BlackHat USA 2023 – Badge CTF

Setup Guide



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Setup Guide

Step 1: Get the Badge.



Step 2: Download and install the Arduino IDE from these links.





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Step 3: TUR

, then connect the badge to the system using a micro-usb cable.



Step 4: Start Arduino IDE, go to the "Tools" menu option and select the Port where the badge is connected.

👳 sketch_jun20a	Arduino 1.8.19		_		×
File Edit Sketch	Tools Help				
	Auto Format	Ctrl+T			Ø
	Archive Sketch				
sketch_jun20a	Fix Encoding & Reload				
<pre>void setup()</pre>	Manage Libraries	Ctrl+Shift+I			
// put your	Serial Monitor	Ctrl+Shift+M			
}	Serial Plotter	Ctrl+Shift+L			
<pre>void loop() {</pre>	WiFi101 / WiFiNINA Firmware Upo	dater			
// put your	Board: "Arduino Uno"	>			
}	Port: "COM4"	>	Seria	al ports	
	Get Board Info		~ CON	/14	
	Programmer: "AVRISP mkll"	>			
	Burn Bootloader				
_					



Step 5: Go to the "Tools" menu again and click "Serial Monitor".





Step 6: Keep the Serial Monitor settings as "Newline" and "9600 baud" and uncheck "Show timestamp" and then To start the CTF, type *** and click on "Send" button.

💿 сом4		_	×
***			Send
			1
			'
Autoscroll 🗌 Show timestamp	Newline ~	9600 baud 🔍	lear output



Step 7: The badge then prints the ASCII art and challenge menu. Select your puzzle choice (send 1, 2 or 3) to print the corresponding puzzle and enter your flag.





Step 8: For example to submit the web CTF, type "1" and click on "Send" button.





Step 9: It will show the URL where you can capture the flag.

```
💿 COM4
                                                                                         \times
Send
1. Web
2. Infra
3. Cloud
Verifying please wait...
             .-+*#%%%%%#*+=-.
         :+#@%*=+%@%=*@@#==*%@*=
        +%@+: .*@#: =@@= .-*@#-
     .*@#: =@%-
                      +@*. =%@=
    =@#: *@*
                       =#0000#= =0%:
   *@@+=--:.#@=
                      #000=-000#:+#00=
  #@-:-=+*#@@@@@@%%%%%%%%@@@=-. -=@@-=-:*@=
        :0# ..... %000-:000% #0:
 +@=
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         *@: .+#%%%#+:+%@@@@%+
 .0#
                                    #0.
 +@-
         00 *00000000* ..:%+
       .0# *0000000000* .0#
0# #0*==*00::$% .0#
                                     +@-
 *@.
                                     +@-
 *@:
 =0=
         00
             -@+::##@-.-@= :@+
                                     #0.
 68
         *0: :*00$#$00*: *0:
                                     :0#
                                   .:%@.
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         .0#
                --=-+--
                            .0%
  *@@%@%#*+%@+:..
                         ..:%@*+*#%@@@@@:
   +0* .:-=+#00#%%%0000%%%%%00+==-:.:%0:
    :%@-
           +@* .%@:
                                +@*.
      =%%=. :%%-
                      +@* :*@#:
        -#0#=: =0%- .+0#: :+%0+.
          -+%@#*+%@@+#@@*+*%@#+:
              .-=+**##**+=:.
https://web.ctf.nss.training
Please enter your flag
< Autoscroll 🗌 Show timestamp
                                                           Newline
                                                                      9600 baud
                                                                                        Clear output
                                                                                   \sim
```



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Step 10: Once you submit the correct flag, you will find the success message.

COM4	_		×
			Send
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			Sena
=+**##**+=:. https://web.ctf.nss.training Please enter your flag :			
Success! Web challenge is solved. Please select your option:			
1. Web 2. Infra 3. Cloud			
Autoscroll Show timestamp 9600 baud	$\mathbf{\nabla}$	Clear	output



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Step 11: Observe the light for web CTF.





Step 12: Once you submit all the CTF, it will turn on all the lights on the badge.





Step 13: Find the "GOLDEN STRING" in output which you can submit to following URL:

https://www.claranetcybersecurity.com/bhusa23-badge-submission		
© COM4 – [כ	×
]	Send
1 112		
2. filing		
s. cidad		
Verifying please wait		
:=*#\$\$\$\$\$\$*+		
-#0\$+-:. :=×0\$=		
× 10+ -0%+==:.		
+≢8+*×+=: ===+≢8(8.*:		
.+0*^: -#0:0:00:00:00:00= :+0#.		
10 - 00 '00' 01 01 = 0=		
₹€. =0€ 106 07 07 07 07		
- 07 - 00000000007 - 000 - 04 - 4-4-4-1 - 08		
https://cloud.ctf.nss.training		
Please enter your flag		- 1
		- 1
		- 1
Success! Cloud challenge is solved.		
Congratulations on solving all the challenges, use this golden string along with your email id to register for our Flipper Zero Raffle a	at :	11
https://www.claranetcybersecurity.com/bhusa23-badge-submission		
GOLDEN STRING:		
		J
Autoscroll 🗋 Show timestamp 9600 baud 🤍 Cle	ear ou	Itput

Step 14: To reset the badge, send RESET and reconnect the badge to Arduino IDE.

COM4	_	
<u> </u>		Send
RESET		1
BADGE RESET SUCCESSFUL! Please reconnect your badge to start again		
Autoscroll Show timestamp Newline v 9600 baud	~	Clear output

