

The Isolator

The first stage of the process is isolating one brick at a time out of the unsorted heap. All the mixed-up bricks are poured into the top of the triangular box at the top. The box acts like a bingo cage: when it is spun via the hand-crank on the side, the LEGOs tumble around inside, and fall through the hole one at a time. They fall into the scoop, sized to hold one brick, which drops them onto the slides so the bricks can move on to the next phase. While actual bingo cages are circular, the same shape as the bingo balls, we did not make our box square to match the LEGOs. This is because a square box has right-angle corners that LEGOs can get stuck in, whereas the corners of a triangular box are too small for LEGOs to get into in the first place.

The isolator box is intentionally low-tech. The spinning is human-powered, to give the machine a more interactive component. If we had just put a motor on the box instead of a hand-crank, the whole process would just be something to watch, instead of something kids can take part in.