

# Facilitating Communication for Non-Verbal ALS Patients with Utilization of a Low-Tech Laser Pointer

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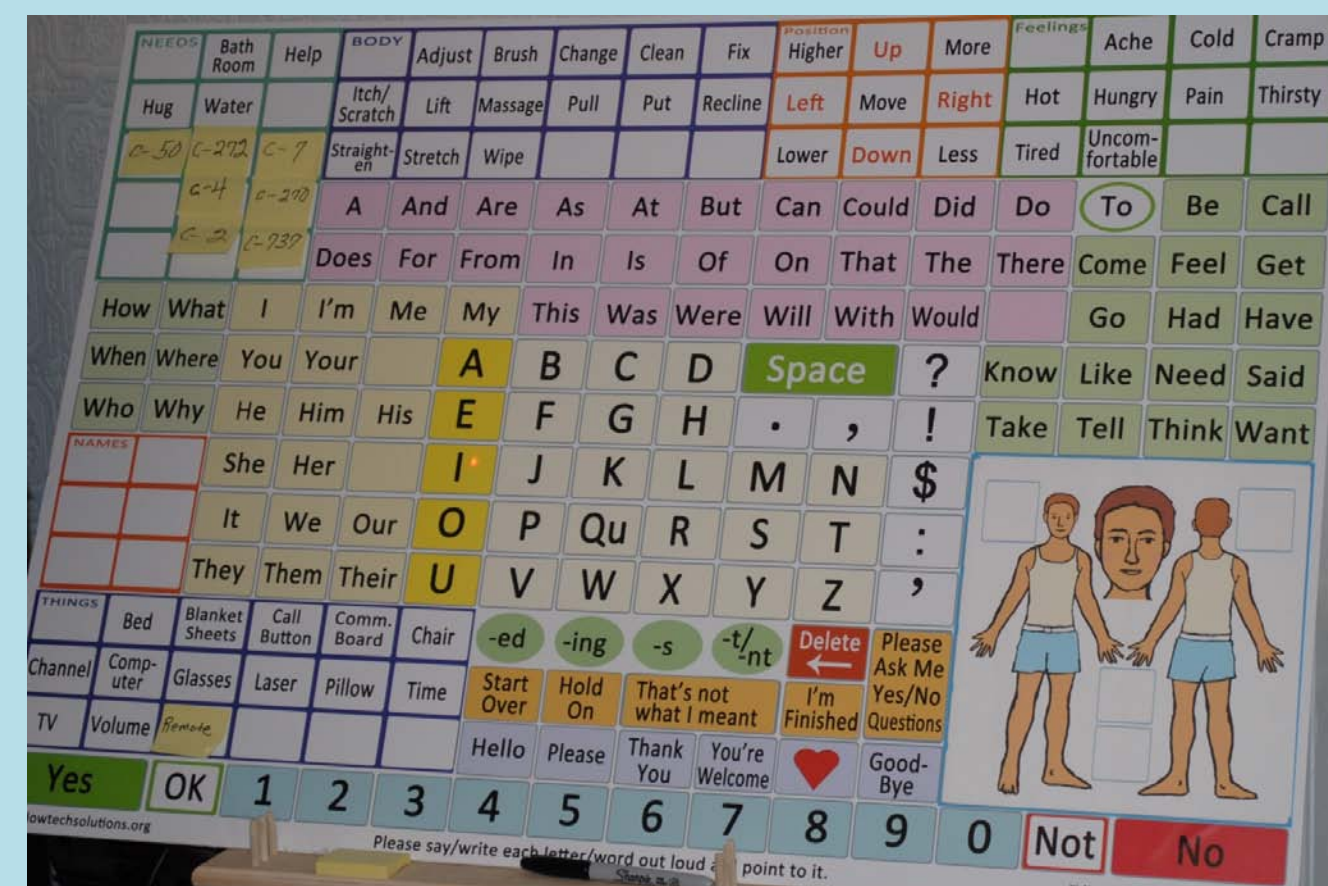
## BACKGROUND

### Statement of significance:

- Persons with ALS (Amyotrophic Lateral Sclerosis) experience months to years of communication problems
- Implementation of easy to use communication device allows person to “speak” and increases quality of life

## PURPOSE

- Explain an easy method for enhancing communication in a person with ALS who has lost the ability to speak
- Provide feedback from person who used the device



	A	B	C	D	E	F	G	H	I
	J	K	L	M	N	O	P	Q	R
	S	T	U	V	W	X	Y	Z	#
1	2	3	4	5	6	7	8	9	0
YES	NO	Bathroom	Hungry	Wipe mouth					
	Thirsty	Please	Thank you	I love you					
			fix laser	start over					

Simple communication board created in Excel.

Communication Board from LowTech Solutions

## MATERIALS AND METHODS

### Methods:

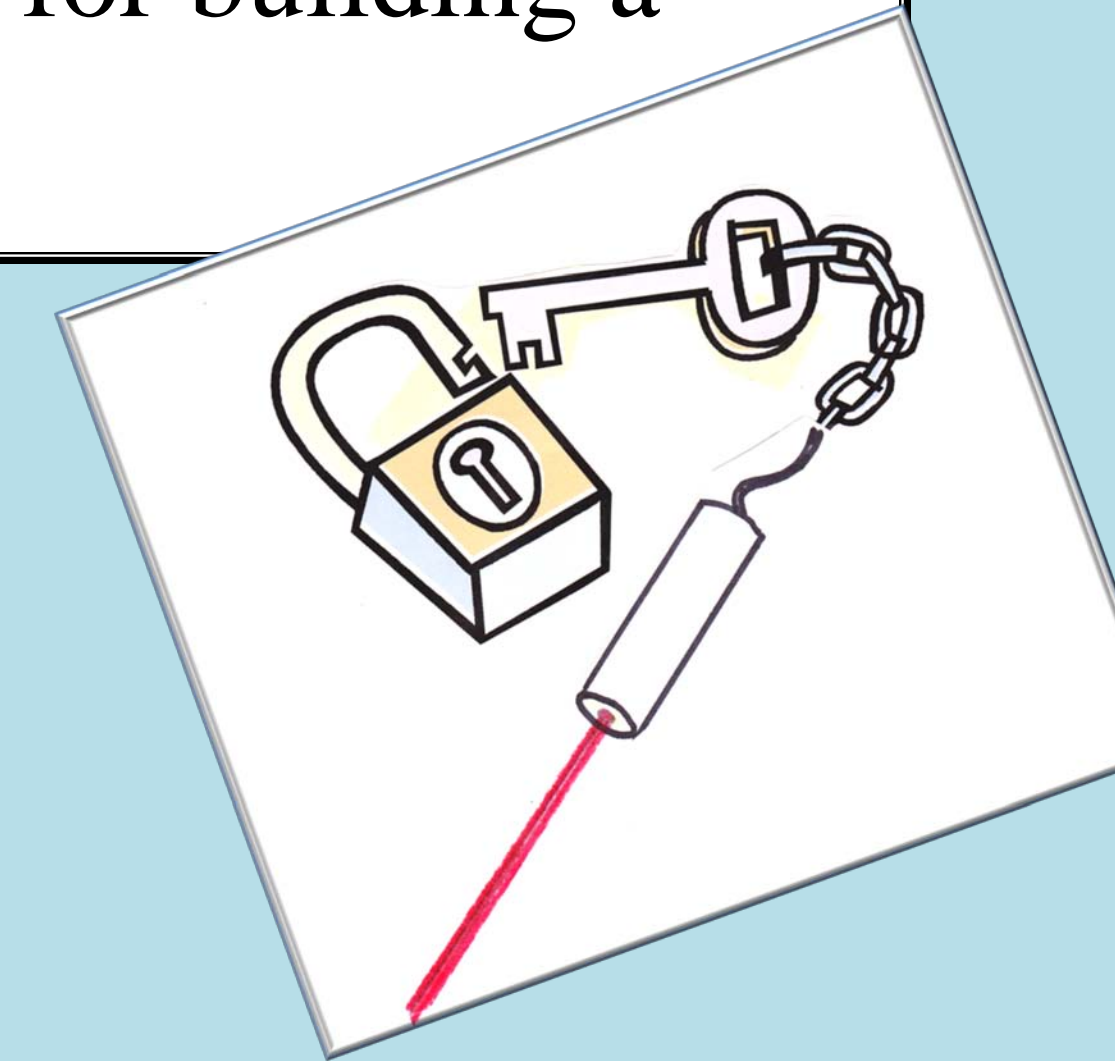
- Review of literature
- Web search
- ALS support groups and blogs

### Materials:

Class II laser module, battery pack, wire, electrical tape, rearview eyeglass bicycle mirror, shrink tubing, communication board, instructions for building a simple adapted laser pointer



Laser pointer mounted on glasses



**Locked In?  
A Laser may  
be the key!**



**Impact on Communication : Priceless**

## REACTION FROM MICHAEL

*“Before using the laser pointer, my family would spend so much time trying to understand me and I would get so angry! Now it’s like playing a game and they usually know what I am trying to say after just two letters.”*

## RESULTS

- Assists client in communicating
- Facilitate communication between patient, family, and IDG (Interdisciplinary team)
- Provides patient with a voice
- Decreased frustration among all
- Decreased “guessing”
- Increased autonomy: Patient controls conversation
- Low cost alternative to high tech devices

## CONCLUSIONS

**Ease of assembly:** 30 minutes  
**Inexpensive:** Material cost \$40.00  
**Quality of Life:** Drastically improved!

## REFERENCES

Cotts, M. (2007). Simple laser Pointer for Low-Tech Communication. Instructions for a Simple adapted Laser Pointer for a Low Tech Augmentation Communication. Retrieved from [http://neurology.ucsf.edu/brain/als/PDFs/Laser\\_Pointer\\_instructions.pdf](http://neurology.ucsf.edu/brain/als/PDFs/Laser_Pointer_instructions.pdf)