AMG GT3 Wheel Kit Updates 2021

Support for this wheel will no longer be provided after May 2021.

This project is now two and a half years old as of May 2021 and since I no longer have a sim rig (sadly), I will be discontinuing support for this wheel.

Since there are still people out there who use this wheel and those who want to build the wheel in the future, I am providing final updates to the project to include changes I made throughout the years and solving issues that some users may have experienced.

New STL Files

- `Full_Plate.stl`
    - Full wheel added for those who have a print bed large enough to print as one piece. If this does not fit on your print bed then you must print the left and right panels separately.
- `Circuit_Board_Mount.stl`
    - Circuit board mount added for those who decide to order a circuit board from the provided design. Simply glue it behind the wheel plate, the cutout at the bottom of the holder is to prevent obstruction of the emblem plate pins.

New SVG Files

- `Wheel_Plate.svg`
    - As per excessive requests and popular demand, I have finally decided to add the wheel plate SVG file. This is for those who wish to have the wheel machined and not 3D printed. I have decided to do this as I no longer have future plans for this wheel. Be aware that you will no longer be able to use the PSP 1000 joystick if you decide to go this route.

New Circuit Board Files

- `Gerber_Files.zip`
    - Gerber files have been provided for those who wish to order a circuit board for their wheels. This board was my first ever attempt at designing circuits and worked on the first try. I did not revise this as I didn't find it necessary.
    - You can order (minimum) 5 boards for $2 at JLCPCB.com. Just upload the included `.zip` file and the only option you need to change on the website is the PCB Color to whichever you prefer. You can leave all other options to the default values.
    - You can order the JST connectors on Amazon:
        - Mini Micro Jst 2.0 Ph 2-Pin Connector Plug Male with 150mm Cable & Female
        - `https://www.amazon.com/gp/product/B01DUC1O68/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1`
    - I recommend you go this route if you don't have much experience with electronics.

New Arduino Sketch Files

- **It is recommended that you use the sketch files provided in the download with this project and not the version mentioned in the Assembly Manual.**
- I have updated the main Arduino sketch to include a header file `JoystickThresholds.h` that contains the threshold values for the joystick.
    - Brief overview of how the joystick works:
        - The joystick has an X and Y axis with minimum and maximum values at the end of both axes. If the value exceeds the max threshold or minimum threshold, then is simply simulates a button (D-Pad) press in that direction.
- Since there have been several cases of users having issues with these thresholds. I have included a second Arduino sketch that allows you to find the best threshold values. After constructing and wiring your wheel, upload this sketch onto the Arduino and open the serial monitor. Be sure to set the baud rate to `9600`. The program will then walk you through the steps of obtaining the best threshold values. Once completed, it will print the values to the serial monitor and you simply need to copy these values into the `JoystickThresholds.h` file. Once you've copied the values, upload the `AMG_GT3_Wheel.ino` sketch to the Arduino.