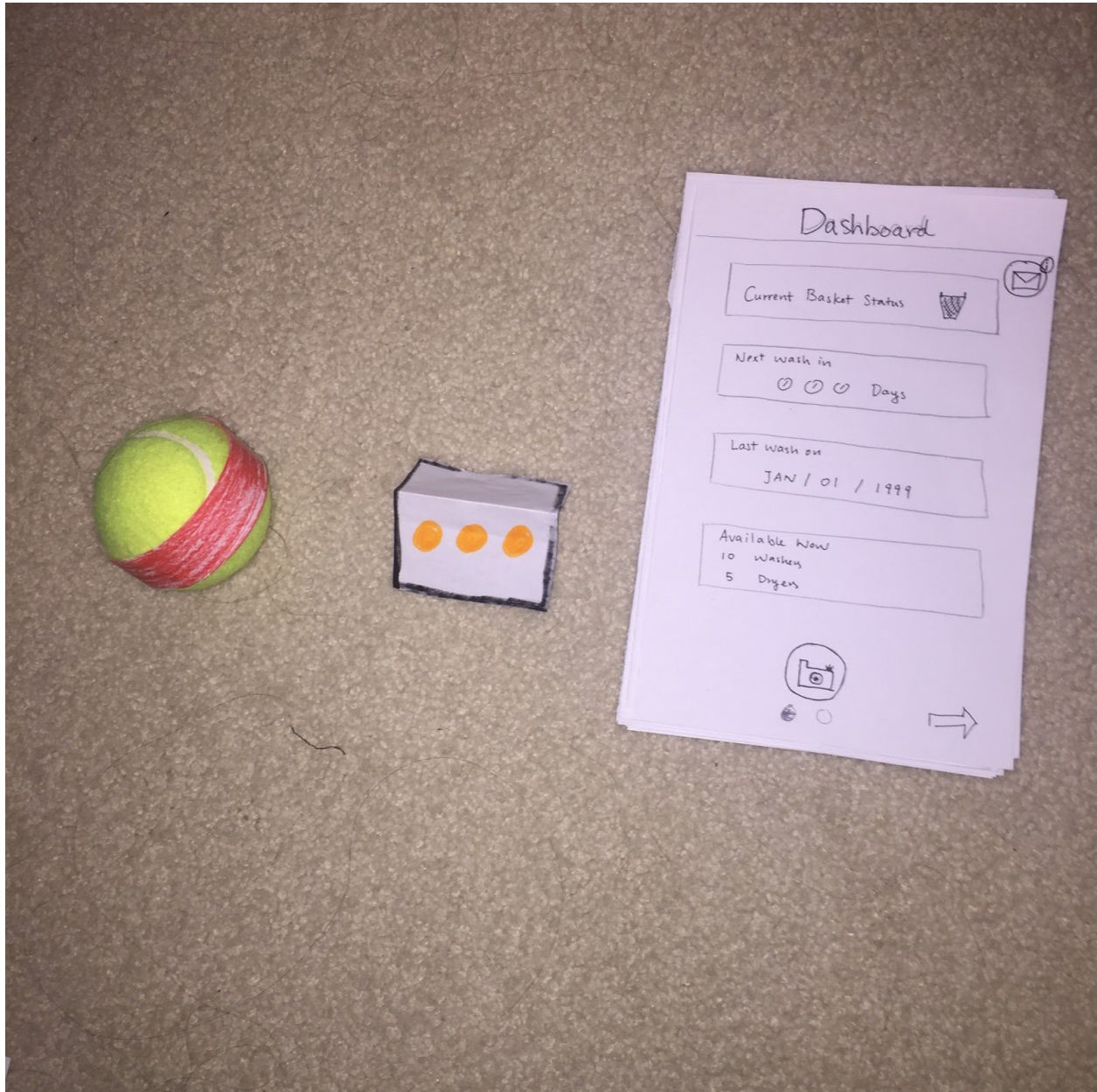


Assignment 3a: Paper Prototype

Team members: Atharva Naik, Emily Zhang, Hang Bui, Sam Wolfson

Overview



The ball, basket measuring device, and app interface shown together.

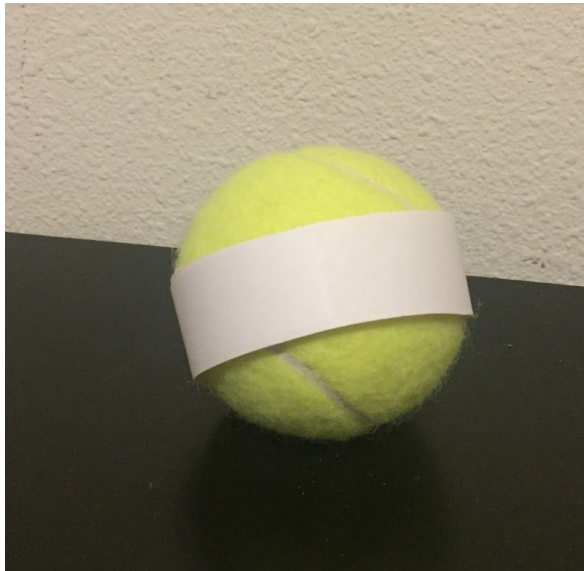
Assignment 3a: Paper Prototype

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Task 1: knowing when to do laundry



As they wear their clothing, the customer puts it in their hamper as normal. As the amount of clothing in the hamper increases, the sensor measures the weight of clothing in the basket.



In the default state, the ball does not light up. It sits on a table in a charging dock.

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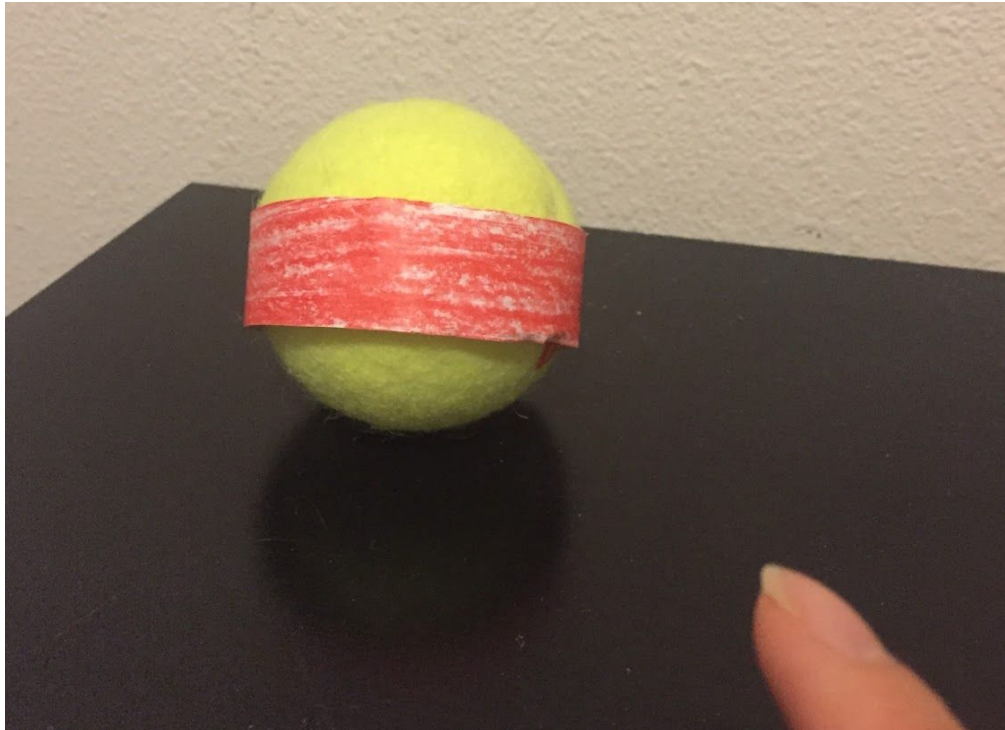
Team members: Atharva Naik, Emily Zhang, Hang Bui, Sam Wolfson



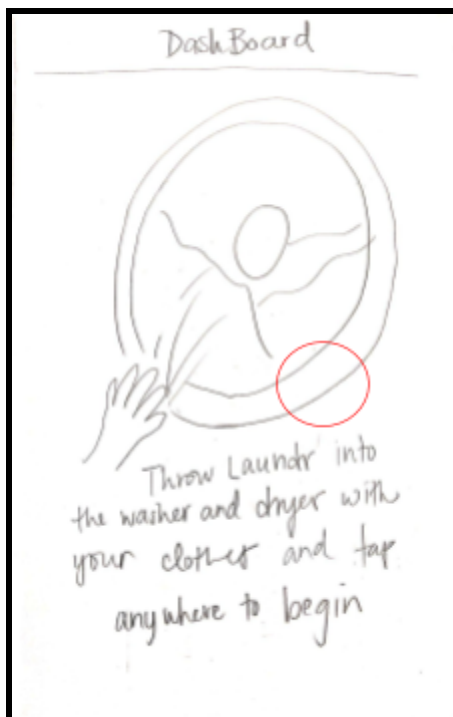
When the basket is full, the weight sensor communicates with the ball to indicate that laundry should be done soon.

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The ball lights up to indicate that the basket is full and that the customer should do laundry soon.



Once you are ready, the app indicates how to use the ball: throw it into the washer with your dirty clothing so it can sense when the washer is finished.

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The customer places the ball in the washer with their clothing, then starts the washer as they normally would.

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Task 2: Knowing when your laundry is done

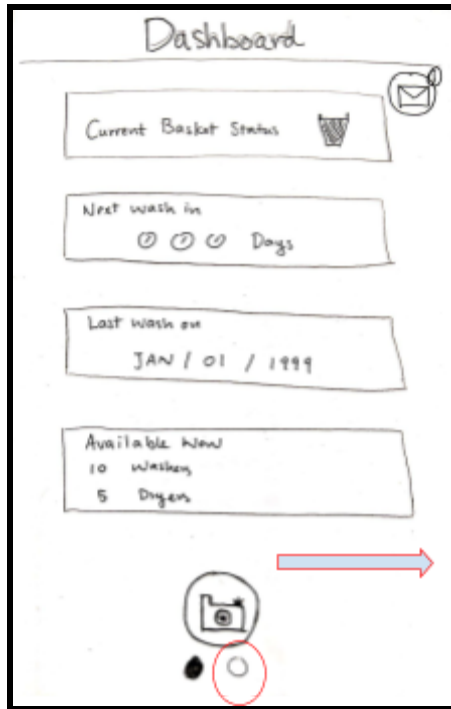


Figure 2.1: Homepage of the mobile app (swipe left to proceed)



Figure 2.2: Displays the washer and dryer status.

The customer open the mobile application and lands on the homepage. On swiping left, the customer is taken to the next screen which shows the current status of the washer and the dryer.

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Figure 2.3: Alert Screen

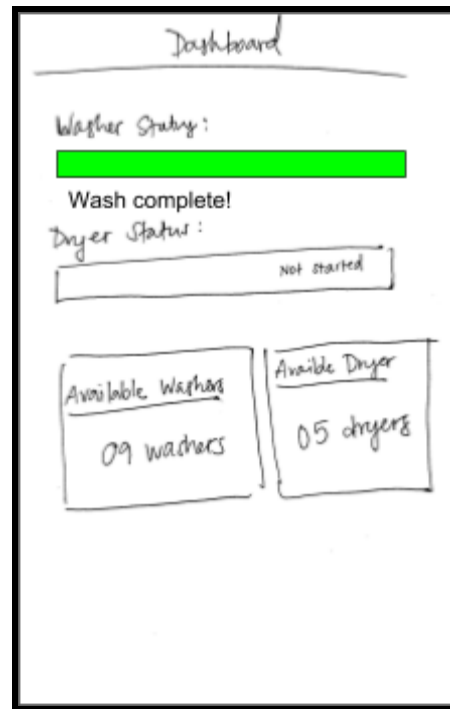


Figure 2.4: Washer status

The customer gets an alert on the app when the washer cycle is complete and gets to check if the dryer is available. This can be customized so that the customer is only notified when the washer is finished and a dryer is available.

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Once a dryer is available, the customer knows to go down to the laundry room and move their clothing into the dryer. They also place the ball, which will sense when the clothing is dried, into the dryer.

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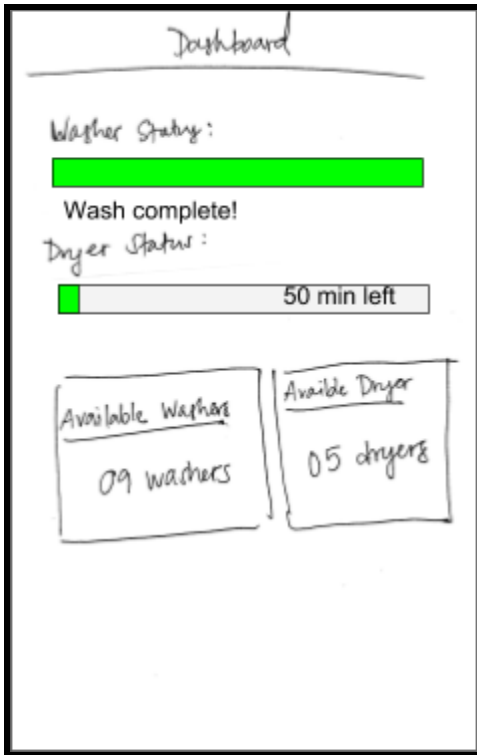


Figure 2.7: Washer/Dryer status screen



Figure 2.8: Alert screen

The ball monitors the moisture level of the clothing, and sends another notification to the app when the clothing is dry. The customer then knows exactly when they can come to retrieve their clothing.