Concept

The goal of this game is to help sharpen math skills for kids who
are blind or otherwise hard of sight. Thus it serves as both a
serious (educational) game and an enabling technology.

Roughly speaking, the game is a puzzle game where players solve simple
math problems by popping bubbles corresponding to solutions to questions.
Correct solutions earn points and progress to subsequent levels (where
the questions get more challenging), while incorrect answers lose points
and must be answered correctly at the end before progressing.

Because we are targeting blind kids, the questions will have to be simple
enough to be dictated to the player (e.g. "3+5=?"), as well as solvable
in their head. The exact mechanics behind answering the questions has not
yet been finalized, but will likely be one of two possible systems:

   1) The player uses an Xbox controller to move a cursor around the
      screen. A combination of audio and haptic feedback will let the
      player know when their cursor has entered the perimeter and what
      the corresponding answer is, allowing the player to choose whether
      they want to pop the bubble or move on. This may incorporate something
      to a sonar ping to gain spatial awareness of the field.

   2) The player uses an Xbox controller to select between one of 8 / 16 / 24
      pre-determined directions on the Analog Stick(corresponding to bubbles
      fixed in space on the screen), where audio feedback will let them
      know what the answer is. They will then have the option of popping
      the bubble or selecting another one.

In addition to the basic mechanics described above, we would like to
incorporate a streak system for assigning even more points, and possibly
a speed mode where players attempt to answer as many questions as possible
within a given time frame.

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"Sharpen your math skills while popping bubbles in this action-packed puzzle
game."

Roles/Assets/Version Control

Tentative roles include the following:

1) Basic gameplay elements (Deven)
2) Graphics programming (Federico)
3) Sound programming (Ryan)
4) Art and other assets (Jing)

These are subject to change as new needs emerge during development.

Assets will hopefully be hand-generated, but we may incorporate free assets from e.g. the Unity asset store if we find something good enough.

We will be using Git for version control and have already set up a shared repository on GitHub, and a website for submission.