

# Farmer Noah

Original System for Spatial Awareness  
and Mobility Training

• Youth and Adult versions

• Master the detection and  
use of non-visual cues  
in the environment



**dxdt Engineering and Research, LLC** has developed a brand new system for training Blind and Deaf-Blind children and adults to master their environments.

## How does it work?

In the children's version of this system, eight (or fewer) electronic "farm animals" are positioned randomly within a room or any indoor or outdoor environment.

There are four different types of farm animals. The orientation and mobility (O&M) trainee is asked to find the pairs of animals.

When one animal is found, and tapped with a cane, it makes the sound of the animal it represents. The system registers the animal.

If the next animal the trainee finds is the same kind of animal, those animals have been paired and are taken out of play (they are put on the ark).

The process is repeated until all of the animals have been paired and placed on the ark. The system records the time required to locate all of the pairs of animals.

The paths between the animals are characterized by different objects, scents, sounds and sensations that most sighted people take for granted.

The system provides an enjoyable and stress-free way to develop key skills necessary for successful O&M in any environment. Specifically, these skills are:

- Detecting non-visual cues in the environment
- Using non-visual cues to make detailed and accurate mental maps of their surroundings.
- Tracking their position and orientation with respect to their mental maps and the actual surroundings.

The skills developed in arbitrary Farmer Noah training environments are self-reinforcing and transportable to any environment.

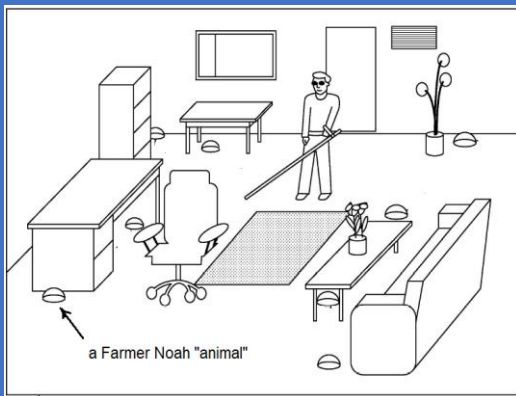
## Non-visual cues?

The non-visual cues include:

- The edges of carpets
- Furniture legs
- Door jams
- Radiant heat through windows
- Cool drafts through windows
- Sounds of household utilities
- Moving air through air vents
- Scents of plants, polishes, or foods



With Bandmaster Stevie Trainees compose a song by matching instrument tracks.



*Depiction of a Trainee advancing his O&M skills using Farmer Noah*

## What is different about the Farmer Noah concept?

The Farmer Noah team consulted with O&M experts in the blindness advocacy community and those experts said that they needed a tool to teach mobility cane technique to children.

Farmer Noah became much more. It became a tool for developing a “sixth sense” about spatial perception and a means to develop skills that will enhance the mobility and confidence of blind people in any environment.

Farmer Noah is 100% original and has been issued US patent number 12,274,664 B1

## Farmer Noah Available Now

System attributes include:

- iPad and iPhone support (not included with system)
- Compact, nestable units that are easy to transport.
- Rechargeable with x8 charger and cables included,
- Fully operable by the Blind
- Includes adult version “Bandmaster Stevie
- Automatic data collection and retention
- Versatile system carrying concept
- Upgradeable to include haptic features



*The Farmer Noah System Tablet Screenshot*

If your organization is interested in implementing this new technology on behalf of your O&M trainees, please contact us to discuss how we can work together.

**dxdt** Engineering and Research, LLC  
 c/o Dr. Christopher Hekimian  
 18936 Porterfield Way  
 Germantown, MD. 20874  
 HekimianCD@dxdtengineering.com  
 (301) 520-1575

Dr. Christopher Hekimian, the Principal Scientist for dxdt Engineering and Research, LLC has developed several technologies to assist and enable the visually impaired. These systems are:

- The world’s first computerized and most highly-functional Amsler grid;
- The Optical Occluder System for training for vision degradation; and;
- The Farmer Noah system for enhanced mobility training.

Dr. Hekimian has patented 2 dental health related products and has developed a system for stimulating coma and cognitively impaired individuals and a system for monitoring trends in cognitive ability.

Dr. Hekimian and his wife Christine fund independent research into treatments for genetic retinal pathologies at the Wilmer Eye Institute. Through the Joseph Albert Hekimian Research Fellowship Program..



[dxdtengineering.com](http://dxdtengineering.com)

The Joseph Albert Hekimian  
 Research Fellowship Program