## **W8BH clocks**

## Build a microcontrollerbased clock. Here are several.

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Clocks are fascinating tools, aren't they? We have used and relied upon them for centuries. In our lifetime, clocks have become quite precise; small timepieces are now capable of displaying the time to within microseconds of a common standard. It is nothing short of amazing.

Not only can we acquire such precise timepieces, but we can build them ourselves, too. I have built several different clocks, each with a particular purpose in mind. The following is a summary of my clocks with links to the appropriate documentation.

Name	Microcontroller	Display	Time Standard	Coding Environment	Tutorial or Description	Source Code
NTP_DualClock	ESP32	320 x 240 TFT LCD	NTP (WiFi)	Arduino	Link	<u>Link</u>
GPS_Clock_Dual GPS_Clock_Single GPS_Clock_Plus	STM32 Blue Pill	320 x 240 TFT LCD	GPS	Arduino	<u>Link</u>	Link Link Link
WWVB_Clock	STM32 Blue Pill	320 x 240 TFT LCD	WWVB	Arduino	Link	Link
GPS_Clock	ATmega 32u4	7-segment LED	GPS	Arduino	Link	<u>Link</u>
GPS_Clock2	ATmega 32u4	16 x 2 character LCD	GPS	Arduino	Link	Link

Let me know if you build any of these!

73, Bruce.