The Conscientious Sink

Andrew Cerrito, Karl Ward, Jon Wasserman

The Beginning:

Initial Concept:

Desired Interaction: Encourage clutter-free sink through interaction with various media.

Media Controlled:
Video (friendly projections, scoreboard)
Audio (encouraging/rebuking messages)
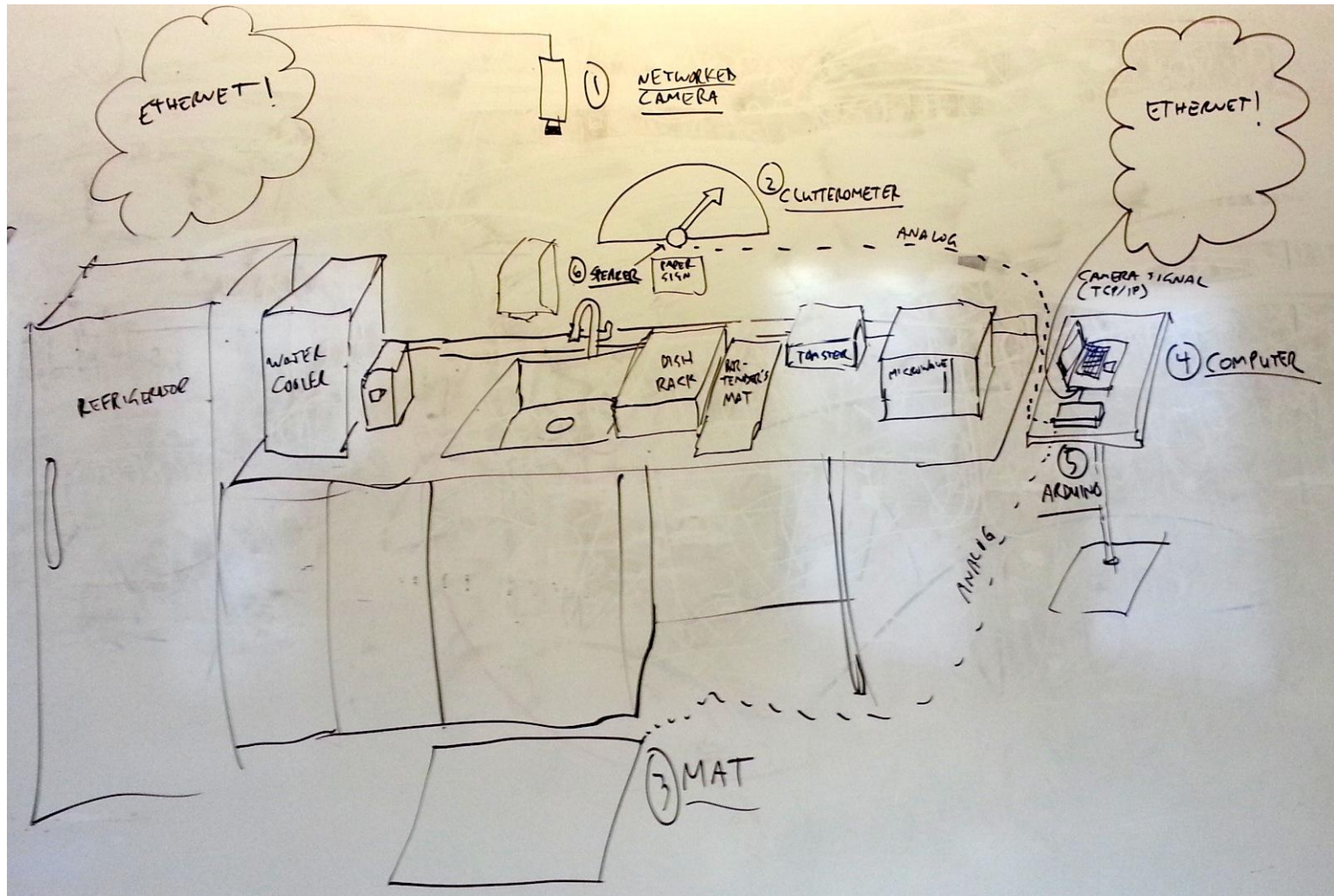Clutterometer (physical or video meter of sink state)

Detecting Sink State:
Analyze data from overhead network camera using background subtraction.
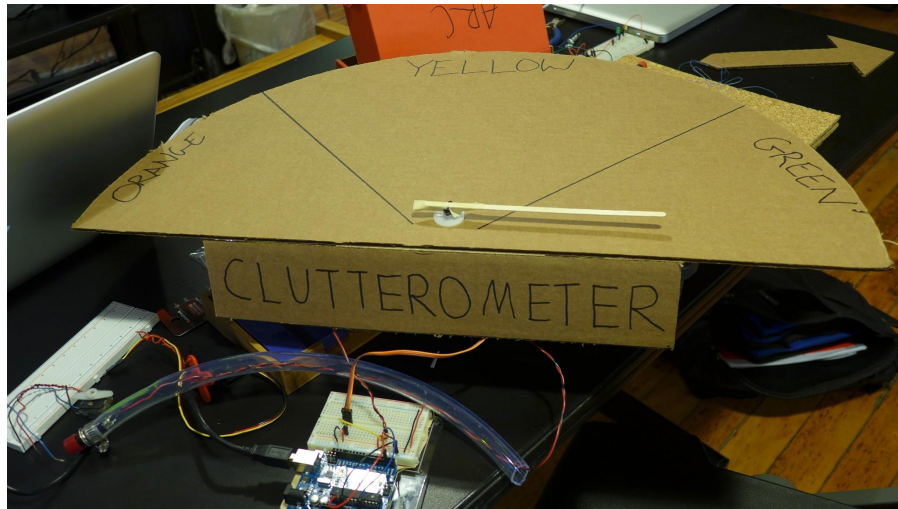
Refinement/Playtesting

- Decided on physical clutterometer, not video
- Added mat to detect user & activate system

Refinement/Playtesting

Prototype Meter:
Users adjusted meter to reflect their own actions, not the overall state of the sink.

Prototype Mat:
Used dirty footprints to determine ideal mat size & positioning.

Construction

Clutterometer:
Lasercut plastic base and color wedges with embedded speaker and servo mounted in back.

Mat:
2 FSRs wired in parallel sandwiched between mat and corkboard pads.

Project Issues

Clutterometer: Affixing plastics to each other, mounting the servo

Mat: Broken FSR, conceptual error in hooking up wiring (series instead of parallel), highly variable range in FSR response

Programming: Delays in constant two-way serial communication, shadows interfere with background subtraction

Cut for time: Blob detection, wider range of sounds

What.

Fin