

ToGeThere

To get there, together.

**Integrated Product Development (IPD) Business Plan**

**ToGeThere was selected as the winner of the \$5000 Murphy Prize for future development**

**Team Mango**

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## Product Description

ToGeThere is an app that creates meaningful interactions through activities between people who feel disconnected. The app allows the user to create digital art with loved ones by staying active and doing activities together while separated by distance. ToGeThere motivates users to complete activities together by allowing them to start activities and invite others to virtually join, wherever they're located. ToGeThere currently supports running, walking, hiking, biking, and yoga activities. Based on the activity, ToGeThere collects data from the user's fitness tracker and creates a unique piece of digital abstract art. The art from each invited user is combined, resulting in a beautiful and one-of-a-kind piece that the users created together. The art can then be used to personalize products for purchase to preserve the interaction and share with others. Users can purchase their art on a postcard that will be delivered to their desired location. ToGeThere requires the purchase of a 6 month subscription for \$30. With this purchase, the user also receives a credit for ordering 3 free postcards per month (18 total postcards over 6 months). See Figure 1 for product details.

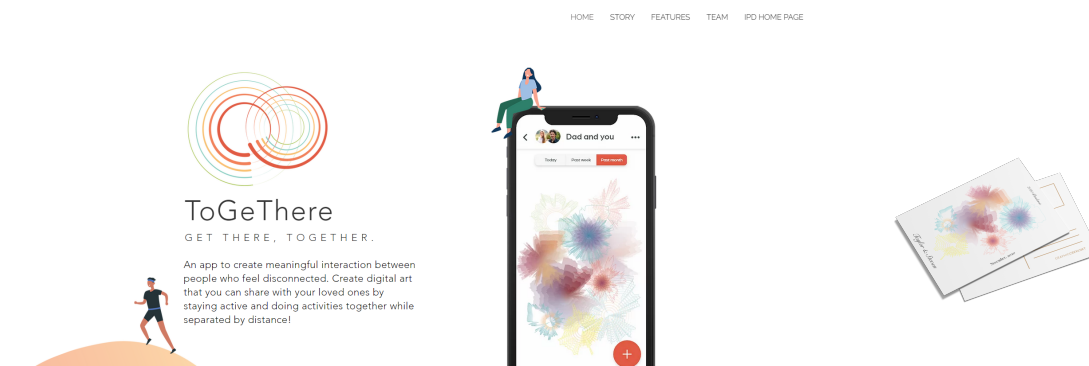


Figure 1: ToGeThere Description, Art, and Postcards

## Product Brief

Close family and friends who live in different locations often feel disconnected from each other. People enjoy being in the same room and can equate that interaction with meaningfulness. Often, virtual interactions or distance can seem shallow and superficial creating a sense of isolation. ToGeThere provides digital interactions that create increased meaning through art and the sharing of accomplishments. The app creates a feeling of connection through activities and achievement, where previously connection wasn't thought possible while people were in different locations. Users feel as though they are running or walking together, even when they're not physically together. The app was designed for scenarios where close family and friends live in different locations or are isolated from one another during COVID-19. These close family and friends could be a young professional who recently moved out of their parents' home to a new city, a grandparent and grandchild in college who cannot visit each other a few hours away, or close friends who moved to different cities after college.

Additionally, the app allows users to preserve the interaction on a physical product, such as a postcard. The postcard becomes a representation of the interaction to spark continued feelings of connection beyond only the time of the interaction. People feel connected when they receive

something special in the mail from others and then can place it on their fridge or display elsewhere in their home, just as they would pictures from a vacation, as a continued reminder. Users could order postcards as a memory for themselves to cherish or could send to their loved ones as a meaningful gift of connection.

A pandemic or periods of social isolation can also cause people to lose motivation or inspiration to complete activities and routines that are typically part of their everyday lives. People may lose the drive to exercise and days can easily pass indoors without seemingly accomplishing anything. Activities and exercising are much easier to accomplish when a person has an accountability partner to do the activity with and hold them to their goals. ToGeThere allows users to invite their close family and friends to complete activities with them to help encourage motivation and keep people active. Through the app, the user can ask their family member to join them for a walk, which makes the family member a lot more likely to go on a walk even from a distance. Users can see art created over time between groups and be motivated to create enough interactions to fill a whole screen with art.

## Technology

ToGeThere is an application created using the most up to date iOS development tool, Xcode 12 using Swift UI. This application is based off of wireframes and user testing that have been completed in Adobe and Figma. The user with a Fitbit, Apple Watch, or other fitness tracker will be able to start an activity and allow the wearable device to record their steps, activity duration, heart rate, and activity type. This data will be stored into their Apple Health and Activity applications or their Fitbit app. The ToGeThere application will pull the aggregated data from the Apple or Fitbit application for the creation of the unique piece of abstract art.

ToGeThere code transforms the data into a visual. For all activities, heart rate data is turned into a line showing the fluctuation, which is curved into a circle and used as the basis of the visual. The code also uses the time duration of the activity to determine the overall size of the art. Longer activities create larger images, while shorter activities create proportionally smaller images. Beyond heart rate and duration, the art for different activities changes:

- Walking, Running, and Hiking: Step count is used to create a circle at the center of the image. Larger step counts create larger circles. Walking is shown as green art, while hiking is shown as yellow and running as blue. See Figure 2 for a description of the visual creation.

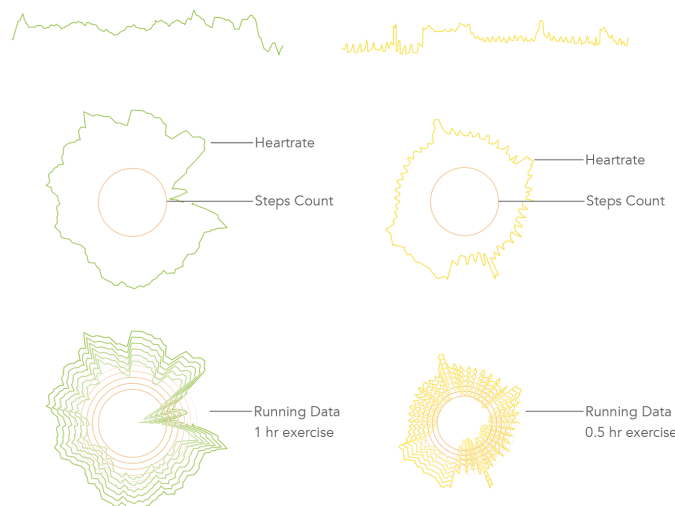


Figure 2: Description of Art Creation

- Yoga: The traditional yoga symbol of the lotus flower is used as inspiration for the center of the heart beat. The yoga art is shown as red. See Figure 3 below for details.
- Biking: To represent turning spokes, the biking heart rates are filled in and faded. The biking art is shown as fading purple. See Figure 3 for an example of the biking art.

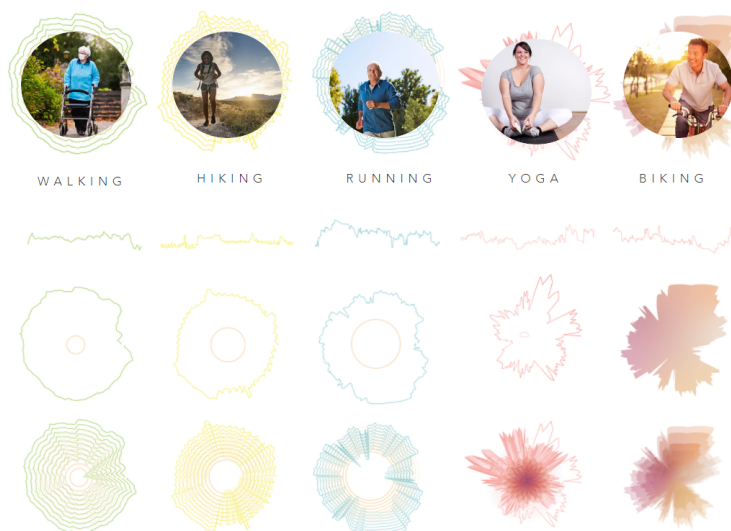


Figure 3: Art Examples

After all data is gathered and placed into a piece of abstract art on the application, a blending process is applied to blend the heart rate data with the data placed in the center of the piece. This blending technique allows the application to fill in the blank space while also creating interesting overlays of patterns and colors unique to every activity.

The user will have the ability to look through visuals that were created between them and either a single or a group of friends and save their favorites to view again later or order printed on a physical product for memory. The user is also able to view visuals created by the group over



different periods of time, including that day, the past week, and the past month. To order a product, the user will navigate to the store portion of the application and select which single piece of art that they would prefer to print and ship and use their purchased credits to complete the payment. After entering the shipping address, the order will begin processing. If the user is out of credits for the time period, they will not be allowed to complete the purchase.

When a postcard order is placed, the digital art is printed and the postcard is manufactured. The postcards will first be printed using a specialized mailing printer, then cut using a paper cutter, and then placed in envelopes to be shipped. More details on the process are shown below:

- **Printing:** Postcards are printed on 8.5"x11" 16pt "ultra-thick" paper stock using a specialized mailing printer and color toner. Number 10 regular envelopes are also printed with shipping and return addresses on them.
- **Cutting:** Postcards are cut down to the size of 4"x6", with two postcards fitting on each printed page, using a paper cutting machine. The machine can cut around 100 pages at a time, requiring 5 cuts.
- **Shipping:** Postcards are manually placed into envelopes (3 postcards to an envelope) and stamped using "Forever" stamps and an "Additional Ounce" stamp. The envelopes are then sealed, and shipped to the user.

## Market Analysis

ToGeThere can be used by anyone with an iPhone for its initial release. Our market includes iPhone owners who participate in walking, hiking, biking, or yoga for fitness and live apart from someone they know who enjoys similar activities. ToGeThere was specifically designed for a young professional, Taylor, who recently moved out of her childhood home and misses running together with her dad. Because of the COVID-19 pandemic, Taylor is unable to safely and easily travel to visit her parents' home. Taylor got her passion for running from her father and used to go on runs with him every week. She wants a creative solution to inspire her to keep running, as well as maintain her relationship with her father. Taylor's father, Steven, is passionate about running and, living apart, is unsure how to maintain his relationship with his daughter. ToGeThere provides Taylor and Steven a way to stay connected through running, keep up their motivation to run, and create running memories together even at a distance. See Figure 4 for the complete user profiles of Taylor and Steven.



Figure 4: Taylor and Steven User Profiles

ToGeThere will begin by targeting the US market for iOS users. Research shows that 45% of smartphone users in the US use iOS<sup>1</sup>. Additionally, near 240 million Americans (75%) participate in walking, running, biking, or yoga for fitness<sup>2</sup>. If 45% of these Americans use an iOS smartphone device, the Total Available Market for ToGeThere is approximately 110M users or one third of Americans. In the initial launch, the ToGeThere team is targeting a demographic between the ages of 19-35 (i.e. Taylor); this demographic makes up roughly 21% of Americans<sup>3</sup>. We believe by targeting this demographic we will be able to gather initial traction that will allow for expansion into other demographics (i.e. Steven). With our target demographic taken into account, the Serviceable Available Market becomes 23.1M people. Due to the competitive landscape of the fitness application business, we have conservatively estimated that we could capture 1%, making our target market 230K users. This analysis aligns with similar fitness tracking apps in the market that have existed for much longer, such as Fitbit and Strava, which have 50M plus and 10M plus downloads<sup>4</sup>.

## Business Model

To reach our target market of 230K users, the ToGeThere team will continue building out and testing the application that we have created. We will ensure that our data visualization technology is patentable and receives a utility patent to solidify our place in the market. With the application complete, we will invest in the finalization of the postcard production atmosphere and ensure that the correct amount of paper, ink, and postage is available as we go to market. Should ToGeThere reach the market potential that we foresee of 230K active users, we project a potential annual revenue of \$13.9M, assuming all users re-up their subscription continuously over the years and there is minimal churn. With this target market, we expect to ship 8.3M postcards annually. At an average cost of \$0.37 per postcard, we expect our total costs per year to be near \$3.1M. Once fully scaled, the projected profit of ToGeThere is \$10.8M annually. See Figure 5 for detailed calculations.

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<sup>1</sup><https://www-statista-com.proxy.lib.umich.edu/statistics/236550/percentage-of-us-population-that-own-a-i-phone-smartphone/>

<sup>2</sup> 111M Americans walking for fitness in 2018 -

<https://www-statista-com.proxy.lib.umich.edu/statistics/191984/participants-in-walking-for-fitness-in-the-us-since-2006/>; 28.75M Americans doing yoga in 2018 -

<https://www-statista-com.proxy.lib.umich.edu/statistics/191625/participants-in-yoga-in-the-us-since-2008/>; 55.9M Americans running/jogging in 2017 -

<https://www-statista-com.proxy.lib.umich.edu/statistics/190303/running-participants-in-the-us-since-2006/>; 47.88M Americans biking in 2018 -

<https://www-statista-com.proxy.lib.umich.edu/statistics/191204/participants-in-bicycling-in-the-us-since-2006/>

<sup>3</sup><https://www.kff.org/other/state-indicator/distribution-by-age/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

<sup>4</sup> Strava downloads - [https://play.google.com/store/apps/details?id=com.strava&hl=en\\_US&gl=US](https://play.google.com/store/apps/details?id=com.strava&hl=en_US&gl=US); Fitbit downloads - [https://play.google.com/store/apps/details?id=com.fitbit.FitbitMobile&hl=en\\_US&gl=US](https://play.google.com/store/apps/details?id=com.fitbit.FitbitMobile&hl=en_US&gl=US)

## IPD ToGeThere Business Plan

Target Market	
Total Americans	330,000,000.00
% iOS	45%
Number iOS Users	148,500,000.00
% Active Americans	75%
TAM	111,375,000.00
% 19-35 Americans	21%
Target Demographic	23,166,000.00
% Target Market	1%
<b>Total Target Market</b>	<b>231,660.00</b>

Total Revenue	
Total Market	231,660.00
Subscriptions Per Year	2
Cost Per Subscription	\$ 30.00
<b>Total Revenue</b>	<b>\$13,899,600.00</b>

Total Costs	
Total Market	231,660.00
Subscriptions Per Year	2.00
Postcards Sold Per Subscription	18
Total Postcards Sold	8,339,760.00
Average Cost/Postcard	\$ 0.37
<b>Total Costs</b>	<b>\$ 3,085,711.20</b>

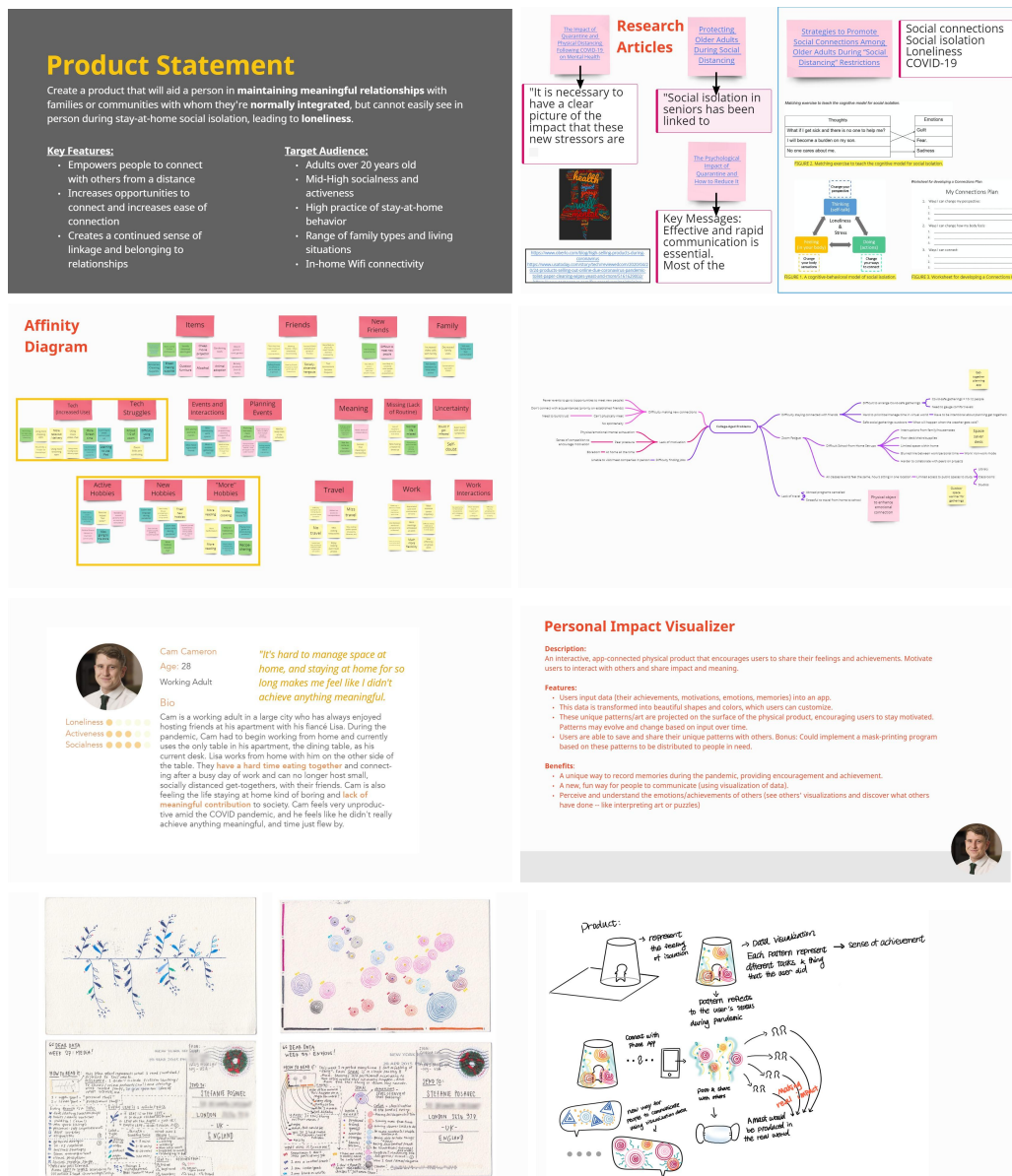
Figure 5: Business Model Calculations

We do not expect to scale to this level overnight and plan to begin the distribution process manually while demand scales. We will print, cut, and ship ordered postcards by hand until demand is too high to do so. Our plan would then be to rent out industrial space and scale up the printing and cutting operation to be automated to meet expected demand. Upon demonstration of business success, we would approach fitness tracking applications, such as Fitbit and Strava, for integration into their platforms to access greater portions of the market.

# Design Journey Portfolio

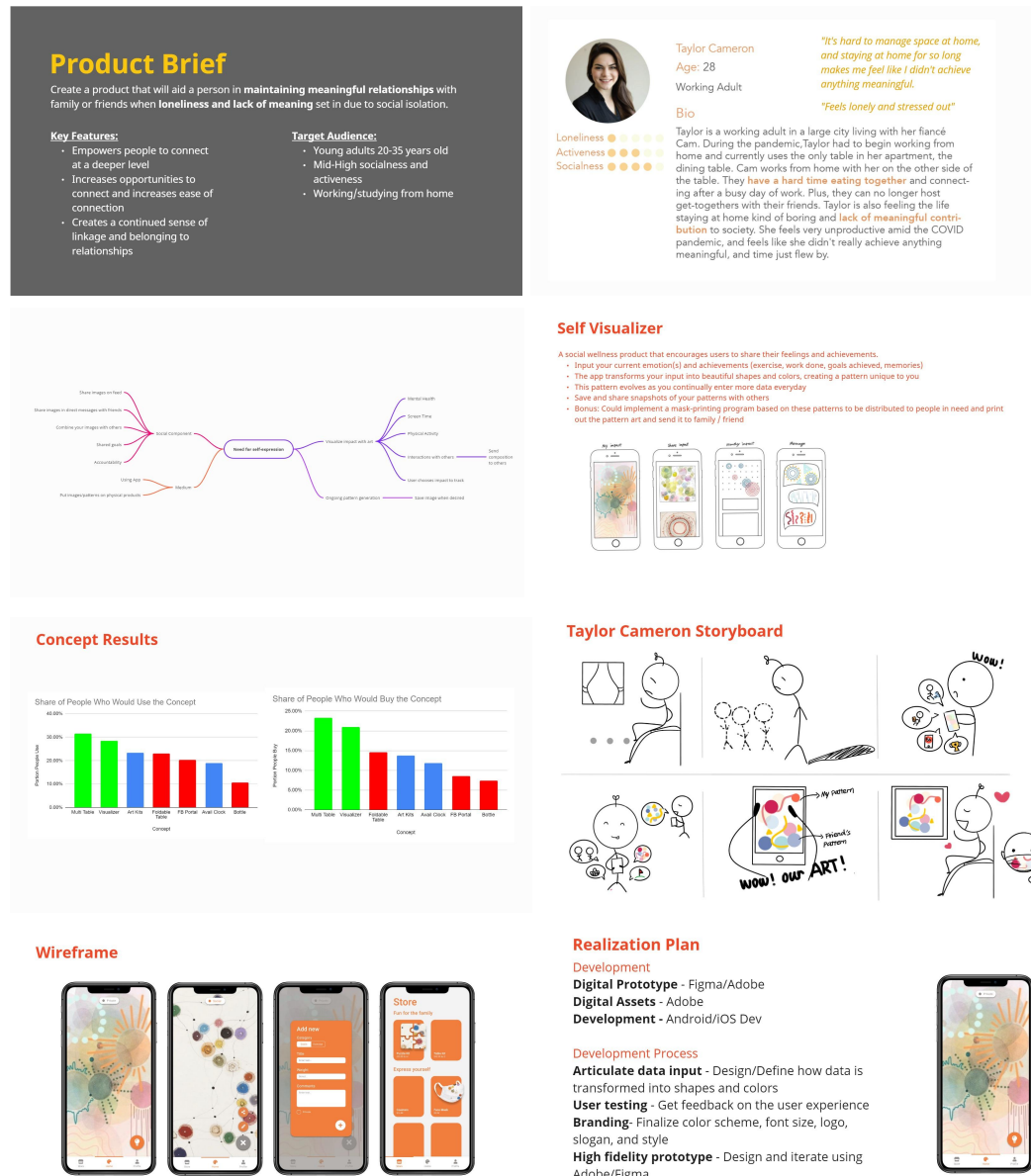
In the first phase of our design journey, we conducted extensive primary and secondary research to explore the problem space surrounding isolation in a socially-distanced environment. We conducted 10 remote interviews with participants following social distancing, all from different backgrounds and demographics. Our interview findings became the basis for an affinity diagram, and led to the creation of mind-maps and initial personas to inspire ideation. Secondary research included product inspirations, image searches, and research article reviews.

Using all of this data, we converged on 3 possible “How Might We” questions to pursue, and these inspired the generation of 9 initial product ideas. These ideas were presented to the Design Review 1 (DR1) panel for feedback. Full details on DR1 can be found in the following Miro board: [https://miro.com/app/board/o9J\\_kkHA1aU=](https://miro.com/app/board/o9J_kkHA1aU=/).



After DR1, we weighed panelist feedback alongside our own evaluation of the product ideas (based on feasibility, viability, and desirability) to further reduce the number of viable product ideas. The remaining 7 were packaged in concept card form and presented (via a Google Form survey) to a wide audience of potential customers for concept testing.

The results of concept testing showed that our self-visualizer, multipurpose desk and collaborative art kit concepts were the most popular among potential customers. These concepts were further developed through storyboards, wireframes/prototypes, and potential realization plans and presented to the Design Review 2 (DR2) panel for feedback. Full details on DR2 can be found in the following Miro board: [https://miro.com/app/board/o9J\\_kim9sUQ=](https://miro.com/app/board/o9J_kim9sUQ=/).

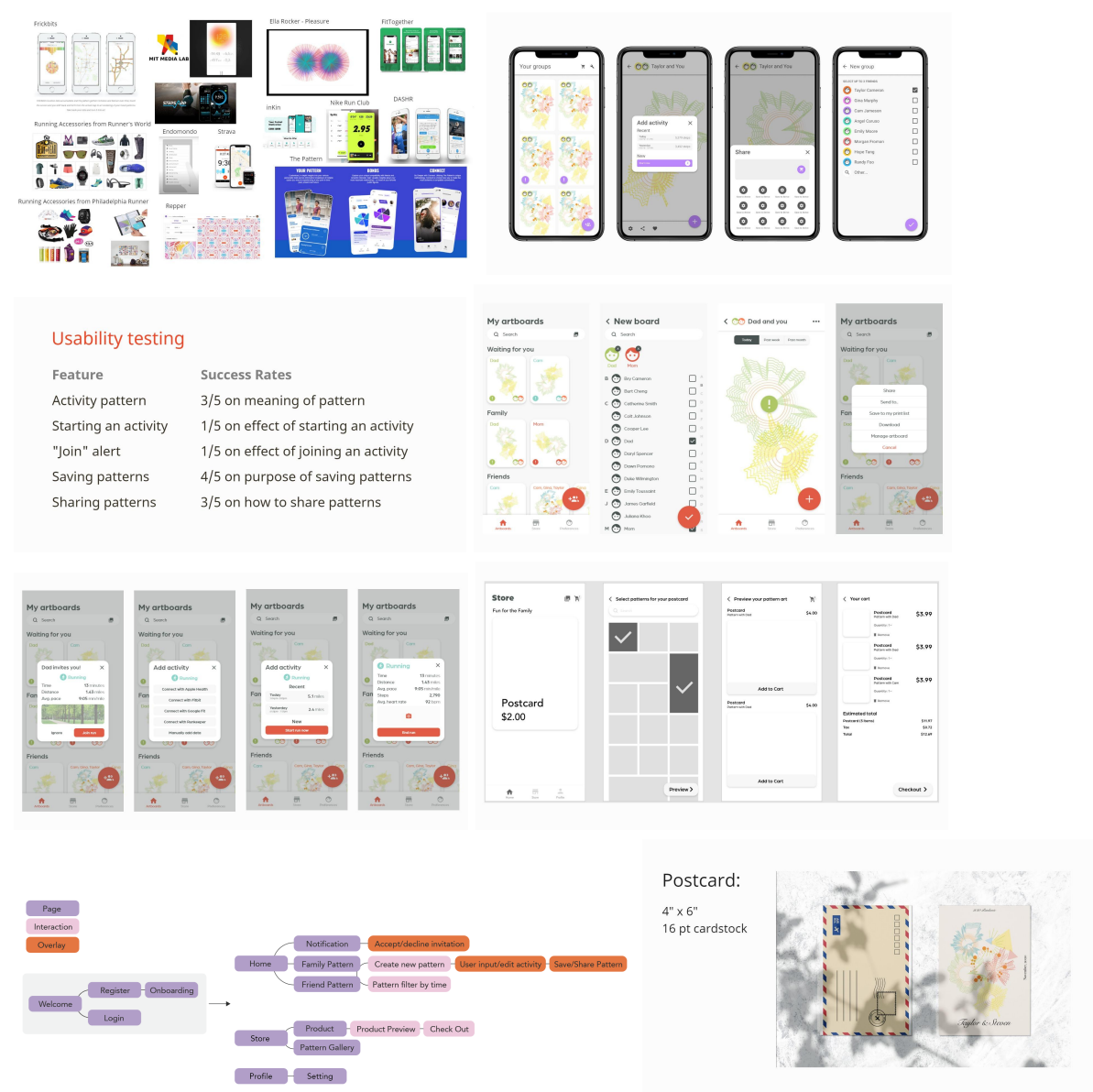


Post DR2, we elected to proceed with a single product: the self-visualizer concept. An initial digital prototype was created in Figma and distributed for usability testing among 5 respondents.



Multiple issues were identified, which then informed further refinement of the product prototype. Additionally, we solicited feedback and suggestions on features, visuals, and pricing for the product. The user personas were also developed into their final iterations as seen in the Market Analysis section.

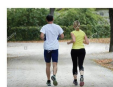
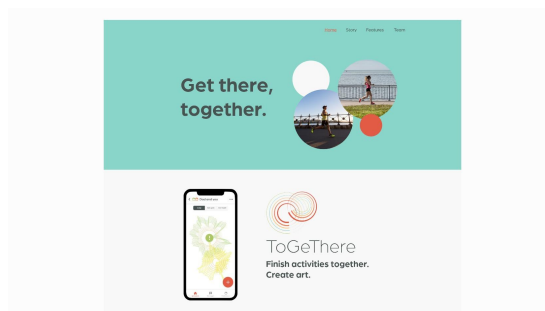
As development of the product progressed, a system map was produced to map the relationships between distinct features of the product alongside blueprints for the creation of the visuals (presenting how data points would be translated into art). Initial costing estimates were made to project the cost of development of the digital app as well as for postcards. Additionally, marketing efforts were started with the genesis of a product name, logo, color scheme, website, and video storyboard. These were all presented to a Design Review 3 (DR3) panel for review. Full details on DR3 can be found in the following Miro board: [https://miro.com/app/board/o9J\\_ki8cmKA=/](https://miro.com/app/board/o9J_ki8cmKA=/).



## Design Iterations



## Final Design



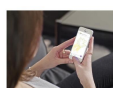
Long Shot



Long Shot



Medium Shot



Medium Shot



Close Up Shot



After concluding DR3, additional activities (biking and yoga) were added to the product to broaden its appeal to users. The prototype was also presented to several respondents for user testing to elicit feedback, and this was used to refine the art, add an introductory onboarding, and polish the overall quality of the product.

Concurrently, the final visual identity of the product was developed with warm colors and positive illustrations, to emphasize the theme of the app as a motivational, social product that reduces feelings of isolation. ToGeThere's marketing video and website were produced with these goals in mind and were successfully launched prior to the IPD Trade Show. The final product website can be accessed through the following link: <https://ipdtogether.wixsite.com/together>. Images of the final product are displayed below.

# IPD ToGeThere Business Plan

