

# Software for Assessing Scanning Performance with Single Switch Technology



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## Introduction:

The use of single switch scanning technology can assist persons with disabilities in accessing technology. An assessment must be conducted, however, to identify the best switch location (e.g., head, hand) and set-up (e.g., scanning speed). Assessment software such as Scanning Wizard (Koester) can support the decision-making process, but current technology is designed for adults (e.g., provides alphabet letters as targets). There is a need for scanning assessment software that can meet the needs and interests of children.

## Objective:

- Create a User Interface (UI) that contains familiar images and is easy for the children to use that will assist in collection of data to support decision making, switch placement and set up.
- Scanning assessment tool will use images instead of letters.

## Scanning Software:

- Scanning assessment software is adapted from Scanning Wizard (Koester).
- It will feature an option of selecting between one, two or three row set-ups with three pictures in each row.
- The blue highlight frame scans through the pictures one at a time.
- Once the desired image is highlighted, the child would press a switch
- The child needs to match the picture shown provided at the top as shown in figure 2.
- The assessment tool will collect and present data on the child's performance as shown in figure 3.

## Technologies Used



- Ember.js  
-handlebars
- HTML
- CSS styling

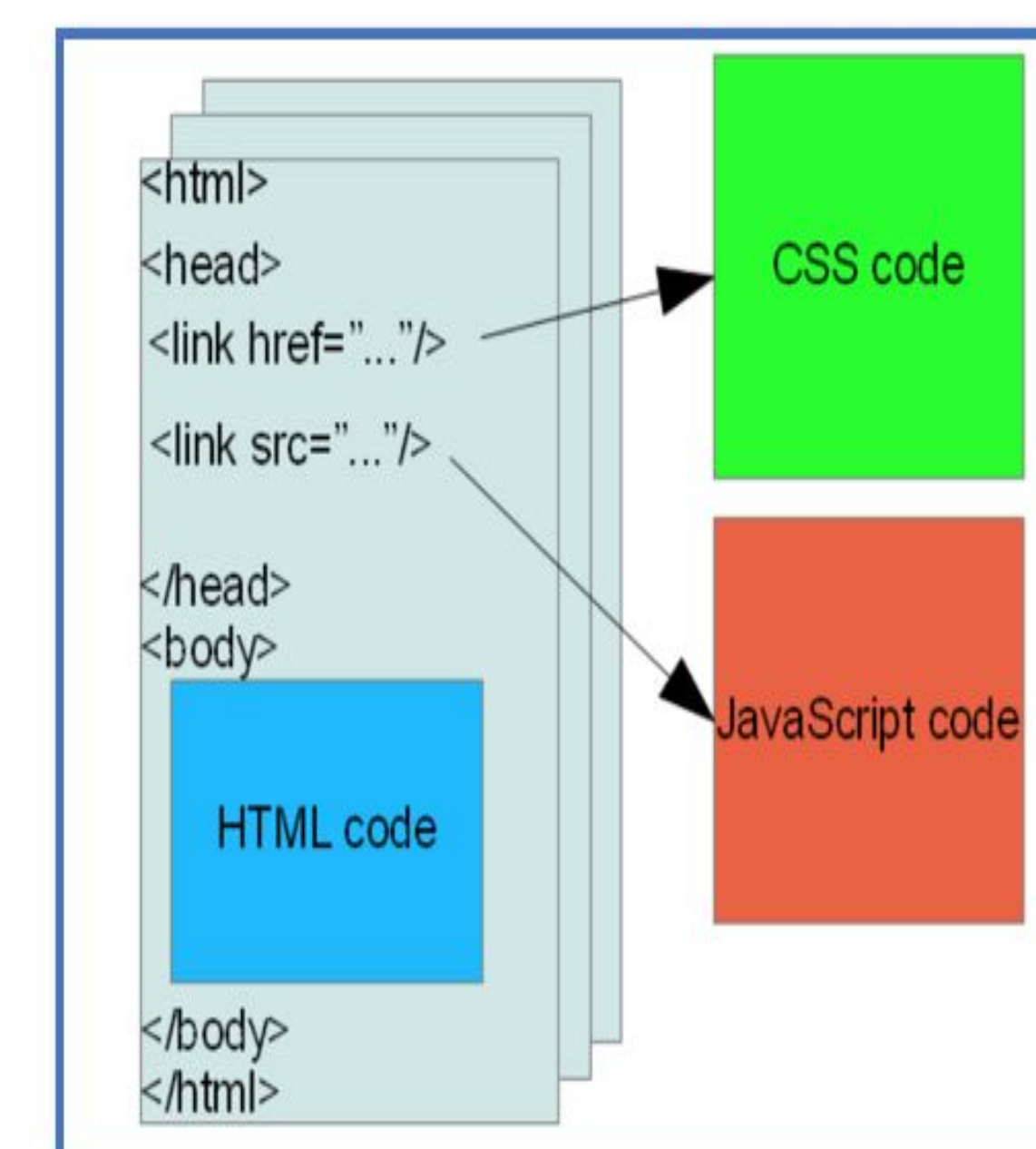


Figure 1, Technology Used

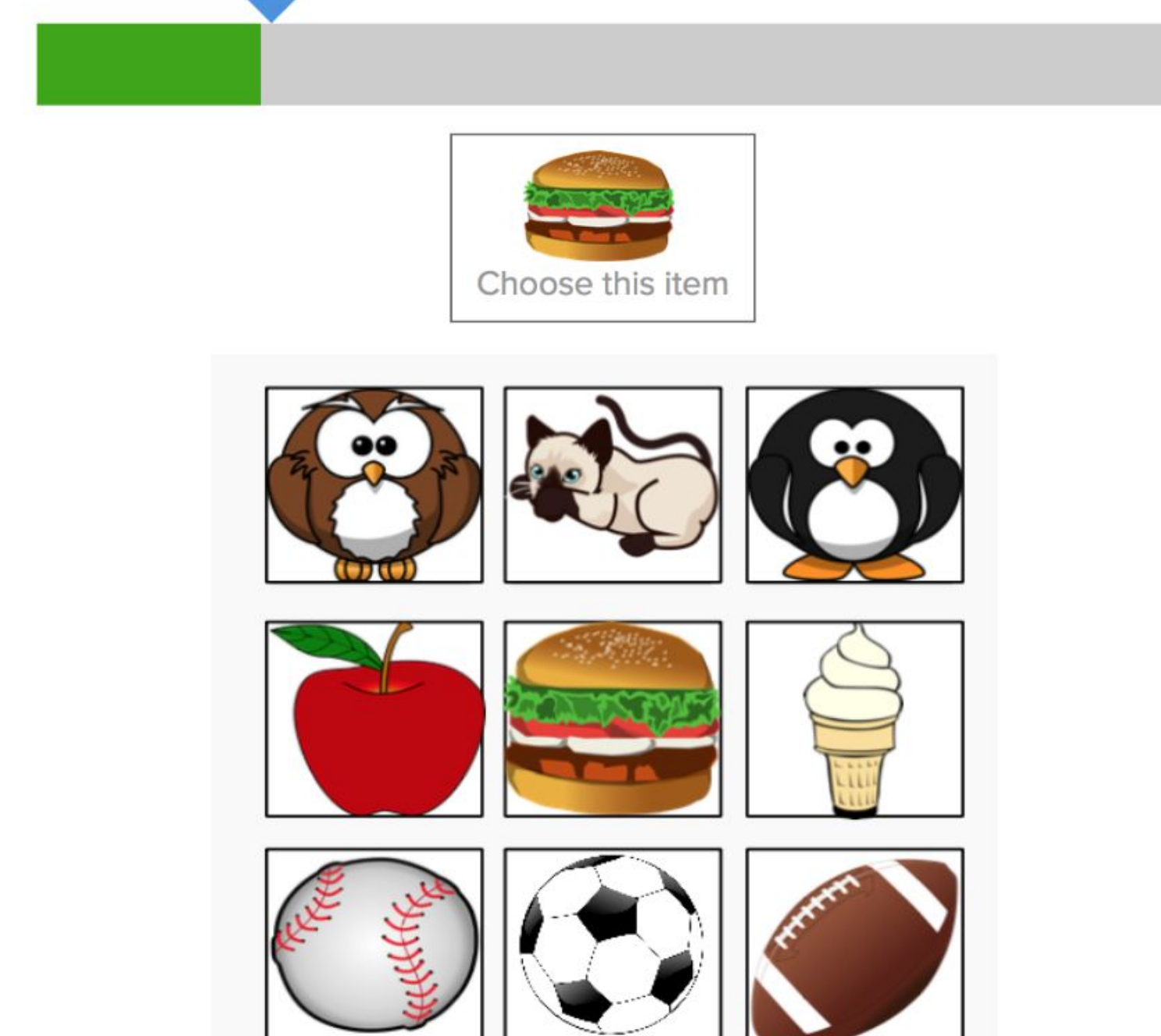


Figure 2, Scanning

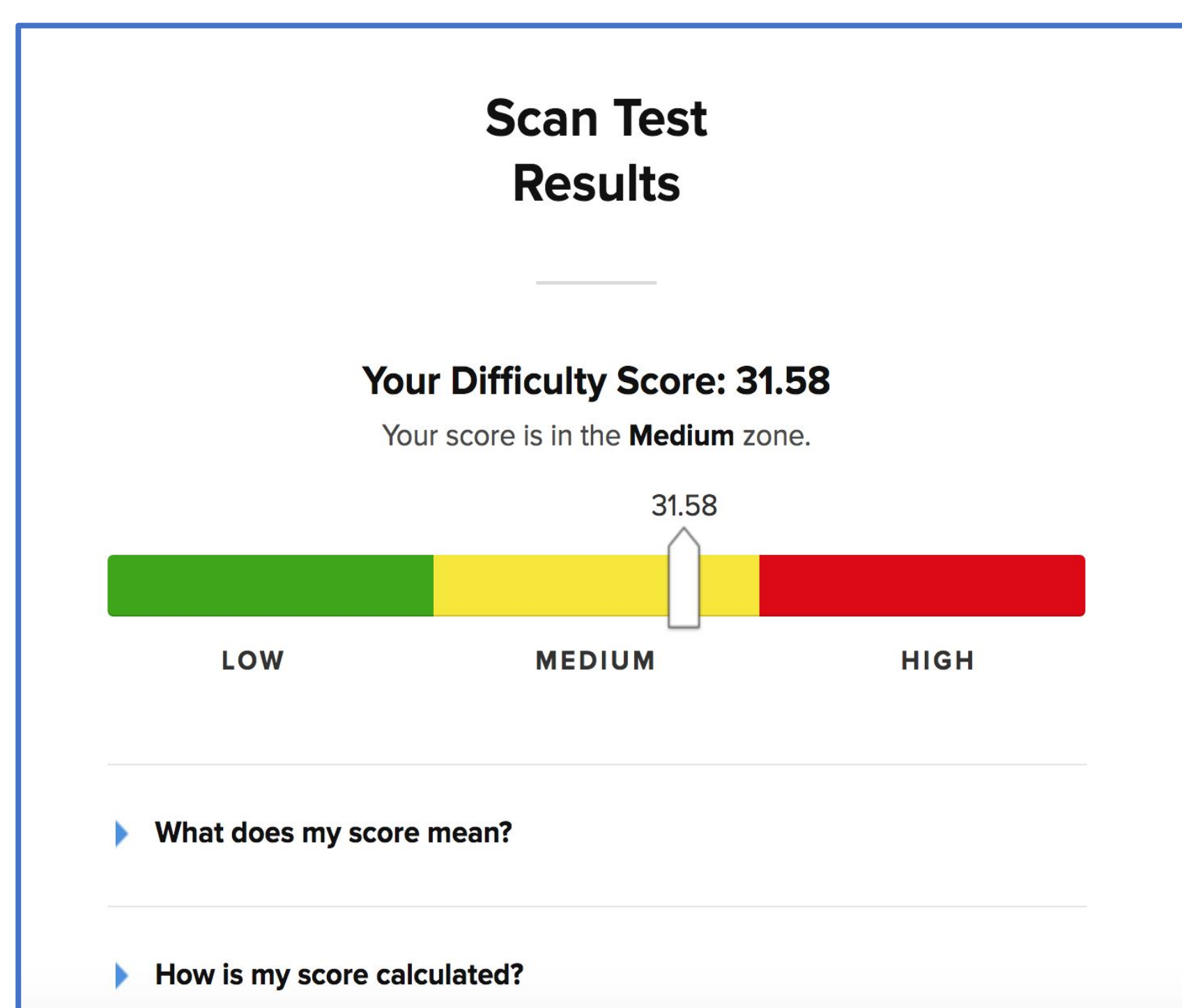


Figure 3, Scan Results

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## Conclusion:

By using photos and optimizing the timing of the scanning method provided by the application Scanning Method, scanning will become more beneficial for children. This concept can be used so that clinicians can gather more accurate information on how children are able to scan.