

DinoEgg: a Device to Provide Directed Speech

What We Aimed to Do:

Nationwide Children's Hospital (NCH) contacted CDME to build a functional and reproducible device for user testing. The purpose of this device called DinoEgg is to provide infants in the Neonatal Intensive Care Unit (NICU) directed speech to promote speech sound differentiation. We were charged with refining the electronics by adding Bluetooth communications and wireless charging, as well as make the housing sanitizable for use in the NICU.

What We Did:

CDME selected medical grade materials for the egg shell and removable cover that was sanitizable and which could survive a drop. We redesigned the electronics to incorporate wireless charging and Bluetooth communications. A recording of a parent's voice can be made and uploaded to the DinoEgg via Bluetooth. The recording plays to the infant for 20 minutes at a time when the parents are unable to be with them. CDME added a power button and LED to indicate power and charging. A wireless charging station called the nest was designed. Forty (40) eggs and covers were produced along with eight charging nests for user testing.



DinoEgg with cover in charging nest

What's Next:

Thrive Neuromedical, LLC is working with NCH to license this technology. CDME is supporting Thrive Neuromedical by building additional DinoEgg devices as they work to commercialize this product for use in hospitals.

To learn more about this project, contact Mary Hoffman Pancake (pancake.6@osu.edu)