Mid-Term Demo Proposal

Group 4: Jamie Bragg (2137481) Sean Coaker (986529) Dylan Perry (961883) Ryan Lucas (951998)

Implemented in the mid-term demo is a scaled down version of the Every Dice. The demo features 3 LCD screens which represent the faces of the dice. The output of these screens is programmable, so they allow for more than just numbers seen on regular dice. The information shown on the screens of the device is dictated by the users input into the companion app. The number of entries is not limited to the number of screens. Through this, the user can customize how many possible “sides” the dice can have. The user can choose the number of “sides” on the dice and customize their content using a text field in the app. Their choices will then be displayed within a Recycler View where they can later remove those choices. The screen itself does not wake until the app is opened, allowing for the dice to blend into the background. The dice includes a spatial phidget which detects when the dice is rolled and the position of the resting dice to find the chosen outcome. The dice also features servos that when actuated would allow the dice to roll by itself. As the dice is not yet in a cube chassis, the servos do not move the dice as of yet, but the movement of the servo and their intended function will be demonstrated.

In the demo, users can interact with the dice by moving the spatial phidget around to replicate the feeling of moving a dice around in their hand. This is not a seamless interaction as the components are still separated and do not resemble a tangible cube as users would expect of a dice. When the device is placed inside a cube chassis, the interaction will be more seamless as it would replicate the affordances of a regular dice, but the chassis is outside of the scope for the mid-term demo.