or designing a file to 3D print
- Creating informational fliers with BeAM orientation dates

## **ACTIVITY OUTLINE (WHAT WILL PEOPLE DO WHEN THEY APPROACH?)**

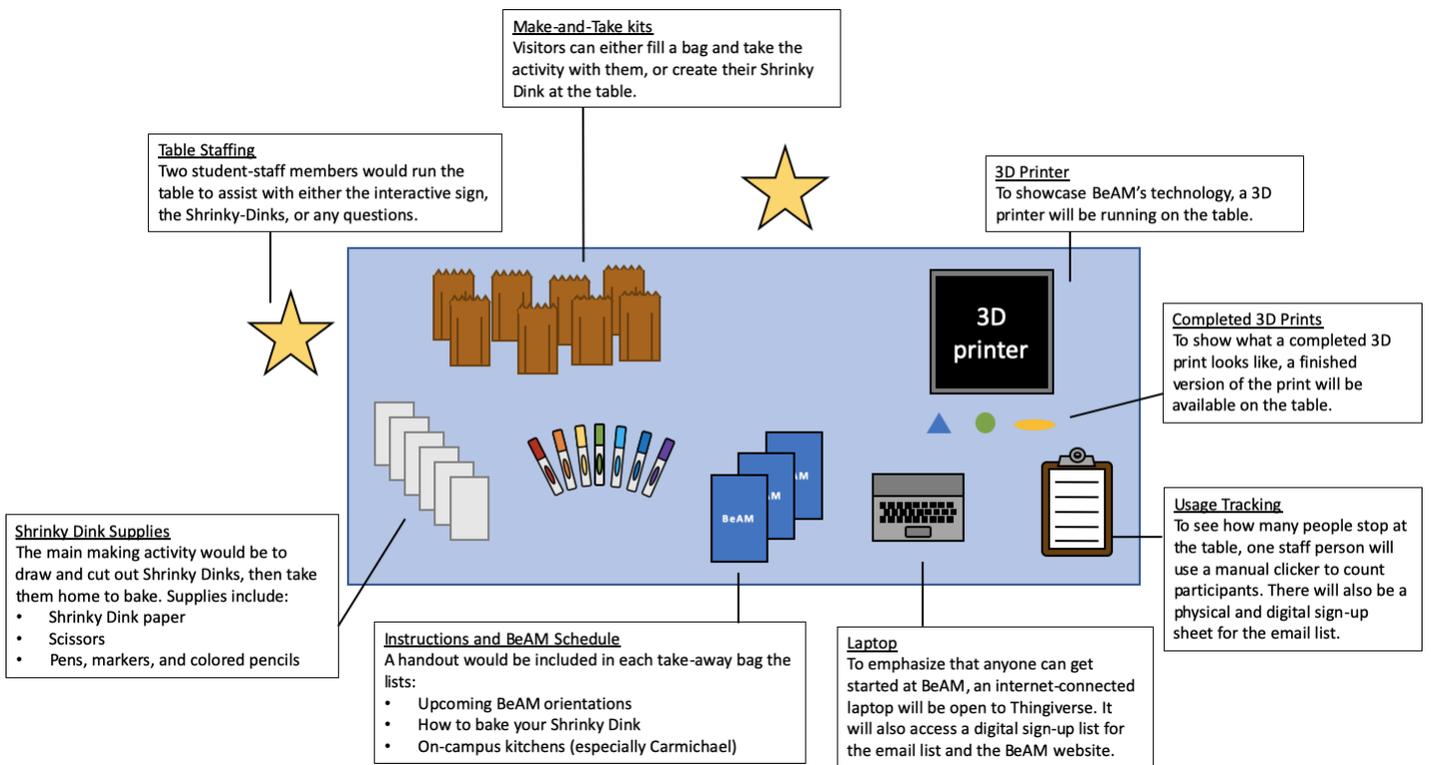
This packout will be used in conjunction with the interactive sign board. As students approach the table, student workers will explain the sign board activity and also offer a Shrinky-Dink activity:

- Shrinky Dinks provide a low-skill, quick activity for users: draw a design on the paper, cut it out, and then bake it in the oven to have it shrink into a finished plastic design.
- Students can either create their design at the table with the supplies provided or take the paper with them in a kit.
- Students will leave with:
  - The pre-baked Shrinky Dink or blank paper
  - an instruction kit for finishing their piece
  - a flier with the BeAM orientation schedule.
- Table staff will encourage students who may not have an oven to use the Carmichael kitchen, located by the Carmichael BeAM makerspace.

- If students enjoy making these customizable trinkets, table staff can describe other methods of making available for free at the BeAM spaces.

For a more direct demonstration, there will be a 3D printing demonstration happening on the table so that people can see what kinds of technologies BeAM offers. The printer will be running a print job, and a completed version of the print will be out for viewing on the table, along with a computer showing different designs available on Thingiverse. Students can see the design being created and also look through the options of things they could create themselves. Having pre-made designs available may lower the perceived barrier to designing and creating objects with digital technologies.

*See Next Page for Visual*





PACKOUT PROGRAM FOR  
UNC BEAM MAKERSPACES

## MAKING TO-GO

### TARGET AUDIENCE

The target audience for “Making To-Go” is Professional Schools.

### LOCATION

This packout should be placed near the professional schools and areas they frequent.

- Gillings School of Public Health
- Health Sciences Library (near bus stop)
- Business School

### SETTING

This packout is designed for events, such as during the orientation of a professional school, or open table event for passersby.

### TIMING

This packout should be set up in the middle of the day (lunch) and early afternoon when students are waiting for the bus.

### MATERIALS

#### **For every packout:**

- 1 computer with charger for Google Form/newsletter sign-up and orientation sign up
- 1 counter for keeping tabs on how many people visit the table

#### **Card-making take-home kit:**

- Bag to place kit materials in
- Button battery
- Copper tape
- LED Light(s)
- Mini Instruction Manual (details with where to fold/cut/place copper tape)
- Paper for the card
- Flyer about BeAM

**On the table:**

- Scissors
- Glue
- Markers, pens, colored pencils
- Button-maker
- Stickers
- Pre-punched circles with logos and designs

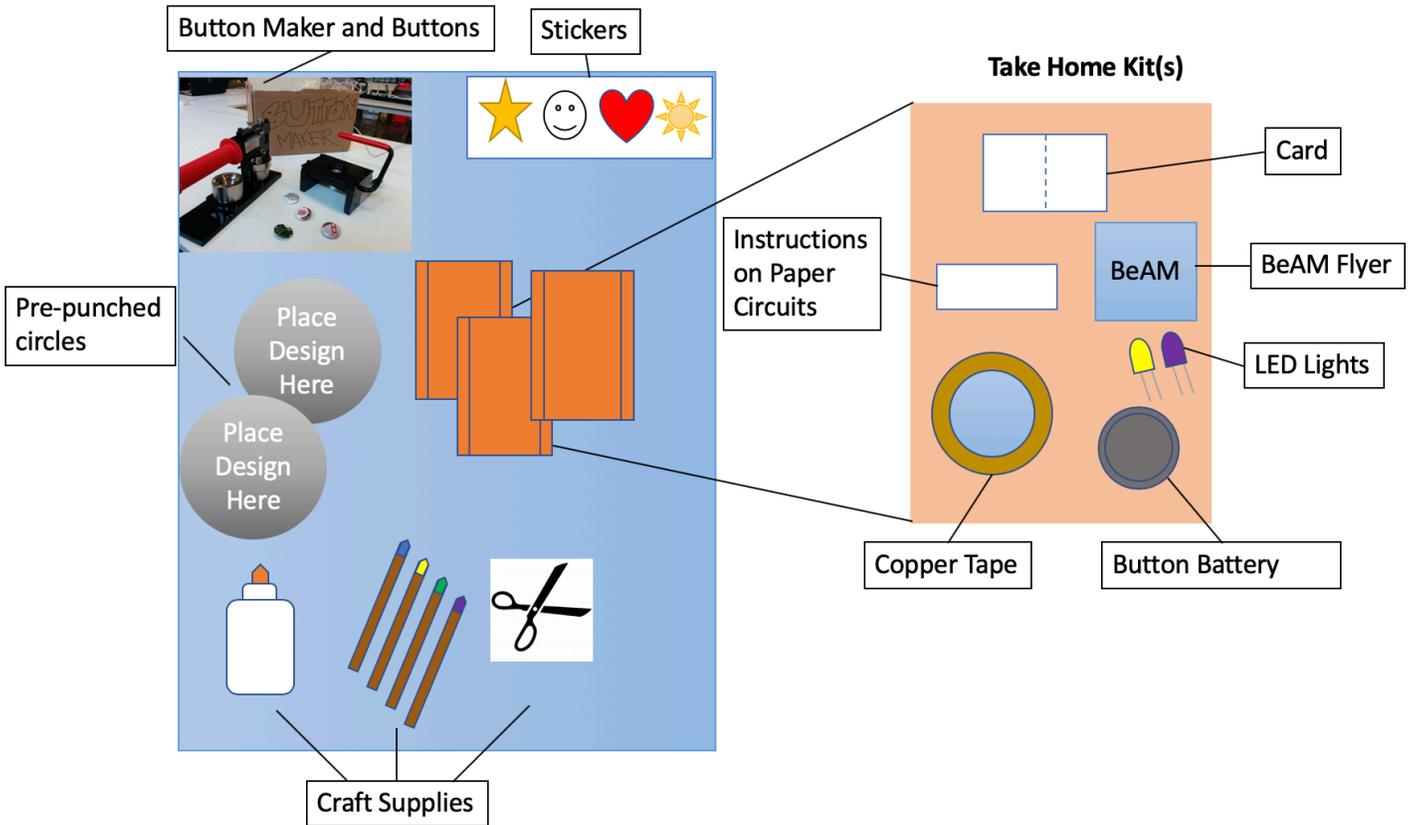
**STAFFING AND PREP WORK**

Staff should prepare prototype greeting card(s) to exemplify the possibilities paper circuitry provide in design and lighting. Secondly, they should create button designs and punch out pre-made buttons.

**ACTIVITY OUTLINE (WHAT WILL PEOPLE DO WHEN THEY APPROACH?)**

For this packout, students will make a button through drawing or printed and cut pictures. They can also make a greeting card with paper circuits and LED lights. Students may also pick up take-home kits with card-making supplies to make on their own; these kits will contain instructions for various paper circuits.

*See Next Page for Visual*





PACKOUT PROGRAM FOR  
UNC BEAM MAKERSPACES

## NAILED-IT BOARD

## TARGET AUDIENCE

Primarily undergraduate underclass students, though applicable to everyone

## LOCATION

- Professional Schools: Gillings School of Public Health, Business School, Health Sciences Library (near bus stop)
- Plaza between Chase Dining Hall and the Rams Head Gym
- Possibly outside of Morrison (by the parking lot)
- Hanes Art Center

## SETTING

- Events -- orientations, interest fairs (perhaps a separate sign for events versus open table)
- Open table, outside

## TIMING

- Evening (5PM-7PM) for plaza
- Near makerspaces - late afternoon (3PM – 5PM)

## MATERIALS

### For every packout:

- 1 computer with charger for Google Form/newsletter sign-up and orientation sign up
- 1 counter for keeping tabs on how many people visit the table

### For nailed-it board:

- Nails
- Hammers
- Power drills
- Batteries for power drills

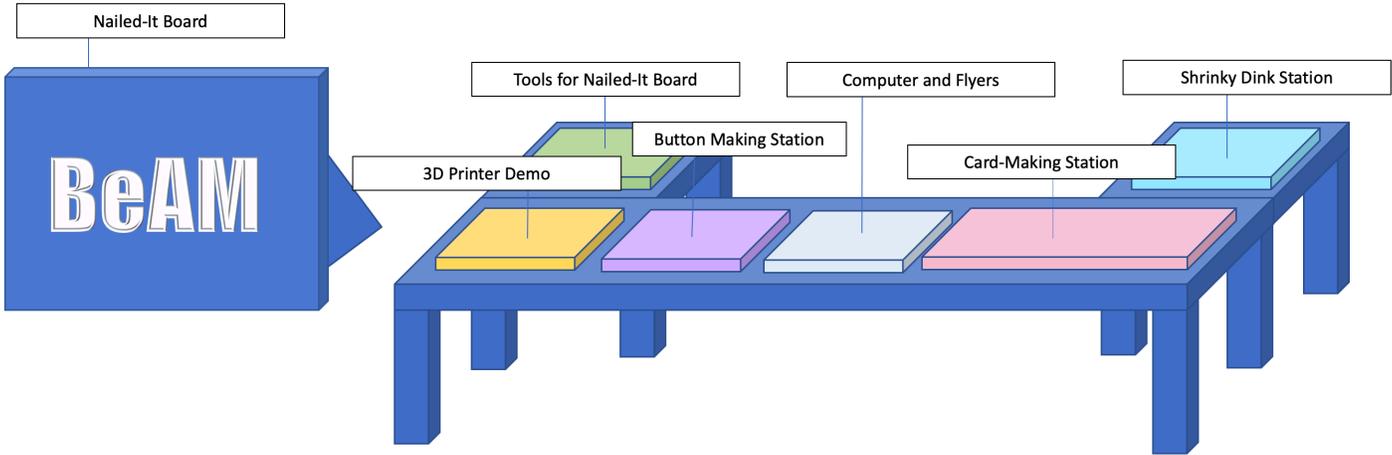
## STAFFING AND PREP WORK

- Lasercut the stencil/outline of “BeAM” or other pre-determined logo
- Paint background of board so that the word stands out with negative space
- One or two staff members depending on whether the board is stand alone or in conjunction with another packout kit

#### ACTIVITY OUTLINE (WHAT WILL PEOPLE DO WHEN THEY APPROACH?)

Passersby will see a sign board partially completed by previous passersby that help advertise for BeAM makerspaces. People will use nails and a hammer or screws and a power drill in order “fill in” the letters. The idea is to use the large interactive to draw others to the packout who are walking past with a *quick and easy* task. This activity also gives people who perhaps have never used hand tools before an opportunity to do so. Once the sign is filled in with nails and screws it can be displayed somewhere to further advertise the BeAM spaces on campus.

*See Next Page for Visuals*





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