# Sponsor and Project Name

Sponsor Name: Spreetail

Project Name: 360-Degree Photography

# Poster Description

The goal of the Spreetail Senior Design Project was to develop a 360-degree camera hardware and software solution to expedite current tedious processes related to taking and editing 360-degree media. Two cameras capture photos from two different angles of a product rotating on an electric turntable, and the cameras are controlled via a computer tower. A user-friendly front end allows users to view preview images as well as capture and select images from a 360-degree rotation to be stored.

# Year in Review Report Description

The goal of the Spreetail Senior Design Project was to create a process for taking automated 360-degree photography of rotating products for use on Spreetail’s new site, Spreetail.com. There are three main components to the project that work together to provide an automated photography solution for the user. These components are comprised of a user-friendly front end, a hardware component to take images, and a communication system to transfer data and images between the front end and hardware components.

The solution’s front end allows a user to view preview images of the product on the turntable to ensure that the product will be in the center of the frame. It also allows users to capture a full rotation of images of the product, which are displayed for the user, so that they may select which images they’d like to keep. These images are stored into Spreetail’s Azure Storage to be used for Spreetail.com. The hardware component consists of two DSLR cameras, two camera tripods, a rotating electric turntable, and a computer tower running Linux to control the cameras.

The solution created will improve the labor intensive process of product photography. Users can place an item on the turntable, start the photo taking process, and proceed to getting the next item in the warehouse. The photos produced will allow Spreetail to create a component for 360-view to be used on their website, increasing the photo quality compared to other ecommerce sites.

# Images

* **Example\_Product\_Image.JPG** - This is an image taken by one of the cameras for this project, a Canon EOS 6D Mark II.
* **Hardware.jpg** - An example hardware setup for taking images of a product spinning on the turntable.
* **Capturing.PNG** - The output page while the hardware is capturing images.
* **Preview\_Page.PNG** - The starting page of the front-end, this is where a user can request preview images or a full capture.
* **Output\_Page.PNG** - The output page shows the thumbnails of a full capture and allows the user to select which images to remove from the set.
* **Larger\_Image\_View.PNG** - Part of the output page where the user can view a larger version of the images.

# Team Members Names

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| --- | --- | --- |
| First Name | Last Name | Role |
| Taher | Ahmed | Squad Lead/Product Manager |
| Jared | Nightingale | Development Manager |
| Brett | Middle | Developer |
| Anthony | Tran | Developer |
| Yang | Xiao | Developer |
| HaoZhou | Li | Developer |