

## Moderne Didaktik für's Erlernen des Klartextes

### *Modern Techniques for Learning to Copy in your Head*

OE6RDD, AGCW 3835, HSC 1940, VHSC 423, Gerhard  
OE6FEG (M0FEU), HSC 1954, Matt



# Themen

## *Topics*

- **Didaktik CW-Schule Graz**
- *Teaching Methods Graz CW School*
  
- **Didaktik OE6RDD**
- *Learning Methods OE6RDD*
  
- **Didaktik OE6FEG**
- *Learning Methods OE6FEG*
  
- **Morserino-32**

**Klartext aus dem Gedächtnis hören ist die Krönung der  
Telegrafie**

*Coping CW in your head is the crowning glory of telegraphy*



- **Das Gehörlesen der Morsezeichen, das Verstehen ganzer Wörter und Sätze ohne Niederschrift, gilt als Ziel der Morsekunst**
- *Coping Morse in your head, understanding whole words and sentences without writing them down is the ultimate goal of learning Morse.*

➤ **Gehörlesen bedeutet Entspannung**

➤ *Coping Morse in your head means Relaxation*

# DL2LE

**„Wer den Klartext nicht beherrscht, der hat den Lernprozess der Telegrafie nicht abgeschlossen, sondern ihn unterbrochen oder gar für immer abgebrochen.....“**

**Dieter DL2LE**

*“He who cannot copy in his head has not completed the process of learning Morse, rather he has interrupted or forever broken off that process.....”*

*Dieter DL2LE*

# Warum ist das Gehörlesen so schwierig?

## *Why is coping Morse in your head so difficult?*

- **Schon wenn wir einen Satz nur buchstabiert zu hören bekommen, ist es schwer seinen Inhalt zu verstehen**
- *Even without Morse code, understanding texts in which the words are spelled out one letter at a time requires more concentration in itself.*
- **Die Morsezeichen müssen als Reflex erkannt werden, dann beginnt das Gehörlesen.**
- *The Morse characters must understood reflexively, only then is it possible to copy in your head.*

# Es gibt viele Wege

*There are many methods*

- **Jeder Weg bietet Vor- und Nachteile**
- *Each method had advantages and disadvantages*
  
- **Hauptsache ist: Eine rege Morseaktivität**
- *The main thing is: regular Morse activity*

# Vorübung

## *Preliminary Practice*

- **Wörter oder Sätze buchstabieren (Morse Fusion):**
- *Read words and sentences spelled out (Morse Fusion)*
  
- **A U T O**
- *C a r*



### *Session Text*

**September 1786. Früh drei Uhr stahl ich mich aus Karlsbad, weil man mich sonst nicht fortgelassen hätte.**

# Der Schlüssel für das Gehörlesen

## *The key to copying Morse in your head*

- **Große Wortpausen**  
*Larger pauses between words*
- **Silbenpausen**  
*Pauses between syllables*
- **Wortwiederholung**  
*Repeating words*
- **Sauberes Geben, kein QLF!!**  
*Clear sending, no QLF!!*

# **Didaktik CW-Schule Graz**

*Teaching methods at the Graz CW school*



# Abkürzungen aus dem Gedächtnis mitlesen und geben

*Sending and receiving abbreviations off the top of your head.*

<https://oe6.oevsv.at>

MP3



Just Learn Morse Code

File Edit View Action Source Tools Help

Characters 5 Speed 5 / 15 WPM Pitch 550 Volume

Contribute

### Output

Input: KM SK U R UR K

A	..	0	.....
B	....	1	.....
C	....	2	.....
D	...	3	.....
E	.	4	.....
F	....	5	.....
G	...	6	.....
H	....	7	.....
I	..	8	.....
J	....	9	.....
<b>K</b>	...-	.	.....
L	....	.	.....
<b>M</b>	...	/	.....
N	..-	?	.....
O	---	-	.....
P	....	=	.....
Q	....	SK	.....
<b>R</b>	...-		
<b>S</b>	...-		
T	-		
<b>U</b>	...-		
V	....		
W	...-		
X	....		
Y	....		
Z	....		

- **Abkürzungen mit 2 Buchstaben**
- *2 letter abbreviations*
  
- **Abkürzungen mit 3 Buchstaben usw.**
- *3 letter abbreviations*
  
- <http://www.oe6.oevsv.at> MP3
  
- **Morserino-32**

# Wörter aus dem Gedächtnis mitlesen und geben

## *Sending and receiving words off the top of your head*

- **Der Lehrer gibt im Unterricht, via Skype oder ICW ein Wort so oft, bis der Schüler das richtige Wort zurückgibt.**
- *During lessons, via Skype or ICW, sends a word repeatedly until the student sends the correct word back.*
- **Dann kommt das nächste Wort usw.**
- *Then comes the next word.*

# OE6RDD Didaktik

- **Viele QSO's mit einem vertrauten Funkpartner**
- *Many QSOs with a trusted partner*
  
- **DL1YGH Matt aus Bielefeld**

# DL1YGH Matt ging auf einen Anfänger ein

## *DL1YGH Matt's advice to a beginner*

- **Große Wortpausen**
- *Larger pauses between words*
  
- **Bei lange Wörter mit Silbenpausen**
- *Pauses between syllables in longer words*
  
- **Schlüsselwörter 2x geben**
- *Repeat key words twice*

## Mail Montag, 28. Mai 2018

- Hallo Gerhard.
- 
- Danke für das nette QSO gerade eben auf 7,008 MHz.
- 
- CW macht mir richtig Spaß. Ich lerne und übe seit etwa einem halben Jahr und es ist echt ein tolles Gefühl, wenn es rein vom Gehör klappt etwas zu verstehen aus Punkten und Strichen.
- 
- 73 aus Wien
- Armin
- OE1ABV



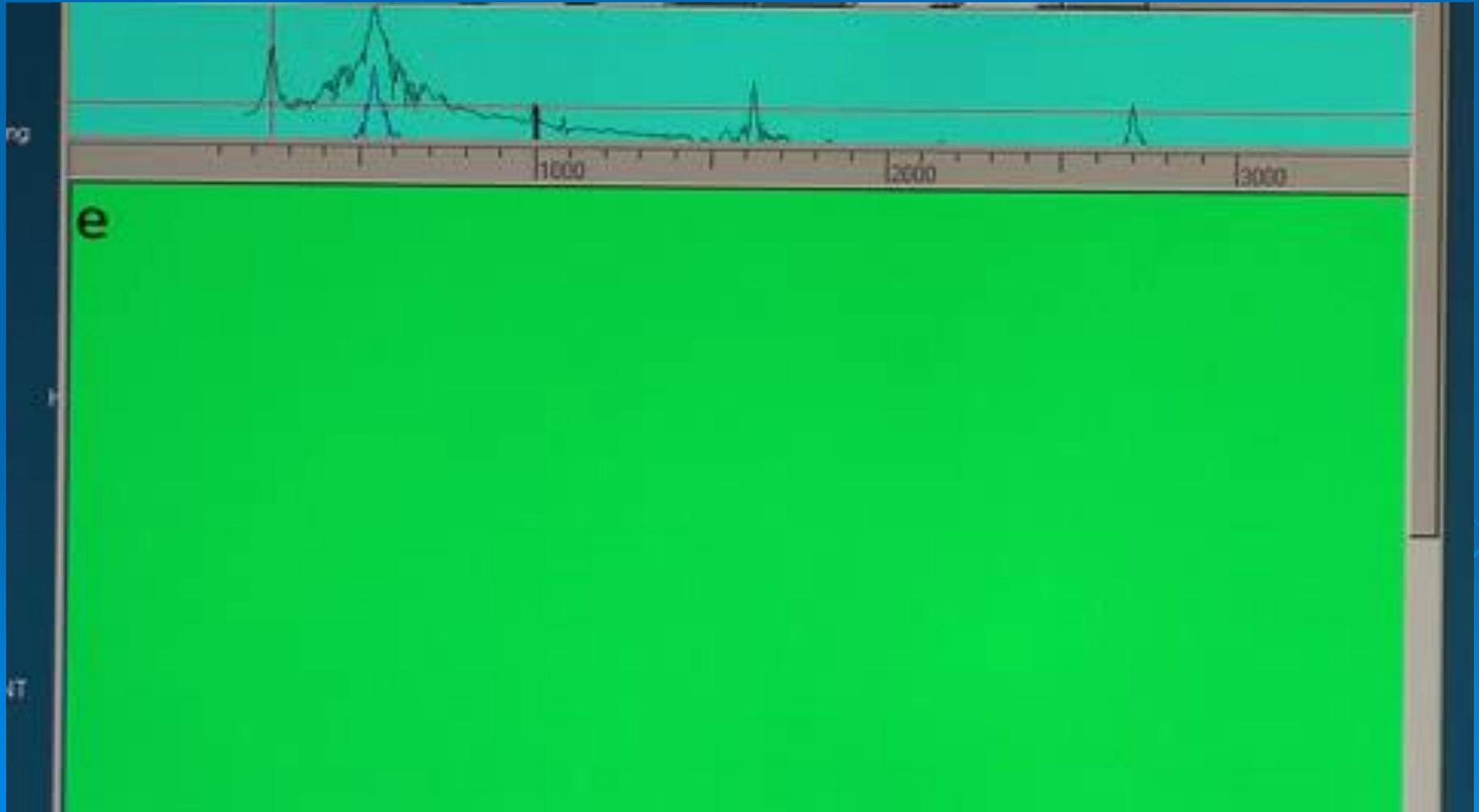
# Silben- und Wortpausen, Schlüsselwörter 2x

*Syllable and word pauses, key words repeated twice*



# Wortpausen, Schlüsselwörter 2x

*Word pauses, key words repeated twice*



**Moderne Technik erleichtert das Gehörlesen**  
*Modern technology can simplify copying in your head*



# Das Mitleseprogramm als Hilfe

## *Morse reader programs as an aid*

The screenshot shows the UA90V CwGet software interface. The title bar reads "UA90V CwGet Registered to OE6RDD". The menu bar includes "File", "Filters", "Zoom", "Setup", and "Help". The control panel contains buttons for "AutoThr", "GoToMax", "AutoGTM", a frequency input field set to "345", an "AFC" button, "Replay", "Save", a baud rate input field set to "30", a filter width input field set to "205", and a "Sp.Lock" button. The main display area is divided into three sections: a spectrum plot at the top showing a signal peak at 345 kHz, a large green text area in the middle displaying decoded Morse code, and a waveform plot at the bottom. The decoded text is as follows:

e b k de dld ks fer all info e s fb rpt dr b l e on - = rig hr i c mi ic 7700 es abt  
200 w out es ant ob9/ 5 beam nv wxhr cloudn nd 2 m ie m{ . . - - . }e AR bk  
tme te e te e e t t t t t t o e e e t r r t k s f i t e m e t o k s f b u r i 7 o e i - t n x u e t  
qeee o - 73 es m d t nuagn sn = 73 AR ua eee dlbe l e e t u e

The status bar at the bottom displays the following parameters: MF: 600 Hz, BF: 200, 538 Hz, Auto, 179 LPM, 35,9 WPM, On Top, FrB: 15.

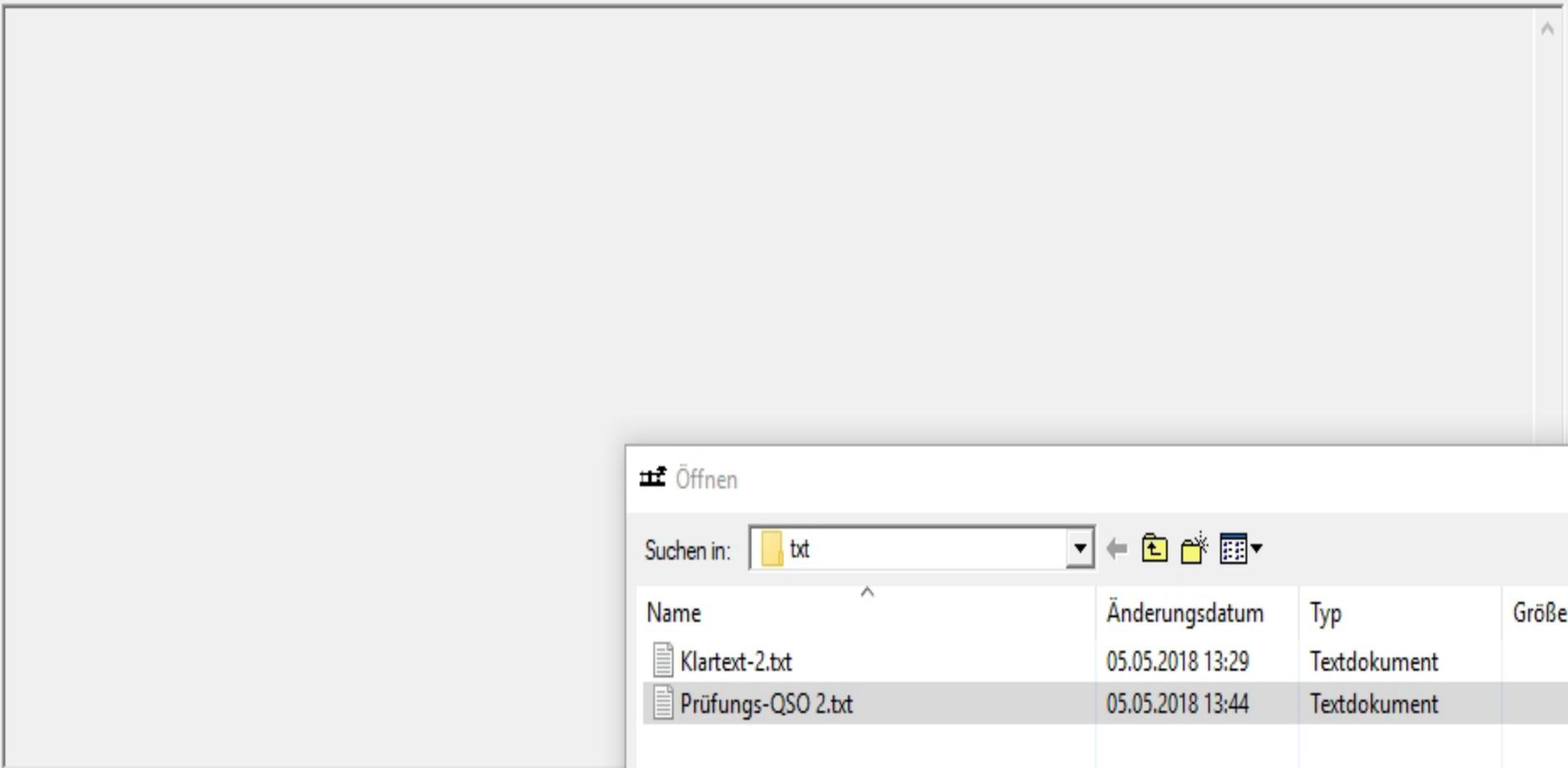
# Didaktik mit dem Mitleseprogramm

## *Learning methods with reader programs*

- **Nur auf den Bildschirm schauen und berieseln lassen ist falsch!!!**
- *Simply looking at the screen and playing along is wrong!!!*
  
- **Zur gleichen Zeit mit den Ohren und Augen mitlesen.  
Der PC ist immer eine kleine Spur hinterher.**
- *Try to read with your eyes and ears simultaneously.  
The PC is always a little way behind the radio*
  
- **Nur mit den Ohren mitlesen und danach den Rest vom Bildschirm holen.**
- *Try to read only with your ears and get the missing info from the screen.*
  
- **Entspannt zuhören!!!!**
- **Englisch**

▶ || ■ ● 🛑 Aa ✂ 📄 📂 Characters 5 / Speed 8 / 15 WPM Pitch 550 Volume 🗲 [Contribute](#)

# Output



# Input



🛑 Öffnen

Suchen in:  🏠 🗑️ 📅

Name	Änderungsdatum	Typ	Größe
📄 Klartext-2.txt	05.05.2018 13:29	Textdokument	1
📄 Prüfungs-QSO 2.txt	05.05.2018 13:44	Textdokument	1

# Jeden Tag mit dem Freund üben

## *Practice everyday with a friend*

- **Sked ausmachen**
- *Organise skeds*
  
- **Klartext-Telegrafie mit einem vertrauten Funkpartner**
- *Conversational telegraphy with a trusted partner*
  
- **Die Vertrautheit vermeidet große Hemmungen**
- *The mutual understanding avoids the usual inhibitions*

# Mit Standard QSO's beginnen

## *Start with standard QSOs*

- **Man muß nicht alles verstehen**
- *You dont have to understand everything*
  
- **Call** und **rst.**
- *Call and rst*
  
- **Name** und **QTH**, auch nachfragen
- *Check **name** and **QTH** as well*
  
- **QRZ.Com** verwenden
- *Use QRZ*
  
- **Standart QSO** haben fast immer einen gleichen Ablauf
- *Standard QSOs always have a similar stucture and contents*

# Standard-QSO 2

RST, Name und QTH

OE6RDD **Fettschrift** ist die rufende Station

- 1.) **QRL ? ?** (etwas warten)  
**CQ CQ CQ** **de** ..... (my call 2 x) **pse k**
- 2.) ..... **de** ..... (my call 2 x) **pse kn**
- 3.) ..... **de** ..... (my call) =  
**gm /ga / ge om /yl tu fer ur call =**  
**ur rst is 5...9 5...9 =**  
**my name is** ..... (2x)  
**my QTH is** ..... (2x) = **hw?**  
..... **de** ..... (my call) **kn**
- 4.) **rr** ..... **de** ..... (my call) =  
**gm /ga / ge om /yl** ..... **tu fer ur call =**  
**ur rst is 5...9 5...9 =**  
**my name is** ..... (2x)  
**my QTH is** ..... (2x) = **hw?**  
..... **de** ..... (my call) **kn**
- 5.) **rr** ..... **de** ..... (my call) =  
**ok om /yl** ..... =  
**nw QRU tu fer QSO hpe cuagn (pse QSL via Buro)**  
**gb om /yl** ..... **73 es 55 =**  
..... **de** ..... **sk e e**
- 6.) **rr** ..... **de** ..... (my call) =  
**ok om /yl** ..... =  
**nw QRU tu fer QSO hpe cuagn (pse QSL via Buro)**  
**gb om /yl** ..... **73 es 55 =**  
..... **de** ..... **sk e e**
- 7.) **tu e e**
- 8.) **e e**

Standard - QSO auswendig lernen  
(Prüfung)

Learn the basic QSO off by heart  
(examination)

# OE6FEG Didaktik

## *OE6FEG learning methods*

- **Training mit dem Computer oder Smartphone**
- *Training with a computer or smartphone*
  
- **Gute Lernprogramme bieten die Möglichkeit der Texteingabe**
- *Good practice programs allow the use of ones own texts*
  
- **Man kann alltägliche Texte wie Nachrichten, Wetterbericht, Mails, usw verwenden**
- *One can use everyday texts like news reports, weather forecasts and emails.*

# Morse Trainer



## Morse Trainer for Ham Radio

Wolphi LLC Communication

★★★★★ 264

PEGI 3

Add to wishlist

€3,32 Buy



Learn or improve Morse code with Morse Trainer. Now with Farnsworth speed and Koch method.

If you are a ham radio (amateur radio) operator or just want to learn morse code. With a lot of settings it is very comfortable to adjust Morse Trainer to your current level.

The following settings are available:

- Frequency (200 - 2200Hz)
- Waveform (sine / triangle)
- Fading (to reduce click at the end of a dot or dash)
- Speed (2Wpm - 52Wpm)
- Farnsworth speed
- Spacing (spacing between dots or dashes)
- Dot-Dash Ratio (length ratio of dashes compared to dots)
- Letter Spacing (Space between letters)
- Word Spacing (Space between words)

Five different learning modes are available in Morse Trainer

- Random groups of X mode: Morse Trainer will play groups of X randomly selected letter, numbers or special characters. X can be an amount between 1-9. Those characters can be individually selected. If you want to learn just "s", "i" and "e" just select the 3 letters and Morse Trainer will create groups of X with those 3 letters.

The characters can also be chosen from 20 lessons of the Koch method.

## Modus „Eigener Text“

- **Es werden Umlaute gegeben**
- *Can send the special Morse characters for the umlaut letters*

Ä	·-·-·
Ö	-·-·-·
Ü	·-·-·-·



- **Aus „ß“ werden „ss“**
- *Except for ß, which is sent as 'ss'*



# Modus „E-Book“

- **Es gibt keine Umlaute**
- *Cannot send the umlaut Morse characters*
  
- **Texte müssen bearbeitet werden**
- *Texts require more preparation*

Morse Trainer



Speed **15 Wpm**  
speed in words per minute (wpm)



Spacing **1 dots**  
spacing between dots



Dot-Dash Ratio **3 dots**  
length ratio between dots and dashes



Letter Spacing **3 dots**  
space between each letter

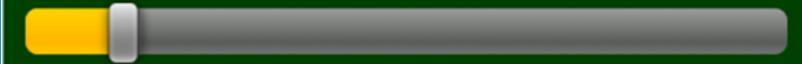


Word Spacing **35 dots**  
space between each word



Screen settings

Font Size **5**





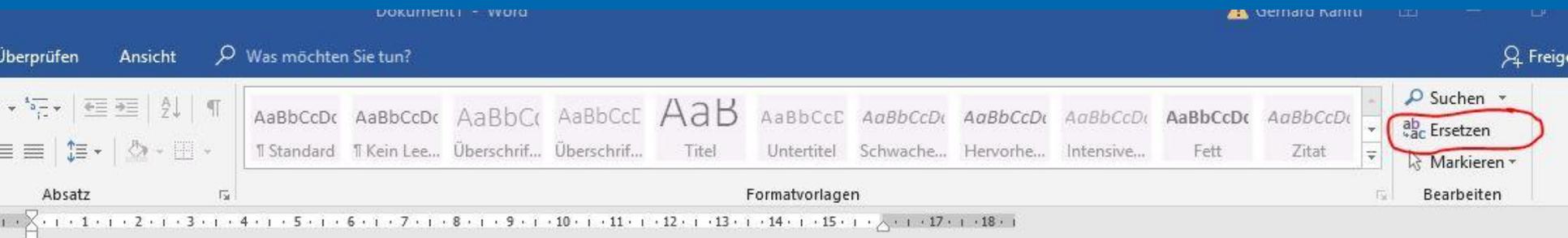
# Texte bearbeiten

## Englisch

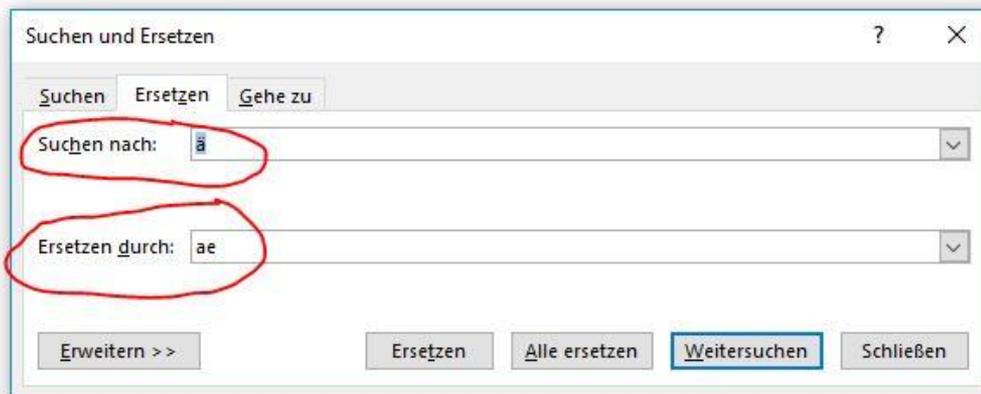
- **Umlaute umwandeln**
- *Translate the umlauts*
  
- **Just Learn Morse Code und Morserino-32 wandeln die Umlaute selber um**
- *Just Learn Morse and Morserino-32 change translate the umlauts automatically*
  
- **Textverdoppler**
- *Word multiplier*
  
- **Morserino-32 ist die Textverdopplung einstellbar**
- *Word multiplication is adjustable with the Morserino-32*

# Umlaute mit Word umwandeln

## Translating the umlauts in MS Word



Maeuse, Österreich, Übung



# Textverdoppler Word Multiplier



## Software

### Just Learn Morse Code

- [Download-Link](#)
- [Programmeinstellungen](#)

### Textverdoppler

- [Download-Link](#)
- [Programmeinstellungen](#)

### CW-Get

- [Download-Link](#)

### WebSDR

- [websdr.org](#)

### VE7CC (Cluster und Skimmer)

- [Installations-Anleitung](#)
- [Allgemeine Einstellungen](#)
- [Alarmeinrichtungen](#)
- [Country\\_\(Filter\)](#)

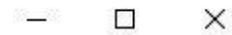
### Internet CW mit Mumble

- [Download Link](#)
- [Anleitung](#)
- [Artikel von Dieter DL2LE](#)

## CW-Schule Graz

- Themenübersicht
  - [Aktivitäten](#)
  - [Unterlagen](#)
  - [Präsentationen](#)
  - [Literatur](#)

Textverdoppler



VVV \KA 21MTX DE F6DMW GM JACK ES MNI TKS FER RPRT FROM  
BRISTOL MY NAME ES FRANCO FRANCO MY QTH IS MONTPELLIER  
MONTPELLIER 50 KM EAST OF MARSEILLE RIG HR TH540 WID 50W  
PWR ANT 5 BAND VERT OK? ^AR 21MTX DE F6DMW ^KN  
2M1RVO DE G3KEB R ALL FB HARRY MNI TKS FOR RPRT ES WX  
CHECK UR RST 459 459 SOME QRN QTH HR BARNSTAPLE  
BARNSTAPLE MY NAME IS RONNIE RONNIE WX FOGGY ES FROSTY  
FB ON QSO OM CU AGN SOON ^AR 2M1RVO DE G3KEB ^VA

VVV VVV \KA \KA 21MTX 21MTX DE DE F6DMW F6DMW GM GM JACK JACK ES ES MNI MNI TKS TKS FER FER  
RPRT RPRT FROM FROM BRISTOL BRISTOL MY MY NAME NAME ES ES FRANCO FRANCO FRANCO FRANCO MY  
MY QTH QTH IS IS MONTPELLIER MONTPELLIER MONTPELLIER MONTPELLIER 50 50 KM KM EAST EAST OF OF  
MARSEILLE MARSEILLE RIG RIG HR HR TH540 TH540 WID WID 50W 50W PWR PWR ANT ANT 5 5 BAND BAND  
VERT VERT OK? OK? ^AR ^AR 21MTX 21MTX DE DE F6DMW F6DMW ^KN ^KN 2M1RVO 2M1RVO DE DE G3KEB  
G3KEB R R ALL ALL FB FB HARRY HARRY MNI MNI TKS TKS FOR FOR RPRT RPRT ES ES WX WX CHECK CHECK  
UR UR RST RST 459 459 459 459 SOME SOME QRN QRN QTH QTH HR HR BARNSTAPLE BARNSTAPLE  
BARNSTAPLE BARNSTAPLE MY MY NAME NAME IS IS RONNIE RONNIE RONNIE RONNIE WX WX FOGGY FOGGY  
ES ES FROSTY FROSTY FB FB ON ON QSO QSO OM OM CU CU AGN AGN SOON SOON ^AR ^AR 2M1RVO 2M1RVO  
DE DE G3KEB G3KEB ^VA ^VA



# Textverdopplung

## Word multiplier

Just Learn Morse Code

File Edit View Action Source Tools Help

Characters 5 Speed 8 / 15 WPM Pitch 550 Volume  [Contribute](#)

### Output

### Input

Öffnen

Suchen in:

Name	Änderungsdatum	Typ	Größe
 Klartext-2.txt	05.05.2018 13:29	Textdokument	1
 Prüfungs-QSO 2.txt	05.05.2018 13:44	Textdokument	1

# **Didaktik für Text hören**

## ***Learning methods for listening to texts***

- **Text hören und gleichzeitig mitlesen**
- *Listen to the text and read it at the same time*
  
- **Text vor dem Hören durchlesen**
- *Read the text through once before listening*
  
- **Nur mehr den halben Text vor dem Hören durchlesen**
- *Read only half the text through before listening*
  
- **Text vor dem Hören nicht mehr durchlesen und Textverdoppler verwenden**
- *Listen to the text without reading it at all and use the word multiplier program*
  
- **Text nur mehr hören**
- *Listen to normal texts*

# Morse Fusion

- **Das ist ein „Web–Based Programm**
- *Is a web-based program.*
  
- **Mit Morse Fusion kann man Gehörlesen üben**
- *With Morse Fusion you can practice copying Morse in you head*
  
- **Man kann damit Bücher lesen**
- *You can read books with it.*
  
- **Die Wörter werden buchstabiert oder gemorst.**
- *Words can be either spelled out verbally or sent as Morse code*
  
- **Kostet im Monat 10 Euro**
- *Costs €10 per month.*

**Select a novel to configure\***

- A Tale of Two Cities --- Charles Dickens
- The Radio Boys' First Wireless --- Allen Chapman
- The Secret Adversary --- Agatha Christie
- The Telegraph Boy --- Horatio Alger
- The Three Musketeers --- Alexandre Dumas
- The Time Machine --- H. G. Wells
- The War of the Worlds --- H. G. Wells
- Three Men in a Boat --- Jerome K. Jerome
- Tom Swift and his Wireless Message --- Victor Appleton
- (not a book) Letters Seldom Heard --- Read Instructions first!
- (not a book) Call Signs and Email --- Read Instructions first!
- GENTLE START: Great Inventors --- H. E. Macomber
- Lilith --- George MacDonald
- A Princess of Mars --- E. R. Burroughs
- (not a book) Random 3-letter words
- (not a book) Random 4-letter words
- The Bible --- King James Version
- The Bible --- Douay-Rheims Version
- The Adventures of Huckleberry Finn --- Mark Twain
- The Importance of Being Earnest --- Oscar Wilde
- BETA:Italienische Reise-Teil 1, von Johann W. Goethe**

Checked characters will be sent in code 0 ▾ % of the time

Unchecked characters always spoken in English

### Select characters to be sent in code

- |                            |                            |                            |                            |                            |                            |
|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <input type="checkbox"/> A | <input type="checkbox"/> B | <input type="checkbox"/> C | <input type="checkbox"/> D | <input type="checkbox"/> E | <input type="checkbox"/> F |
| <input type="checkbox"/> G | <input type="checkbox"/> H | <input type="checkbox"/> I | <input type="checkbox"/> J | <input type="checkbox"/> K | <input type="checkbox"/> L |
| <input type="checkbox"/> M | <input type="checkbox"/> N | <input type="checkbox"/> O | <input type="checkbox"/> P | <input type="checkbox"/> Q | <input type="checkbox"/> R |
| <input type="checkbox"/> S | <input type="checkbox"/> T | <input type="checkbox"/> U | <input type="checkbox"/> V | <input type="checkbox"/> W | <input type="checkbox"/> X |
| <input type="checkbox"/> Y | <input type="checkbox"/> Z | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 |
| <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | <input type="checkbox"/> 8 | <input type="checkbox"/> 9 |
| <input type="checkbox"/> , | <input type="checkbox"/> . | <input type="checkbox"/> ? | <input type="checkbox"/> / | <input type="checkbox"/> @ |                            |

Checked characters will be sent in code  % of the time

Unchecked characters always spoken in English

### Voice

Male  Female

### Sending speed (words per minute)

15  20  25  30

### Spacing between words

Normal  Wide (2x normal)  Extra wide (4x normal)

### Session duration (minutes)

1  5  10  15

Build Session

➤ **2 Wochen nur auf SPRECHEN einstellen**

➤ *For the first 2 weeks just listen to books spelled out verbally*



### Session Text

**September 1786. Früh drei Uhr stahl ich mich aus Karlsbad, weil man mich sonst nicht fortgelassen hätte.**

## Select a novel to configure (see note)

BETA:Italienische Reise-Teil 1, von Johann W. Goethe (BOOKMARK) ▼

Start at beginning  Continue from bookmark

## Select characters to be sent in code

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  0  1  2  3

4  5  6  7  8  9

,  .  ?  /  @

Checked characters will be sent in code  % of the time

Unchecked characters always spoken in English



### Session Text

**Die obern Wolken streifig und wollig, die untern schwer. Mir schienen das gute Anzeichen. Ich hoffte, nach einem so schlimmen Sommer einen guten Herbst zu genießen.**

# Morse Fusion



., o-. 1s- -- .- y, .-rrivi-.g

The screenshot shows a web browser window with the following details:

- Address Bar:** `morsefusion.com/session`
- Navigation:** Back, Forward, Refresh, Home icons.
- Bookmarks:** Apps, Bookmarks, Favoriten, Google, SOTA Mappi, Skimmer 2, Bing Maps, DX-2, dx-info, Land, Meter-Feet, QTH Locator, Weitere Lesezeichen.
- Page Header:** MorseFusion (left), Howdy, OE6FEG (right).
- Main Content:**

*Session Text*

., on 1st May, arriving at Vienna early next morning; should have arrived at 6:46, but train was an hour late.

**Fragen?**  
**Questions?**



OE1WKL Willi

## MetaMorserino

a multi-functional Morse Code device (keyer, trainer, decoder)

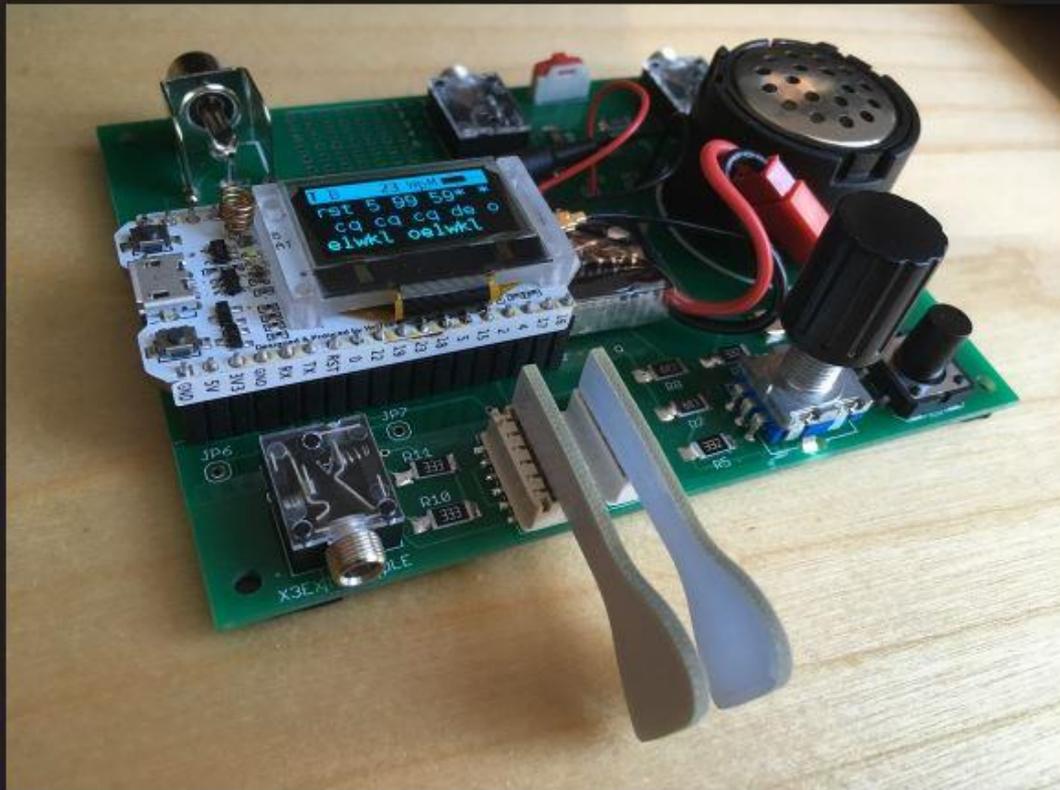


# Morserino-32

<http://morserino.info>

Learning and practicing Morse code with a multi-funktional morserino device

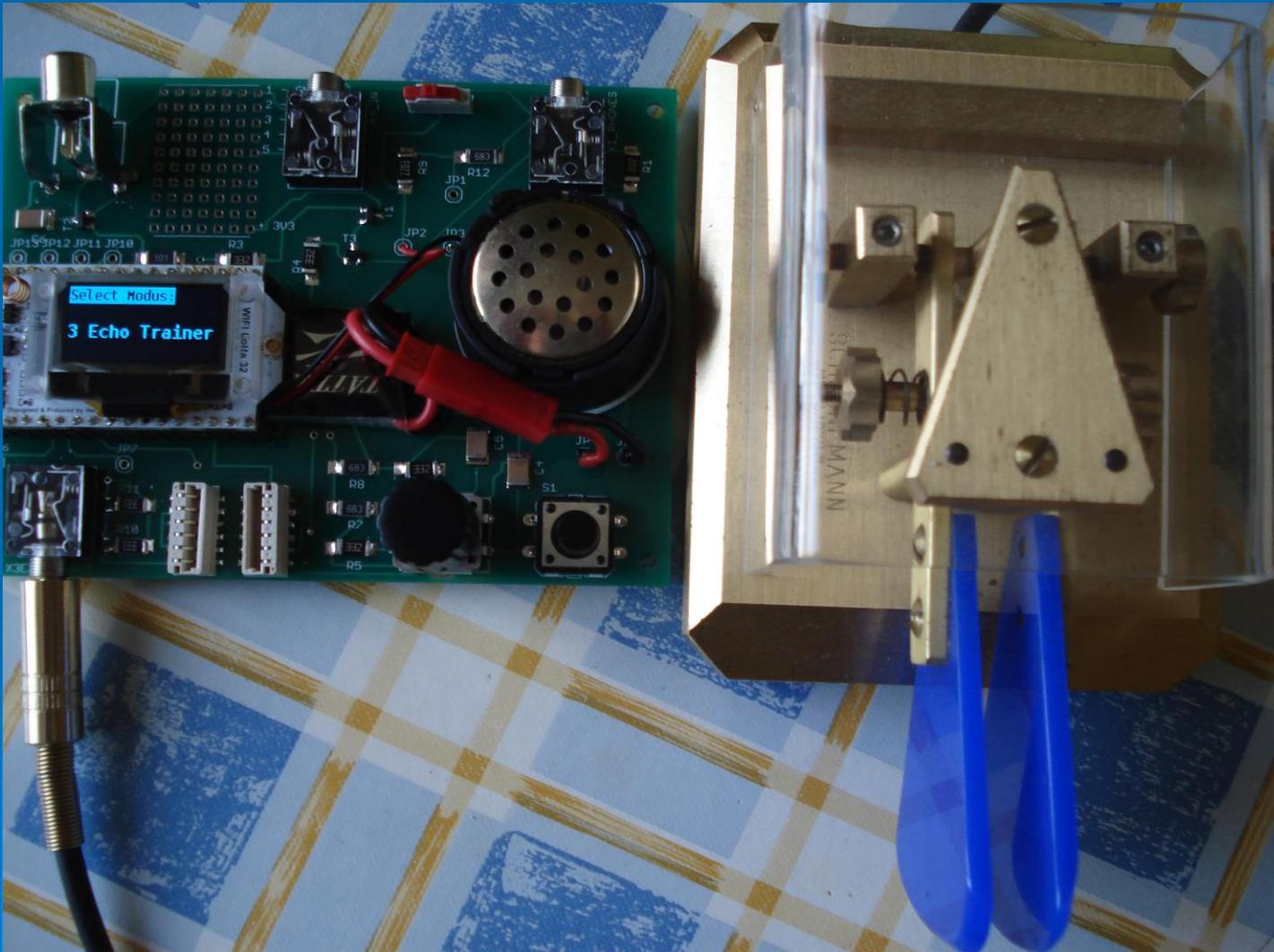
Morserino-32



- **Morserino-32 ist nach dem MetaMorserino das neueste Mitglied der Morserino-Familie. Er basiert auf einem ESP32 Mikrocontroller (inklusive OLED Display, und Funk via WLAN und LoRa) und ist ein äußerst leistungsfähiges Morseübungsgerät.**
- *Morserino-32 is the next generation morserino. Based on an ESP32 microcontroller (which includes an OLED display as well as WiFi and LoRa wireless capabilities, this will be an extremely powerful Morse code training device.*
- **Morserino-32 wird als Bausatz verfügbar sein, auch für Anfänger geeignet, da alle SMD Bauteile schon auf der Platine sein werden, und nur die übrigen 10 Bauteile aufgelötet werden müssen.**
- *This will be available as a kit - easy to assemble as all SMD components will be on the PCB already, so you only have to solder the 10 other components onto the board by yourself.*

# Morseriono-32

- CW Keyer
- CW Trainer
- **Echo Trainer**



## Features:

The features currently implemented are as follows:

### . Hardware

- ESP32 Microcontroller w/ WiFi, Bluetooth & LoRa
- OLED Display
  - 1 status line
  - 3 line text screen with 15 line buffer (you can scroll back)
- User interface through one Rotary Encoder and one Push Button switch
- Connections for:
  - Transceiver
  - Audio in (for Morse decoder)
  - Headphone output
  - Capacitive touch paddles (which are included)
  - External Paddle or Straight Key
- Power supply:
  - 600 mAh LiPo battery
  - USB Power for charging (Micro USB Connector)
  - Deep sleep function (including automatic time out)
  - Battery switch to disconnect battery completely

[www.morserino.info](http://www.morserino.info)

## • CW Keyer

- Speed variable with encoder (5-50 wpm)
- Built-in touch paddles or external paddles
- Polarity of paddle can be changed (dots on left or right paddle)
- Iambic A, B and Ultimatic mode
- Iambic B parameters (timing) configurable, independently for dots and dashes
- Pitch control
- output volume control
- Optional ACS (Automatic Character Spacing)

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- CW Trainer (Code generator)

- Speed variable with encoder (5-50 wpm)
- Generates random character groups, call signs, common CW abbreviations incl. Q-Groups, common English words
- Select which characters to be output (Koch method, or combination of alpha, numerals, interpunction, pro signs)
- Define length of words to be output
- Increase inter-character space (like Farnsworth method)
- Increase inter-word space
- Optional: output each word twice

# Alle Parameter sind einstellbar

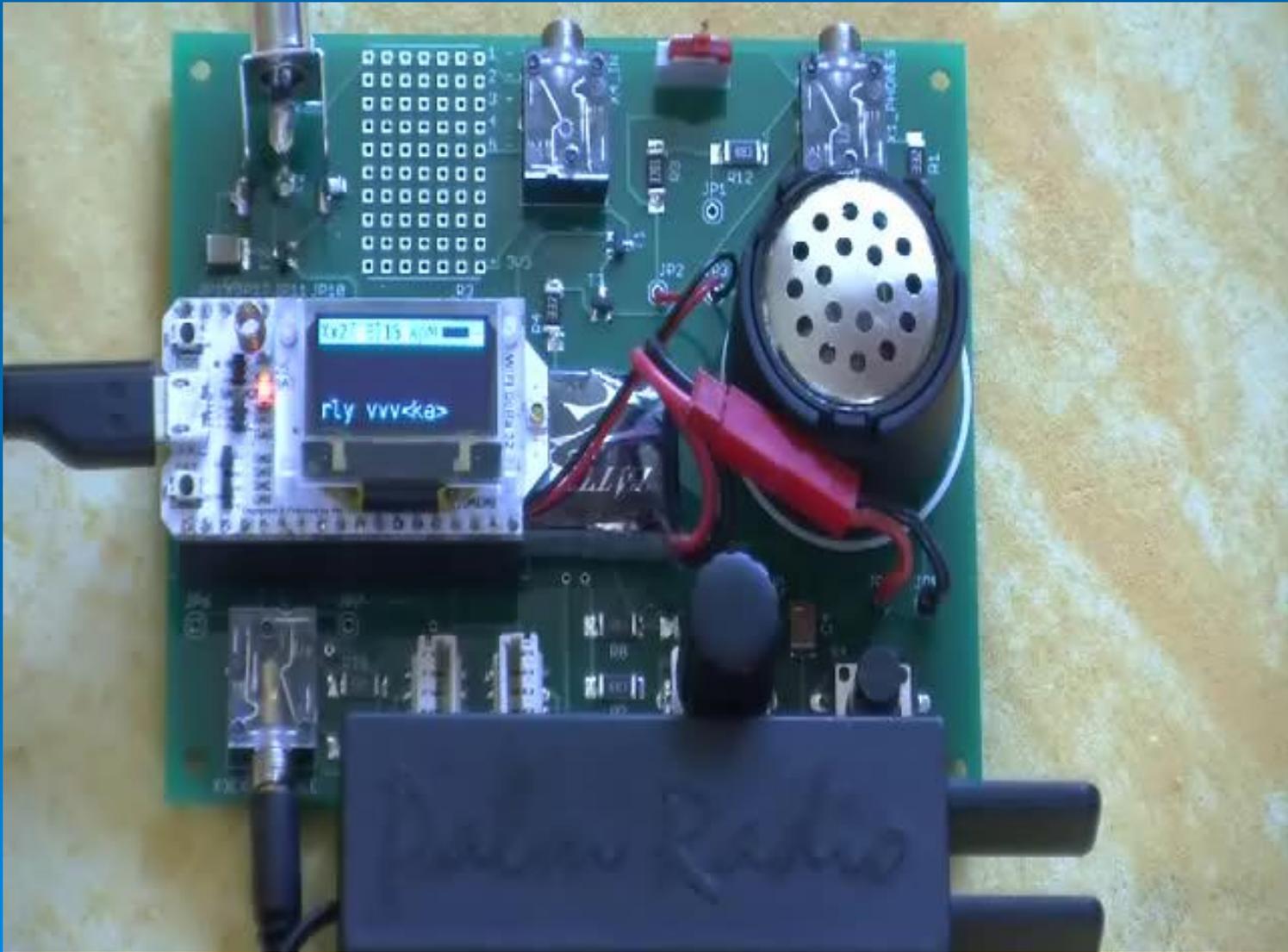
*All the parameters are adjustable*

- **Wortpausen**
  - *Word pauses*
- **Buchstabenpausen**
  - *Letter spacing*
- **Wortlänge**
  - *Word length*
- **Rufzeichenlänge**
  - *Callsign length*
- **USW**
  - *Englisch*

# CW Trainig

- **Englische Wörter (Textverdopplung einstellbar)**
- *English words (adjustable word multiplication)*
  
- **Buchstaben nach Lektion**
- *Letters according to level*
  
- **Rufzeichen**
- *Callsigns*
  
- **Eigenen Text laden (Umlaute werden umgewandelt, Textverdopplung einstellbar)**
- *Own texts can be loaded (umlauts are translated, adjustable word multiplication)*

**Englische Wörter mit Textverdopplung**  
*English words with the word multiplier*



# CW Echo Trainer ist ideal für Gehörlesene

<http://morserino.info>

- CW Echo Trainer (Challenge / Response)

- Morserino-32 prompts you with a word in CW, and you have to respond by repeating it with the paddle
- Large variety of words, as in the CW Trainer
- Ideal for learning to read Morse code in your head!

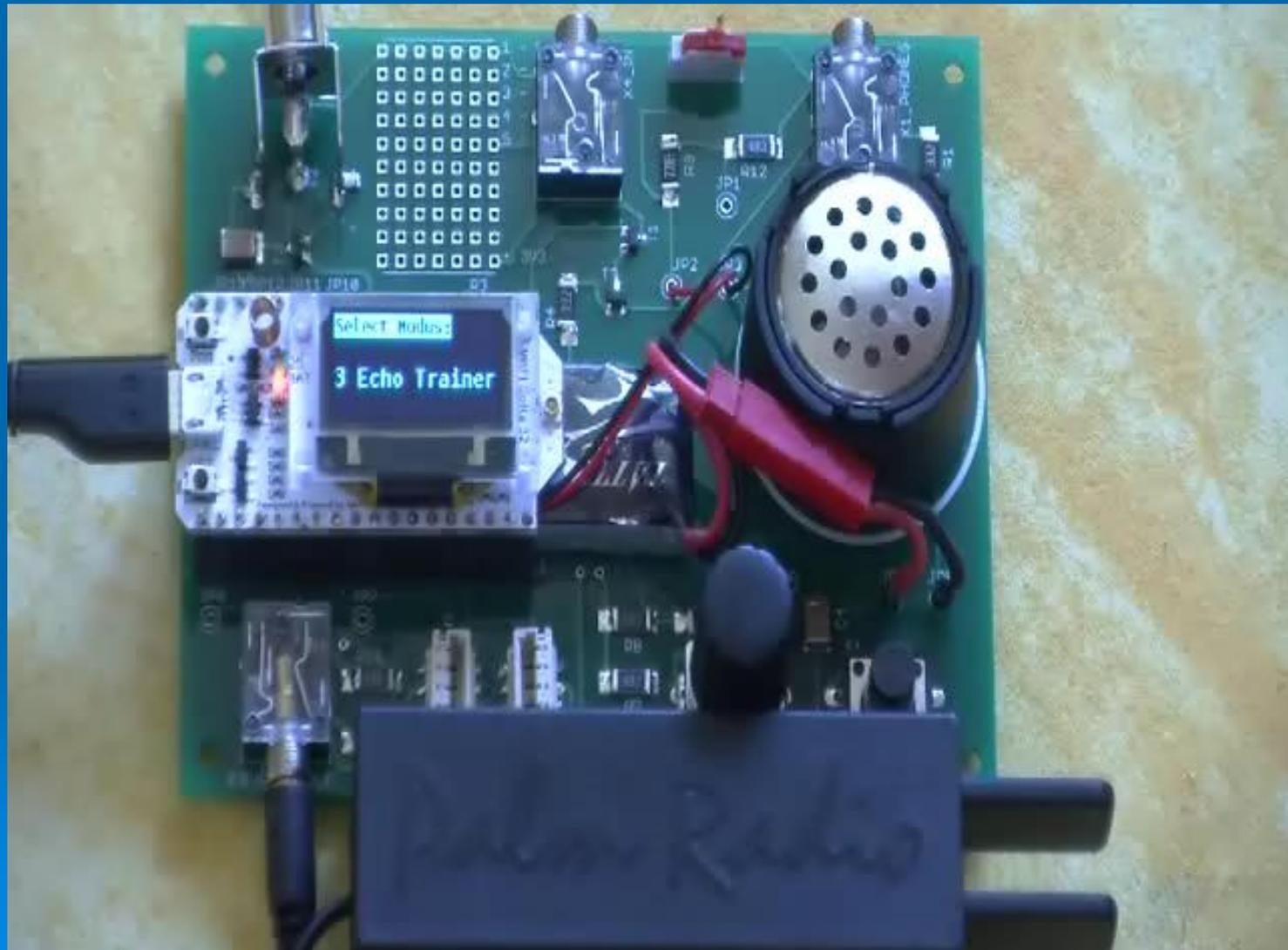
# Echo Trainer

Frage – Antwort  
*Question - Answer*

- **Englische Wörter**
- *English words*
  
- **Buchstaben nach Lektion**
- *Letters according to level*
  
- **Rufzeichen**
- *Callsigns*
  
- **Abkürzungen nach Lektion**
- *Abbreviations according to level*

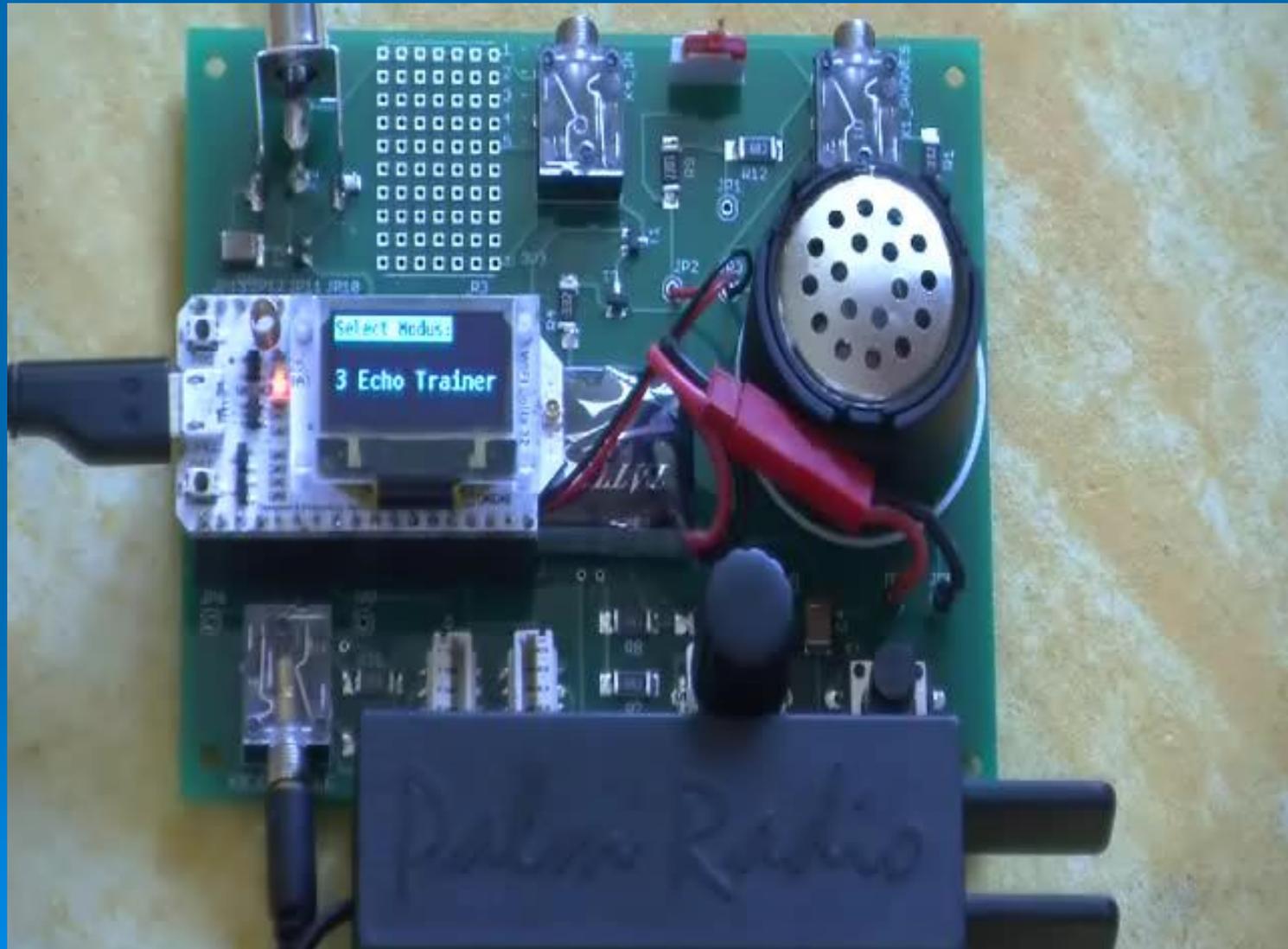
# Buchstaben nach Lektion

*Letters according to level*

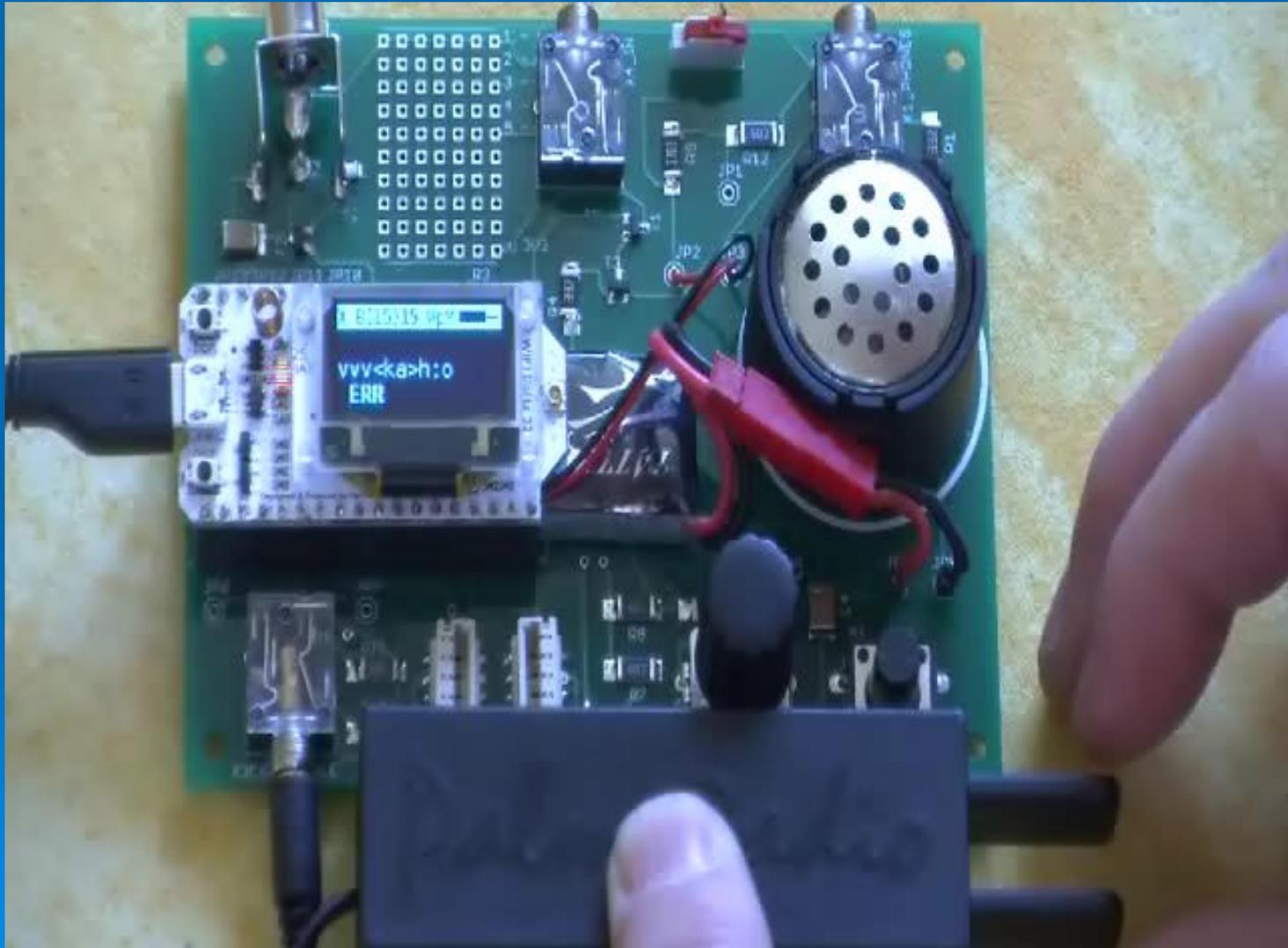


# Abkürzungen nach Lektion

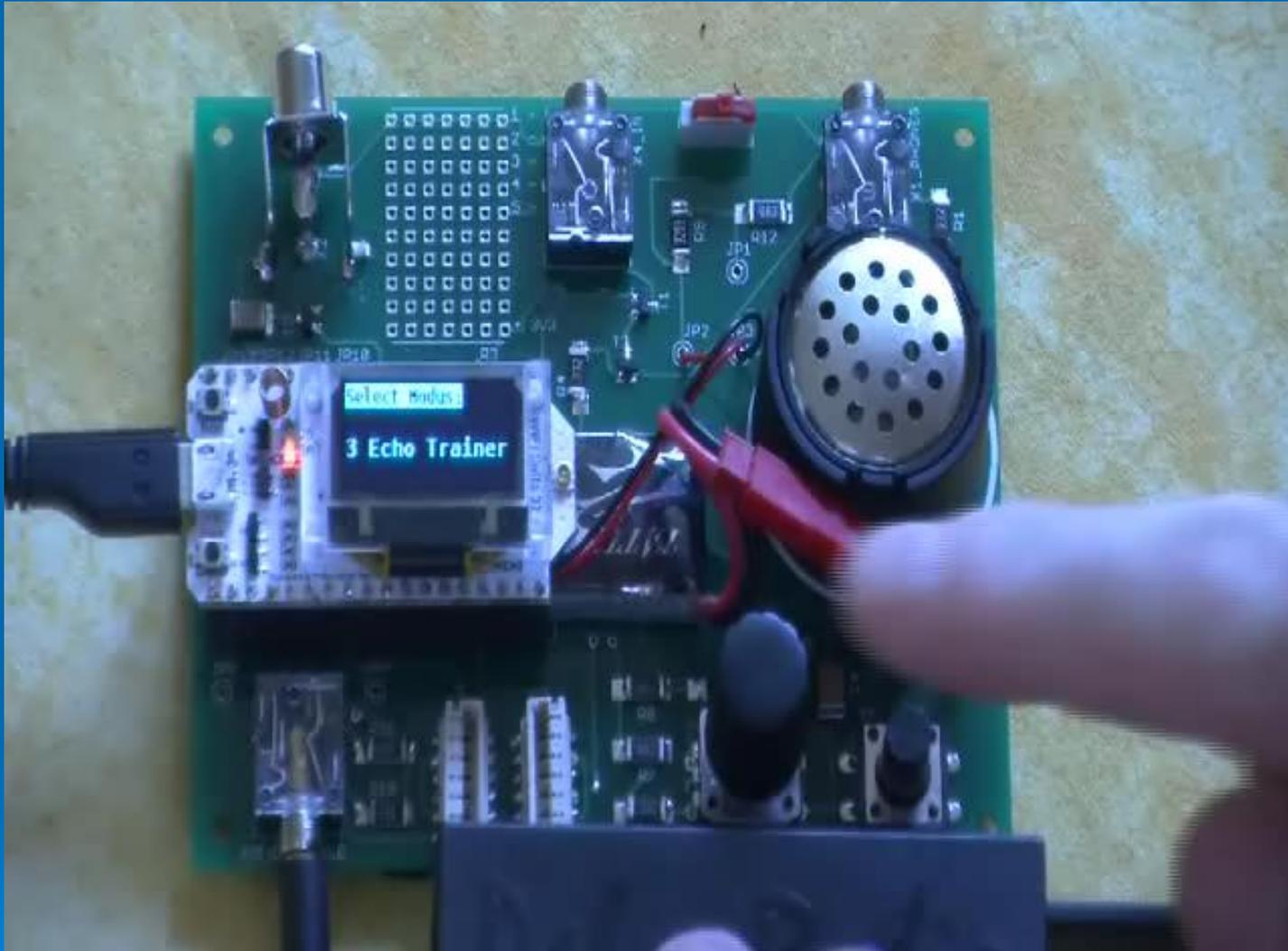
*Abbreviations according to level*



# Rufzeichen *Callsigns*

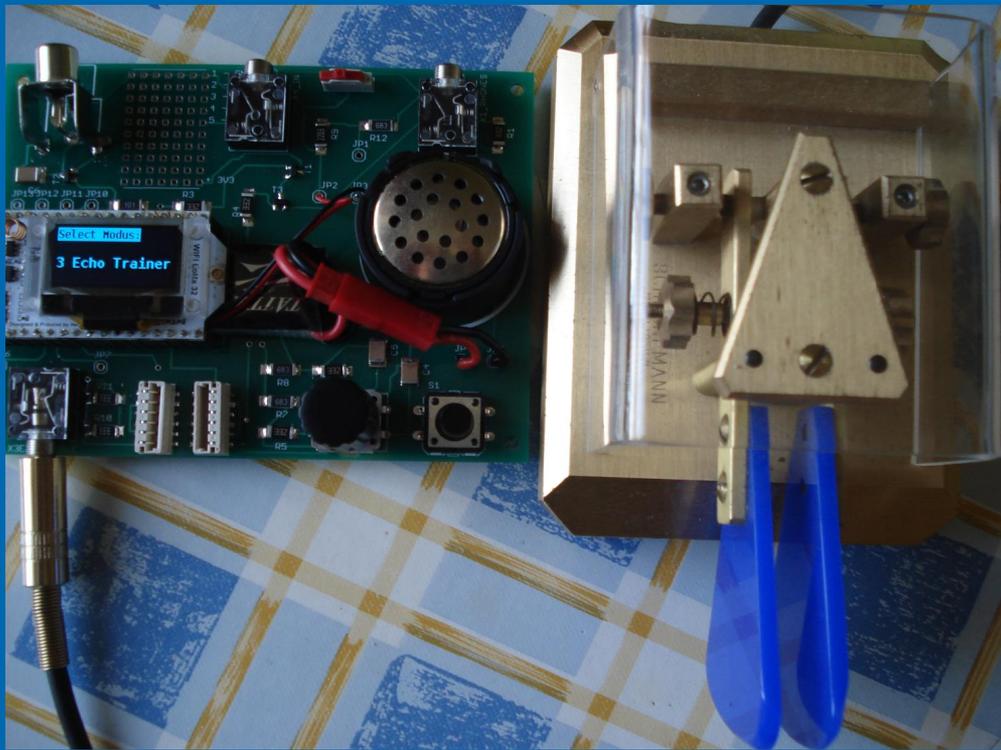


# 25 WPM HSC



➤ 40 WPM VHSC





**LoRa**<sup>TM</sup>



[www.morserino.info](http://www.morserino.info)

- CW Decoder (from straight key or from audio input)
  - Check and improve the quality of your straight key fist by using the decoder

### Currently Work in Progress:

- CW Transceiver
  - Using LoRa (Long Range WiFi) in the 432 MHz ISM Band!
  - Great for learning how to conduct QSOs in CW
  - Ideal for group learning
- CW Player
  - Upload texts via WiFi and play them in Morse Code
- More features being planned!

## Interested?

Sign up for free to our morserino mailing list to get updated about availability and pricing!

*(We use MailChimp as our Mail distribution provider. Your data is safe, we will not make it available to any other parties!)*

### Subscribe to our mailing list

\* indicates required

Email Address \*

First Name

Last Name

Callsign

Email Format

- html
- text

Subscribe

- Interessenten können die Mailingliste subskribieren, indem sie auf die Website „[www.morserino.info](http://www.morserino.info)“ gehen und dort das Formular ausfüllen. Sie werden dann rechtzeitig über Entwicklungsstand, Verfügbarkeit und Preis informiert werden.

# Morsetelegrafie ist eine Kunst

OE6RDD  
MMag. Gerhard Ranftl

OE6FEG (M0FEU)  
Matthew Pullan

**ÖVSV** Österreichischer Versuchssenderverband

Landesverband OE6 Steiermark

ORTSSTELLEN, CLUBABENDE ▾ OUTDOOR AKTIVITÄTEN ▾ VEREIN ▾ HOME 🔍

**Fieldday Dobl**

**Ausbildung und Kurs**

**CW-Schule**

**Clubabende**

**Aktuelle Nachrichten**

**Termine / Veranstaltungen**

55 Jahre AMRS-Ortsstelle Fliegerhorst  
Zeltweg: Jubiläums-Rundspruch am 6. April 2018

CW-Vortrag in Friedrichshafen  
2. Juni 2018 12:00  
Auf der HAM-Radio in Friedrichshafen präsentieren Gerhard, OE6RDD

# Fragen?

**WX2F**

Lew M. Morris  
1234 Taft Avenue  
North Merrick, NY 11566  
USA  
Loc:fn31 ITU:8 CQ:5 Nassau County  
ex. WA2VFA  
IC 746 Pro 100 w IC 781 150 w FT-1000D  
Linear Ten-Tec 425 1500 watts PEP  
Mosley Pro-67a @ 78 feet /40m Bi Square

To: M6BYN This confirms our 2-way SSB QSO  
Date: May 20, 2012 Time: 01:13 UTC  
Band: 20m UR Sigs: 59

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