



Color LED DMD controller for virtual and real pinball machines

INSTALLATION INSTRUCTIONS

1st run with the Firmware on the STm32F4 discovery board with or without DotMatrixDisplay

- 1) Download Files from the project folder on github <https://github.com/lucky01/PIN2DMD>
- 2) Connect the HUB75 Cable with the STm32F4 Board and the RGB Display
 - You find the PinOut in Subfolder "PCB" in these Files "wiring.md" and "PIN2DMD_sch.pdf" or just use the extra PCB Board.

HUB75			
PIN :	function:	function:	PIN :
1	R1	G1	2
3	B1	GND	4
5	R2	G2	6
7	B2	GND	8
9	A	B	10
11	C	D	12
13	CLK	STB	14
15	OE	GND	16

STm32F407 VGT6	
PIN:	function:
GND	GND
PD0	R1
PD1	G1
PD2	B1
PD3	R2
PD4	G2
PD5	B2
PE2	A
PE3	B
PE4	C
PE5	D
PD6	CLK
PE6	STB
PC6	OE

When you don't have any Displays at the moment, you can test the "DATA transfer function" without the Display, just go to the next step.

- 3) Connect the micro USB Cable with your ST Board and your PC
 - **!! USE ONLY USB 2.0 ports !!** (USB 3.0 or higher is NOT supportet !!!)



- 4) Power up your Controller with 5V DC



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- With USB mini Cable: Power your STM32F4 over the MINI-USB port
 - With WIRE bridge: bridge between PA9 and 5V
 - With breakout PCB: Power your STM32F4 with ext. 5VDC or micro USB cable
- Power over mini USB:



When the STM32F4 Board has Power, you should see the

Pin2DMD Open Source Logo on the DMD Display



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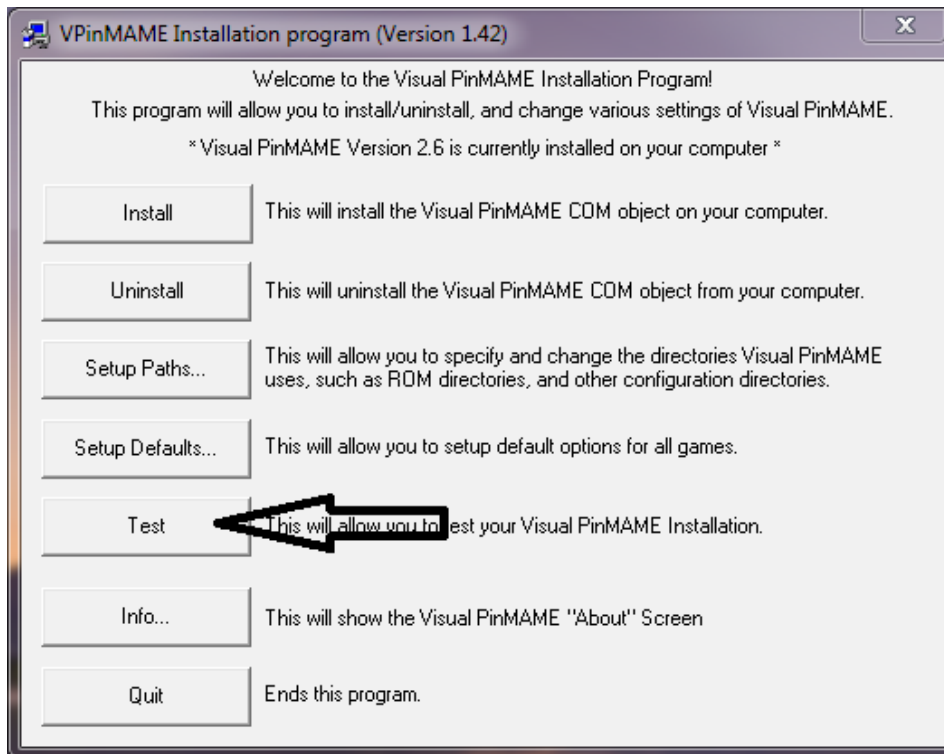
Version: 11-29-2015



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INSTALLATION INSTRUCTIONS

- 5) Install the needed "Sam VPinMame" Version
 - You can Download the latest Sam VPinMame here, there are also install instructions:
 - <http://vpuniverse.com/forums/files/file/2480-vpinmame-sampindmd-1-and-2unity-unified-version/>
 - **Please use this package: "For all the others, use VPINMAME_SAM_UNIFIED_x.yz"**
 - **Don't use this package: "VPINMAME_SAM_PINDMD1_UNIFIED_x.yz" Package!!!**
- 6) Activate the PINDMD option in the VPinMame Software: "Game Options"
 - a) Click on Setup.exe in your VPinMame Folder -> Test

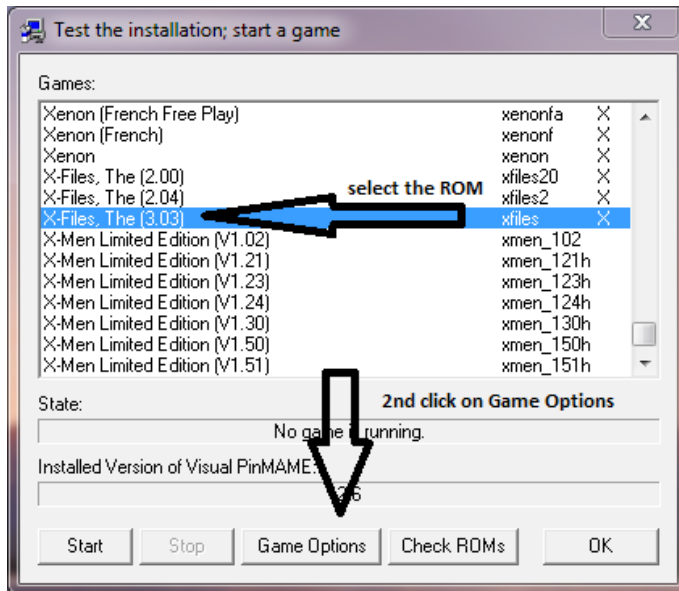




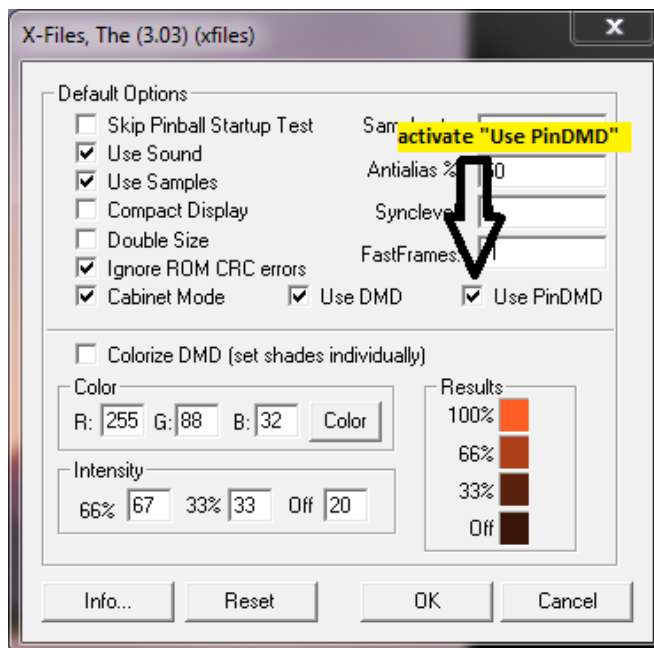
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INSTALLATION INSTRUCTIONS

- b) Select a ROM with DMD (in my case "X-Files")
- c) Click on "Game Options" Or get to this screen with "F1" during the running VisualPinball.



- d) Activate "USE PinDMD" than click on "OK"

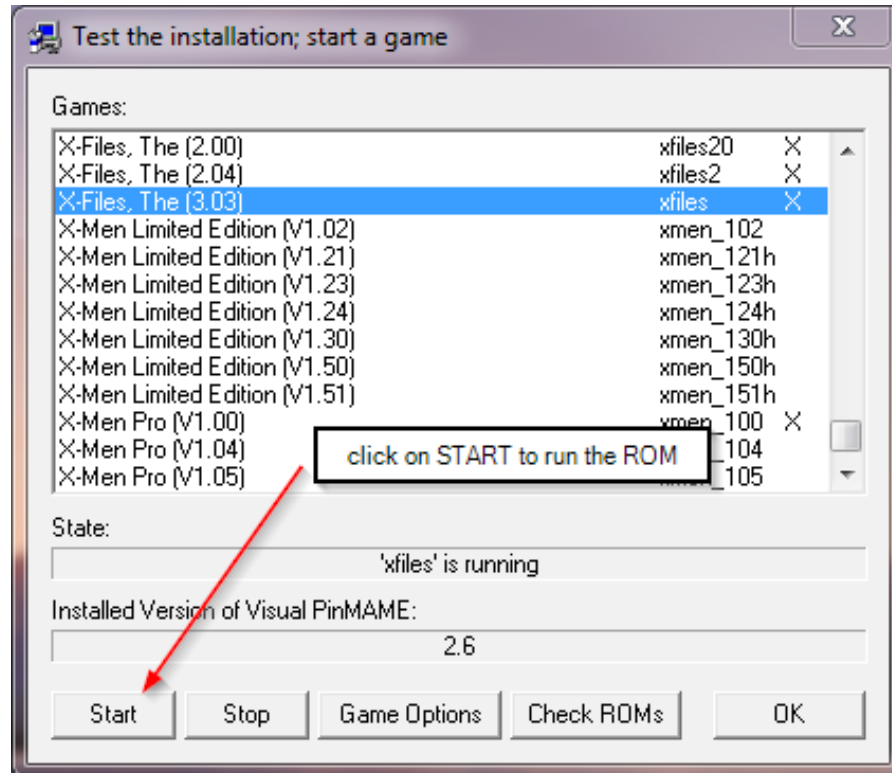




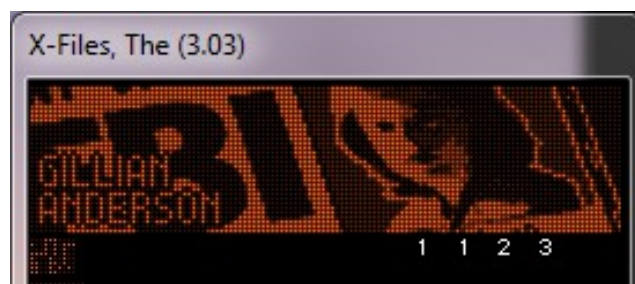
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- 7) Start the Rom Test or run it with Visual Pinball
- An almost full ROM zip file is in the folder: "PinMame full rom list"



- 8) Sit back, see and enjoy!
- With DMD: the running DMD from the selected rom
 - Video is here: [YouTube Video of running DMD](#)
 - Without DMD: toggling of the "BLUE" Led from the STm32F4 Board, when it receives [new DATA YouTube VIDEO](#)





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INSTALLATION INSTRUCTIONS

Don't forget:

Post some Pictures / Videos in the VPU forum: (international forum)

<http://vpuniverse.com/forums/forum/132-pin2dmd/>

and or in the Flippermarkt Forum: (German forum)

<http://www.flippermarkt.de/community/forum/showthread.php?t=160762>

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Lucky1: <http://vpuniverse.com/forums/user/7772-lucky1/>

UncleSash: <http://www.diysascha.wordpress.com>

Version: 11-29-2015