

# *ArduiBox Open*

## *construction manual*

Rev.	Date	Description
A	2015-11-30	First release (translated from German document)

## *Tools:*

*agregulated soldering iron  
(25..40W) with small tip*



*a wet sponge to clean the  
tip*



*thin solder wire*



Side cutting pliers



Needle nose pliers



Medium cross slot screwdriver



*Parts Basic Version:*



4x  
2pole terminal block



2x  
3pole terminal block



1x  
6pole male header



2x  
8pole male header



1x  
10pole male header



1x  
6pole female header



2x  
8pole female header



1x  
10pole female header



1x  
Diode 1N5819



2x  
self-tapping screws

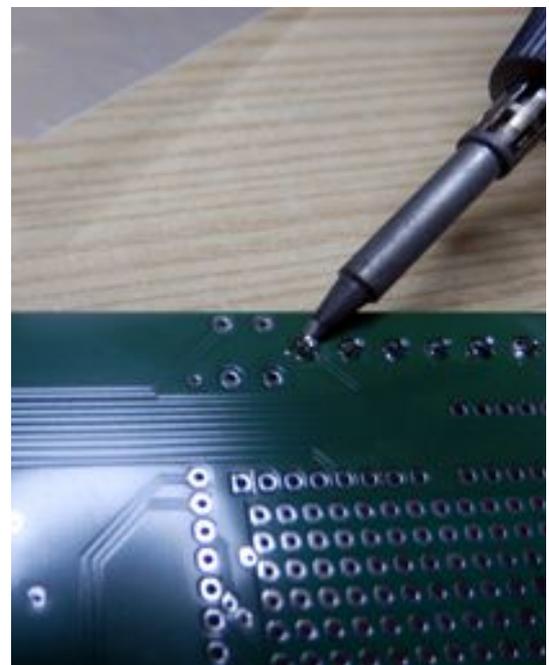
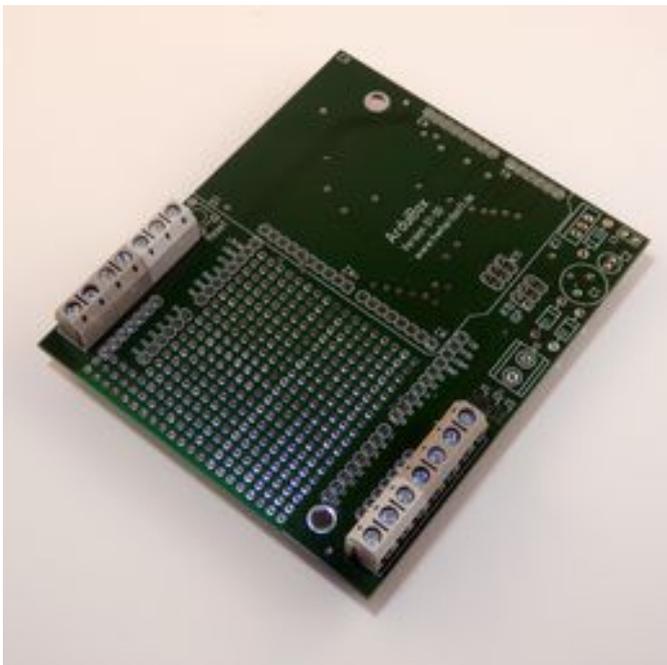
## 1.) *Prepare the terminal blocks*

*Find the terminal blocks, they're grey and come in 3-pin and 2-pin shapes. We'll need to slide two 2-pin and one 3-pin blocks together:*



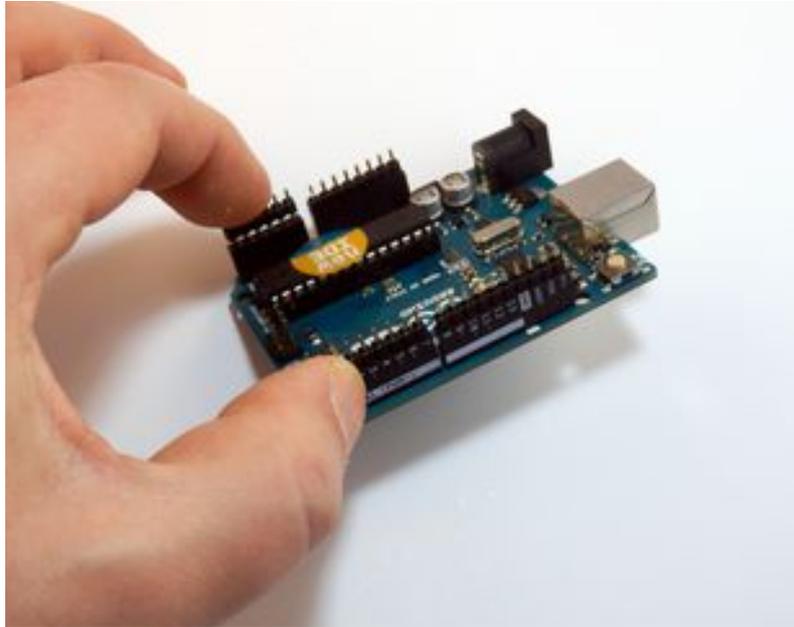
## 2.) *Place and solder terminal blocks*

*We've to put the blocks into the proto plate. Make sure you place them so that the open ends are facing out as shown:*

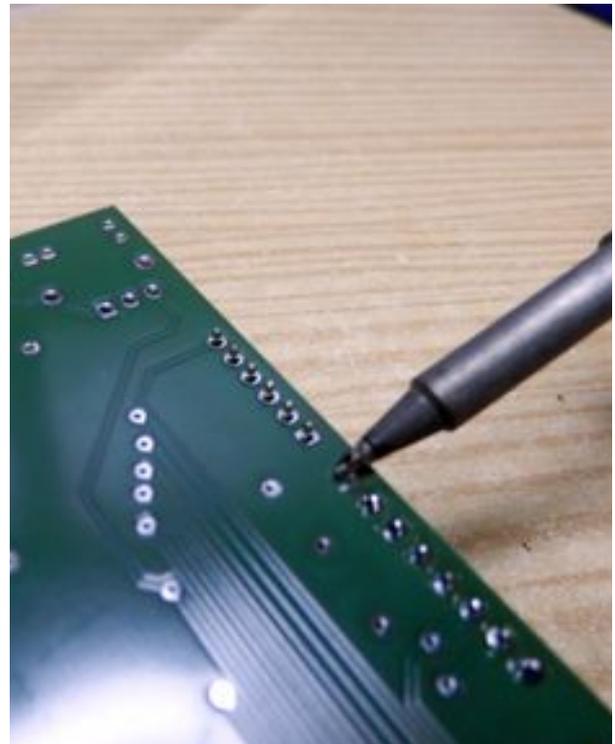


### 3.) *Prepare the male headers for Arduino*

*Find the 4 male headers and plug them into the female headers of the Arduino:*

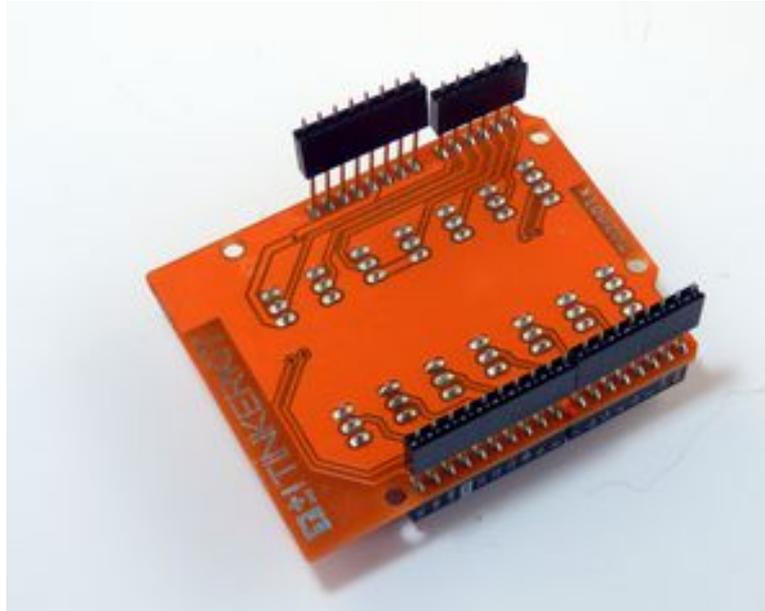


### 4.) *Mount and solder the Arduino*



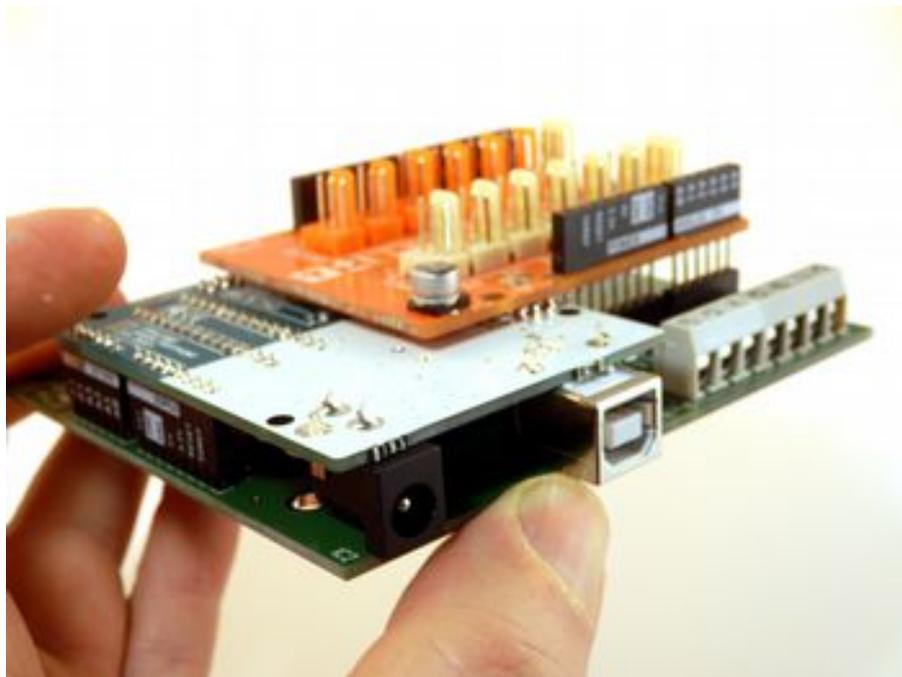
## 5.) *Prepare the Shield (optional)*

**Perform this step only if you really want to use a Shield!** Find the 4 female headers and plug them into the male headers of the optional Arduino shield.



## 6.) *Place and solder the shield (optional)*

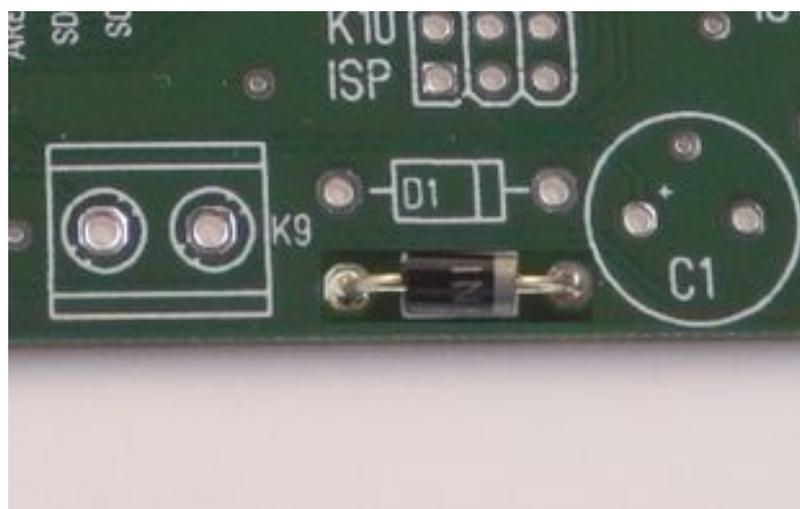
**Perform this step only if you really want to use a Shield!**



7.) *Remove the Arduino and the optional Shield*



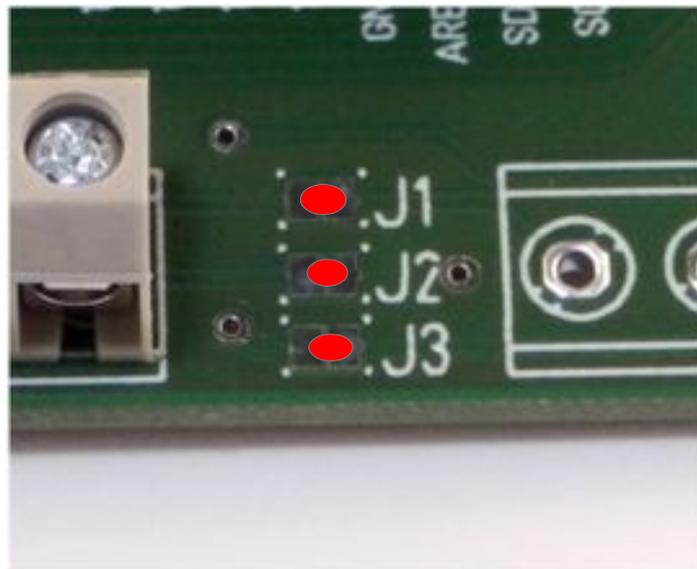
8.) *Place and solder Diode D2 (1N5819)*



## 9.) *Link the power inputs to the terminal*

***Perform this step only if you really don't want to use the additional voltage regulator of the standard kit. If you want to use the power socket of the Arduino this step is also unnecessary.***

*Bridge all three jumpers J1 to J3 with solder:*

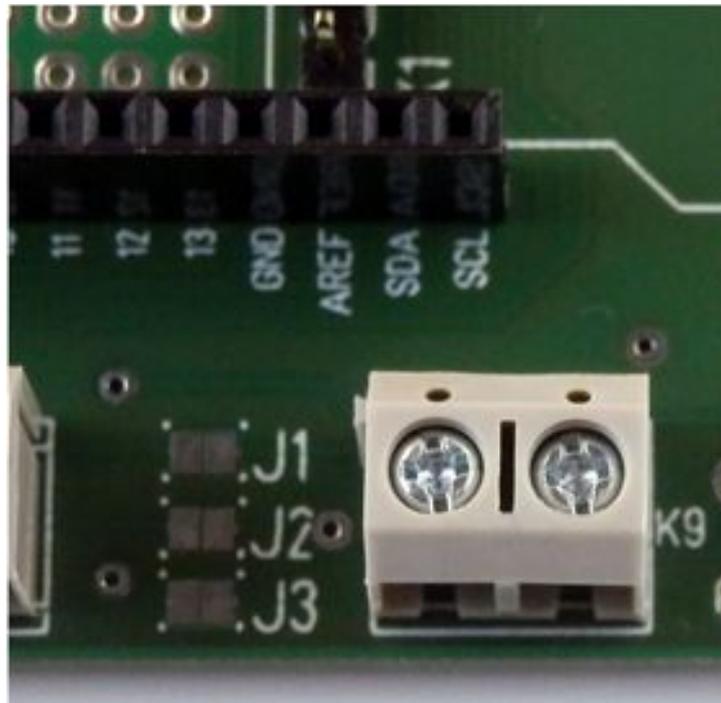


***Perform the next steps only if you have the standard kit (includes the parts of the voltage regulator). Otherwise continue with step 16.***

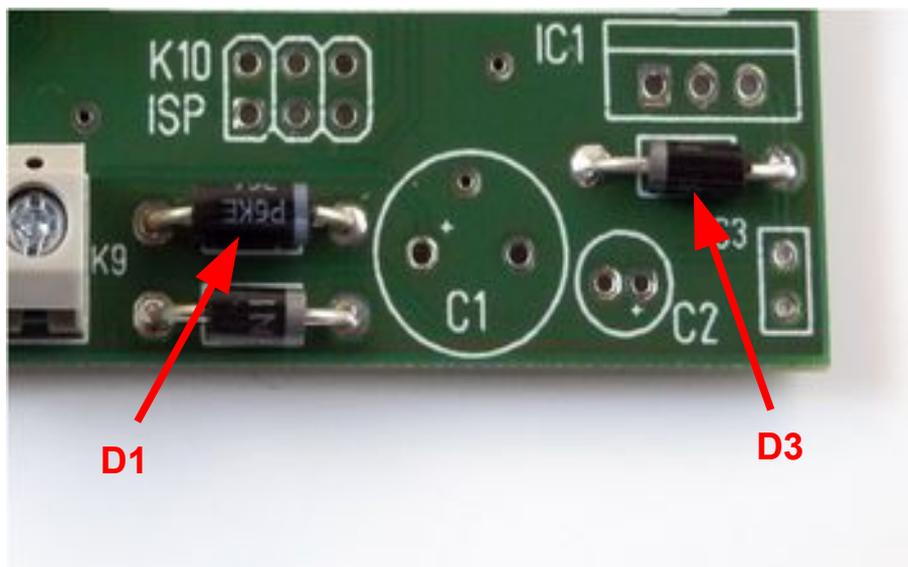
*Additional parts of Standard Version:*

 <p>1x 2pole terminal block (K9)</p>	 <p>1x Diode 1N5819 (D3)</p>	 <p>1x overvoltage limiting diode P6KE33CA (D1)</p>
 <p>1x capacitor 100nF (C3)</p>	 <p>1x electrolytic capacitor 100uF/63V (C1)</p>	 <p>1x electrolytic capacitor 10uF/35V (C2)</p>
 <p>2x voltage regulator 12V (IC1)</p>		

10.) Assemble terminal block K9



11.) Assemble Diode D1 and D3



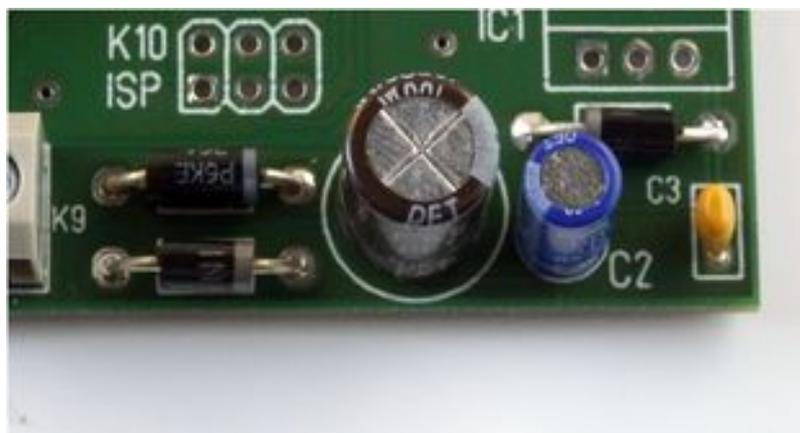
12.) Assemble electrolytic capacitor C1



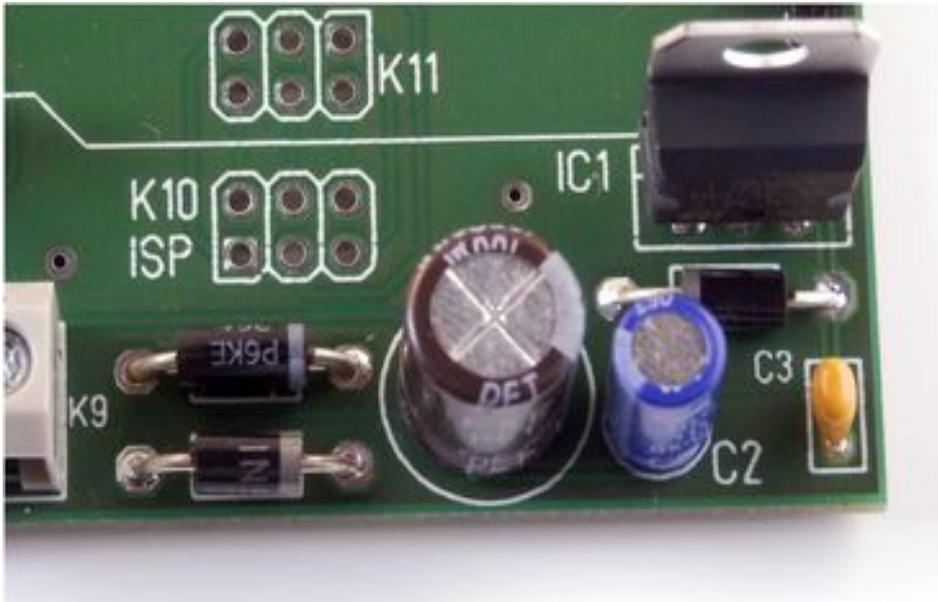
13.) Assemble electrolytic capacitor C2



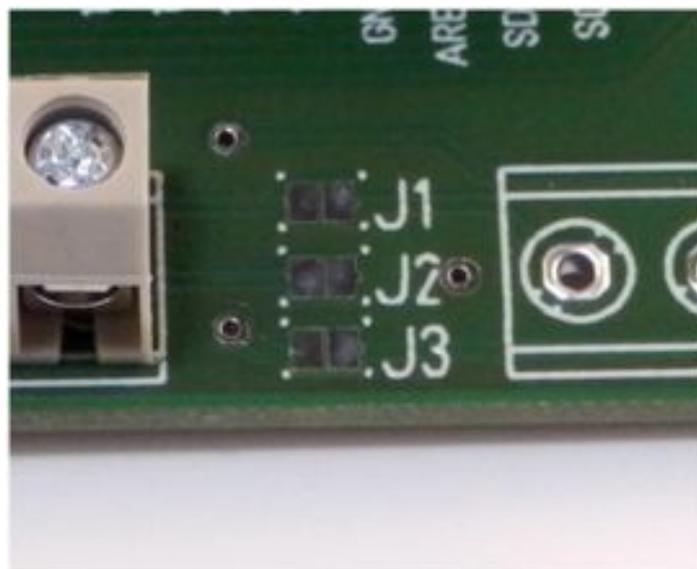
14.) Assemble capacitor C3



### 15.) Assemble voltage regulator IC1



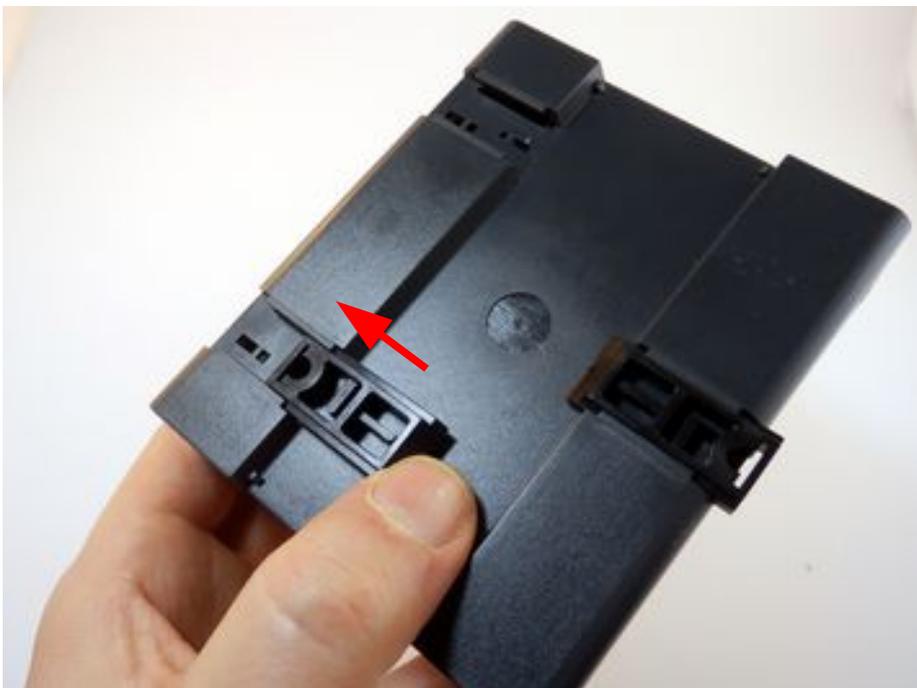
**Note: Please take care that the jumpers J1 to J3 are not be bridged:**



16.) Mount the pcb into the bottom shell

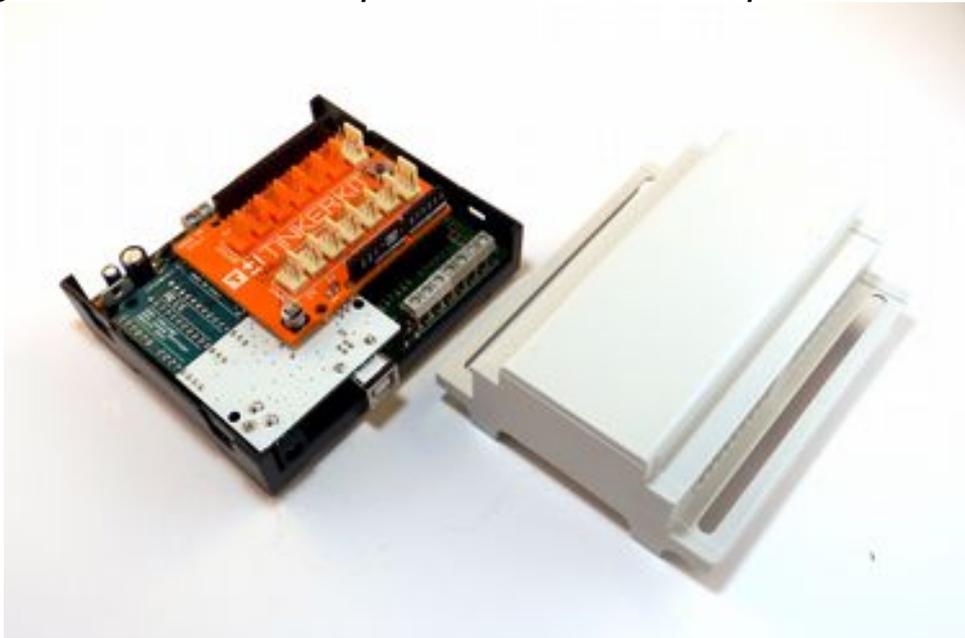


17.) Mount the 3 holders for the din rail



**Please take care to mount the holder from the inner channel to the outside!**

*18.) Plug the Arduino and optional Shield in the pcb!*



*19.) Mount the top shell!*



***Finish!***