

# Scoreboard

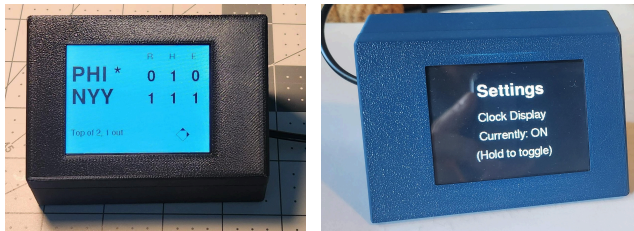


## Overview

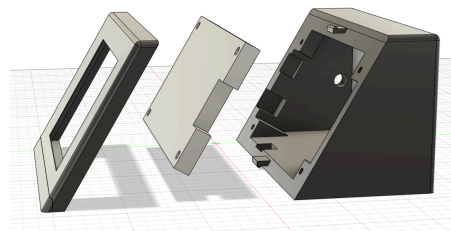
The 'Scoreboard' looks and works like a typical digital clock with a covert function: touching the screen queries the MLB StatsAPI and displays live MLB game info on an ESP32 touchscreen (CYD) with clock, Wi-Fi config, and offline persistence. Measures 98mm x 60mm x 57mm, weighing only 124g. Uses a 3D-printed enclosure modeled from scratch in Fusion 360.

## Photos

Finished Build



Enclosure Design (Designed in Fusion 360)



## Code

- Plug in the 2.4" CYD with a micro-USB to USB-A cable, then open Arduino IDE
- Select 'ESP32 Dev Module' and the relevant USB port
- Upload the 'ScoreboardPrototype.ino' in the project files here to the ESP32 embedded in the CYD module (If team other than NYY is desired, change two lines of code)
- Watch serial monitor for errors, then test functionality on the board to confirm all went well

## Build Steps

- Configure WiFi access via the Captive portal
- Print the bezel and base from the 'Scoreboard.stl' file in this project
- Route the power and ground leads from a USB-A cable through the port on back, tie a knot into the USB cable for strain relief, then wire into the JST port
- Screw the CYD onto the base the snap fit the bezel onto the front

## Lessons Learned

- Making enclosure adjustments in Fusion 360 is brutal when the front plane is at a 60 deg angle
- Some games end with no bottom of 9th — failsafe needed for final detection.
- Display spacing and font choices are tricky on this module - tune for clarity.

**Full build log, code, and files:** <https://github.com/ChandlerEx/Projects>