

## Where are we now with the Farmer Noah concept?

The Farmer Noah system is in the “proof of concept” demonstration stage. dxdt Engineering and Research is looking for seed funding in order to produce the Farmer Noah Objective System. This system will have the following attributes:

- Smartphone App- supported
- Compact, nestable units that are easy to transport.
- Easy on batteries
- Battery health reporting
- Selectable between “Farmer Noah” for children and the adult version “Bandmaster Stevie”



*The  
Farmer  
Noah  
Demo  
System*

If your organization can help us to bring the Farmer Noah O&M training concepts to fruition please contact us so we can provide more information:

**dxdt** Engineering and Research, LLC  
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(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.

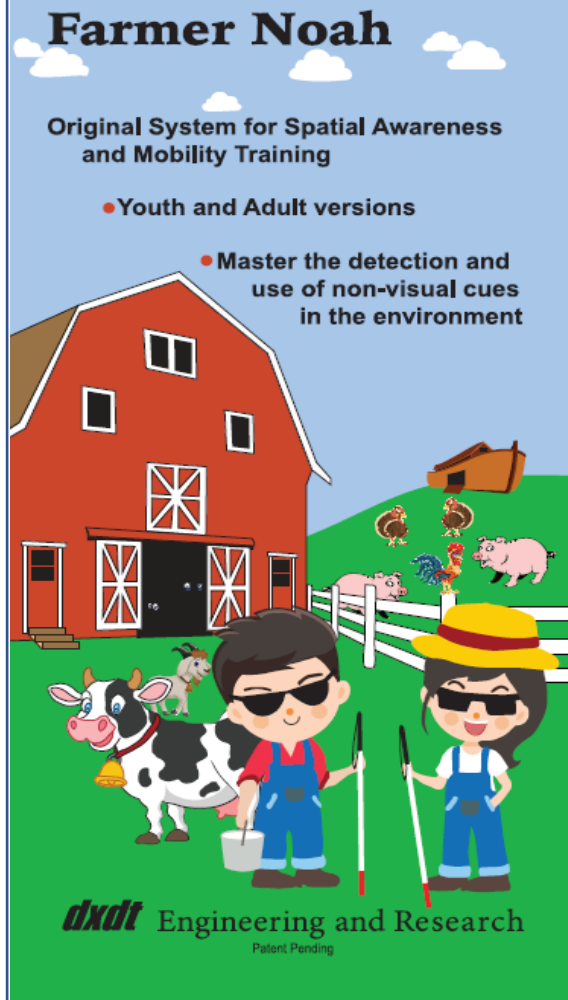
Dr. Hekimian has patented 2 dental health related products and has developed a system for stimulating coma and cognitively impaired individuals and a system for monitoring trends in cognitive ability.

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



# 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  
Patent Pending

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

## How does it work?

In the children's version of this system, eight 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.

While the trainee is completing the exercise- which seems like a game - our system is challenging and training them to detect and use all of the characteristics of the environment to make mental maps that they can then use to navigate with more safety and confidence.

## So, what are these non-visual cues?

The non-visual cues will be different for different environments. They will include:

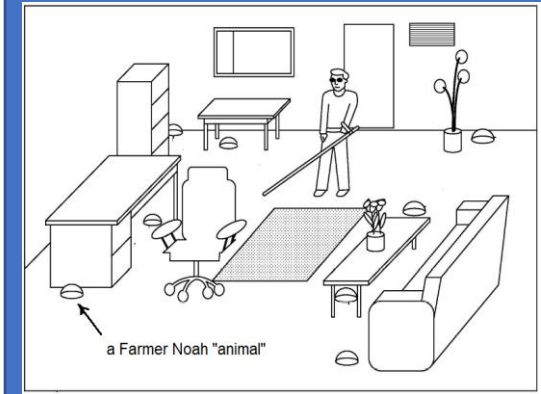
- The edges of carpets
- Furniture legs
- Door jams
- Radiant heat through windows
- Cool drafts through windows
- Sounds of household utilities
- Moving air through air vents
- Scents of plants, polishes, or foods

The list goes on and on.

Our system trains the Blind to use these cues like navigation beacons in their surroundings.



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 the blind in any environment.

Farmer Noah is 100% original and a patent on the system and method has been applied for.