An apparatus was designed that presented an on-screen cursor whose horizontal and vertical positions could be independently manipulated via two hand-turned dials (Figure 1). Each dial was connected to a potentiometer which communicated a scalar value to the computer program based on its angular position (mapping 110 degrees of possible angular displacement to an arbitrary unit ranging from 1 to 1024). The scalar values were then converted to pixel units, yielding the *x* (for the left dial) and *y* (for the right dial) screen coordinates. This mapping resulted in the on-screen cursor moving ~9.31 pixels along each axis per degree of angular displacement from the respective dial.

When the dials were moved concurrently, the shape of the cursor's trajectory resulted from the phase relation (φ) between the dials (i.e., a Lissajous curve). The trajectory formed a circle when the dials were moved at φ = 90°. A "target" indicator traced the shape of a circle continuously at a constant oscillation frequency and amplitude. The circle that the target traced was also continuously indicated on the screen in a thin, black line. Participants were tasked with controlling the cursor to follow the target along the circle as closely as possible by manipulating the dials in the appropriate fashion, which they had to discover—they were not explicitly instructed to produce a 90° phase relation. Participants not only had to reproduce the trajectory of the target but had to move in time with it. The *implicit* task for participants at the coordination level was thus to learn to oscillate their cursor's *x* and *y* positions (via the angular position of each dial) at a 1:1 frequency ratio with a 90° phase offset—to learn to stabilize an inherently unstable bimanual coordination pattern… The target's peak-to-peak amplitude (i.e., circle diameter) remained fixed with an on-screen displacement of 7.50 cm and requiring 55° of angular displacement from each dial (Annand et al. 2020, manuscript under review).