"La PC-na"
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We will build a pool table that combines the virtual world with the physical world. A pool table, along with its balls and pockets, will be displayed virtually on TV screen. Players will use physical cues to interact with the displayed table by "hitting" virtual balls on the screen. The display will update accordingly to mimic the motions that the balls would exhibit in a real-life pool table. We will use a camera with an IR filter to track the motion of the physical cue and determine when a cue has collided with a virtual ball. An accelerometer and gyroscope will be mounted on the cues to determine the speed and angle at which the cue hits a virtual ball. Other features that could be added include sound, score, and enhanced animations/graphics.