

How to flash OEM unlocked uFR Online using Arduino IDE v1.0

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Prerequisites

uFR Online must be OEM unlocked. To check if the device is OEM unlocked download uFR Online USB tool from: www.d-logic.net/code/nfc-rfid-reader-sdk/ufr online-flasher-oneclick and check OEM status.

III uFR Online USB Tools		- 🗆 X				
uFR Online uFR NFC reader						
COM PORT: COM108 V R Connect uFR Online	Serial number:	MAC address: Hardware version: WiFi 2.0				
- Firmware install	Reset to default	OEM Unlock - Firmware developers only				
Available versions: 2.9.2W RLF communication improvements. Support for undate in A		OEM lock OEM unlock / Erase current firmware				
Install firmware	Reset to factory defaults	The OEM Unlock function erases the current µFR firmware and enables the custom firmware flashing.				
OEM UNLOCKED DEVICE)	This function can be applied to a single device THREE TIMES ONLY after which the device will permanently remain OEM locked!				
STATUS: CONNECTED OF UNLOCKED						

For more information about OEM lock and unlock read **uFR Online OEM lock/unlock** section of uFR Online Quick start Guide document:

https://www.d-logic.com/code/nfc-rfid-reader-sdk/ufr-doc/blob/master/uFR_Online%20-%20Quick_Start Guide.pdf

- Arduino IDE must be installed
- The ESP32 board must be installed in Arduino IDE. Follow instruction described in section Installing **using Arduino IDE** of official Espressif document:

https://espressif-docs.readthedocs-hosted.com/projects/arduino-esp32/en/latest/installing.html



How to flash OEM unlocked uFR Online using Arduino IDE?

- 1. Open Arduino IDE.
- 2. Open .ino sketch project.
- 3. Select ESP32 Wrover module board.

💿 sketch_feb09a A	rduino 1.8.13				- a ×
File Edit Sketch To	iols Help				
	Auto Format	Ctrl+T			<mark></mark>
	Archive Sketch				
sketch_feb09a	Fix Encoding & Reload				
#include "u	Manage Libraries	Ctrl+Shift+I			^
void setup()	Serial Monitor	Ctrl+Shift+M			
	Serial Plotter	Ctrl+Shift+L			
Serial.be(ESP Exception Decoder				
ReaderOper	ESP8266 Sketch Data Upload				
)	WiFi101 / WiFiNINA Firmware Updater				
	Board: "FSP32 Wrover Module"	Boards Manager	۵		
uint8_t last	Upload Speed: "921600"	Arduino AVR Boards	ESP32 Dev Module	TED22 Wrever medule beend	
void loop()	Flash Frequency: "80MHz"	FSP32 Arduino	ESP32 Wrover Module	ESP32 wrover module board	
uint8_t l	Flash Mode: "QIO"	ESP8266 Boards (3.0.	ESP32 PICO Kit		
uint8_t l	Partition Scheme: "Default 4MB with spiffs (1.2MB APP/1.5MB SPIFFS)"	>	MaaisRit		
uint8_t at	Core Debug Level: "None"	>	Turta IoT Node		
uint8 t ce	Port	>	TIGO LoRa32-OLED V1		
	Get Board Info		TIGO TI		
if (card_)	Deserammer		XinaBox CW02		
f memory (Programmer Ruse Restleader		SparkEun ESP32 Thing		
delay (150));		u-blox NINA-W10 series (ESP32)		
return;			Widora AIR		
)			Electronic SweetPeas - ESP320		
if (Imencmp	(aucUid, lastAucUid, lpucUidSize))		Nano32		
(LOLIN D32		
delay(150));		LOLIN D32 PRO		
return;			WEMOS LOLIN32		
1			Dongsen Tech Pocket 32		
Serial.print	tln("CARD IN FIELD");		WeMos WiFi&Bluetooth Battery		
memopy(lasti	AucUid, aucUid, lpucUidSize);		ESPea32		
17 (Set TSO)	4443 4 Mode() != UFR (0K)		Noduino Quantum		
(Node32s		
return;			Hornbill ESP32 Dev		
delay(150));		Hornbill ESP32 Minima		
1			FireBeetle-ESP32		
Serial.print	tln("ISO MODE OK");		intoRobot Fig		
uint8_t c_a	pdu[11] = (0x00, 0xA4, 0x04, 0x00, 0x06, 0xF0, 0x11	L, 0x22, 0x33, 0x44, 0x55);	Unehorse ESP32 Dev Module		
uint32_t c_	apou_ien = sizeof(c_apdu); ndu[1024];		Adatruit ESP32 Feather		
u			MH FT LIVE FSD32DavKIT		~
			MH FT LIVE FSP32Minikit		
			ESP32vn IoT Uno		
			DOIT ESP32 DEVKIT V1		
			OLIMEX ESP32-EVB		

- 4. Select COM port.
- 5. Click on the Upload button.
- 6. Device will automatically enter ESP32 download mode, there is no need for a manual restart.



Revision history

Date	Version	Comment
2023-02-14	1.0	Base document