

Bat Bird training is now complete. From one to two months are needed to train a Bat Bird chicken.

#### The Capsule Vending Chicken

The Capsule Vendor in its final form delivers a small plastic capsule which contains a toy or souvenir. When the chicken is given the signal (a light comes on near a plastic loop attached to the vending device), the bird pulls on

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a loop which releases one of the plastic capsules. The capsule rolls down a metal ramp. The chicken pecks the capsule off the base of the ramp into a chute which delivers the capsule to the customer.

Birds are selected for small size and loop-pulling ability. Large birds are able to pick up the capsules rather than just pecking them into the chute. To the chicken, the capsule is something good to eat, such as a cricket or grasshopper, so the bird tries to catch it. Smaller birds are unable to grasp the capsules in their beaks. Strong loop-pulling ability is needed to release the capsules from the vending compartment.

After a suitable Capsule Vending Chicken has been selected, the first training step is to teach the bird to knock the capsule down the chute. The trainer places a capsule at the top of the chute; sometimes the chicken will peck at the capsule without any special prompting. If a chicken does not readily peck at the capsule, the trainer may place a grain of feed under the capsule. When the chicken knocks the capsule down the chute, the electric feeder says YES and rewards the bird. If a chicken does not readily peck at the capsule even with grain under it, the trainer may use a pushbutton to work the electric feeder and reward the chicken if it looks at or strikes ever so lightly at the capsule.

Once the chicken has learned to knock capsules down the chute quite regularly, the bird is taught to pull the loop to release the capsule from the vending bin. If the bird pulls hard enough, the capsule is released and rolls down the ramp to the top of the chute. Now the chicken can peck at the capsule, knock it down the chute, and be rewarded.

When the chicken has mastered loop-pulling and pecking at the capsule, the bird must now learn to pull the loop to start the sequence only when the signal light by the loop is turned on. In the early stages of training, the signal light has been on continuously. If the bird pulls at the loop when the light is off, nothing happens; no capsule

comes down the ramp, and the bird does not have the chance to be rewarded. And so the loop-pulling with the light off soon drops out (becomes EXTINGUISHED), and the bird learns to pull at the loop only when the light is on. It takes about one to two months to train a Capsule Vending Chicken.

### The Postcard Vending Chicken

The Postcard Chicken begins by pulling a chain to light up a "Thank you" sign. Next the chicken pulls a loop to vend a card, after which the bird is rewarded.

This performance, like many of the other acts, involves a CHAIN of behavior: first, pulling a chain in response to a signal light, and then pulling a loop when another light turns on. Training begins by selecting strong loop-pulling chickens in the testing device. When we start training a chicken in the Postcard Vending equipment, we turn on the light by the loop. The chain is out of sight. Normally a good loop-pulling bird will go to the loop fairly quickly and tug at it. If not, some of the "tricks" are used, such as putting grain on the loop, wiggling it, and so on. At first the trainer is using a pushbutton and rewards the chicken even if the first pulls are not hard enough to work the vending device. The trainer then rewards stronger and stronger tugs until the bird is pulling at the needed strength (remember DIFFERENTIATION?).

Only one good tug is needed to work the vending device, so there is no need here to build up a ratio, but we do have another step in the series of responses, and two DISCRIMINATIONS to learn. The chicken must learn to pull the chain to turn on the signal light for the loop, to pull the loop only when that light is on, and also, to pull the chain only when the chain's signal light is on. So we now conceal the loop, but make the chain available. We turn on the signal light by the chain and encourage the bird to tug by wiggling the chain or "baiting" it with grain. The trainer may reward weak tugs at first, then harder ones, and drops out the extra cues such as grain. Soon the bird is pulling the chain hard enough to turn on the signal light by the loop.

Now we tie the two parts of the series together. With the light on by the chain, we ask the chicken to pull the chain, turn on the loop signal light, go to the loop and tug it hard enough to release a card. If the bird does not turn on the light, the loop will not work -- it will not release a card and it will not work the feeder, and so the loop-pulling without the signal light drops out (remember EXTINCTION?).

When the bird has learned these two parts of the response chain, we teach the final DISCRIMINATION: The bird must learn not to tug on the chain unless that signal light is on. The trainer now turns out that light, and the bird learns that tugging on the chain will not be rewarded by the loop light coming on and the feeder firing at the end.

Training is now complete. It usually takes about one to two months to train a Postcard Vending Chicken.