Richard and Jen Ace Stochastics

Gamblers who play engineering students Richard and Jen's handy desktop slot machine simply insert a coin and press a button or pull a handle. Three stepper motor microcontrollers generate a random number between 0 and 7, using this number to spin the three reels to new positions. For a cool visual effect, the reels are spun through multiple rotations. If the reels arrive at a winning combination, "winner" is displayed on an LCD, chimes ring, and a central microcontroller sends pulses to a relay that runs a set of solenoids that push out the winning coins. Viva Las Vegas!

For Richard Hopkins and Jen Harmel's complete instructions on how to build your own penny slot machine, microcontroller code, and a video of the slot machine in action, go to http://rbi.ims.ca/4391-509.