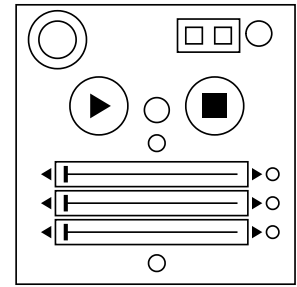# On the Subject of Transmitted Morse

There's too many modules with Morse code given through sight anyways...

This module has a speaker, four LED lights, a play button, a stop button, 3 sliders with arrow buttons to scroll with, buttons next to the sliders showing the sliders current position, and a reset button.

To solve this module the defuser move each slider to a position in a sequence, and press their position button before continuing the sequence. This process is done twice in total, over the course of two stages. The two LEDs near the top right of the module show which stage the module is on (first lit is stage 1, second lit is stage 2). If when inputting the sequence the defuser feels they messed up or lost where they were, they can press the reset button between the play and stop button to start inputs from the start of the sequence again. If the module has any inputs the reset button will be white, otherwise it will be black.

This sequence inputted is the characters of a message that is given in Morse by the speaker in sound. The message may be modified by the section "Getting the Transmitted Message".

If the defuser enters in the wrong slider position at any point in the sequence a strike will be recorded, and the module will stay at its current stage and NOT reset.

Getting the Transmitted Message

If the defuser presses the play button the speaker will emit the Morse message in sound. It will continue to output the message in a loop until the loop is broken by the stop button being pressed. To distinguish each character of the message, keep in mind the following:

- A long break of static signals the restart of the message (it will play again from the beginning)
- A short break of static signals a new character (one character ended, a new one will play)
- A long beep represents a long/dash in Morse code
- A short beep represents a short/dot in Morse code

A picture is given on the next page showing what each chain of longs/dashes and shorts/dots stand for. Once the Morse message is translated a message in English will be revealed.

Morse Code Table

Letter	Code		Letter	Code
A	● ▬		U	● ● ▬
B	▬ ● ● ●		V	● ● ● ▬
C	▬ ● ▬ ●		W	● ▬ ▬
D	▬ ● ●		X	▬ ● ● ▬
E	●		Y	▬ ● ▬ ▬
F	● ● ▬ ●		Z	▬ ▬ ● ●
G	▬ ▬ ●			
H	● ● ● ●			
I	● ●			
J	● ▬ ▬ ▬			
K	▬ ● ▬		1	● ▬ ▬ ▬ ▬
L	● ▬ ● ●		2	● ● ▬ ▬ ▬
M	▬ ▬		3	● ● ● ▬ ▬
N	▬ ●		4	● ● ● ● ▬
O	▬ ▬ ▬		5	● ● ● ● ●
P	● ▬ ▬ ●		6	▬ ● ● ● ●
Q	▬ ▬ ● ▬		7	▬ ▬ ● ● ●
R	● ▬ ●		8	▬ ▬ ▬ ● ●
S	● ● ●		9	▬ ▬ ▬ ▬ ●
T	▬		0	▬ ▬ ▬ ▬ ▬

Check for the translated message in the table below. If the message is in the table, use it. If the message is not in the table and starts with a vowel, then the message is "CODERED". Otherwise, the message is "UNLUCKY".

Possible Messages

BOMBS	SHORT	UNDERSTOOD	W1RES	SOS	MANUAL	STRIKED
WEREDEAD	GOTASOUV	EXPLOSION	EXPERT	RIP	LISTEN	DETONATE
ROGER	WELOSTBRO	AMIDEAF	KEYPAD	DEFUSER	NUCLEARWEAPONS	
KAPPA	DELTA	PI3	SMOKE	SENDHELP	LOST	SWAN
NOMNOM	BLUE	BOOM	CANCEL	DEFUSED	BROKEN	MEMORY
R6S8T	TRANSMISSION		UMWHAT	GREEN	EQUATIONSX	

If the LED above the sliders is either red or pink AND the LED below the sliders is either yellow or blue, then the message must be reversed (For example "THING" is now "GNIHT").

Inputting the Message

Now that the message has been decoded, it is time to input it into the sliders. To start be sure to note down the alphabetical positions of each character in the message. Now follow the rules below to determine whether the character should be inputted into slider 1, 2, or 3 (slider 1 is on top and 3 on bottom). Each character must be inputted in the order of the message from beginning to end by its corresponding alphabetical position on the slider using the arrows (If the character is a digit then just use the digit as the position). Once the last character is inputted the module will either move on to stage 2 repeating this whole process with a new transmitted message or solve dependent on what stage the module is on.

If the top LED is orange or white, use these rules for input:

- If the character is a letter between or equal to A-G, input it into slider 2
- If the character is a letter between or equal to H-M, input it into slider 3
- If the character is a letter between or equal to N-Z, input it into slider 1
- If the character is a digit, input it into slider 1

Otherwise, if the bottom LED is yellow or orange, use these rules for input:

- If the character is a letter between or equal to A-G, input it into slider 1
- If the character is a letter between or equal to H-M, input it into slider 2
- If the character is a letter between or equal to N-Z, input it into slider 3
- If the character is a digit, input it into slider 2

Otherwise, use these rules for input:

- If the character is a letter between or equal to A-G, input it into slider 3
- If the character is a letter between or equal to H-M, input it into slider 2
- If the character is a letter between or equal to N-Z, input it into slider 1
- If the character is a digit, input it into slider 3

Please note that if a character's position is above 20 the module's sliders can't input it, therefore any character under this circumstance should be inputted with its alphabetical position's least significant digit.