

Upgrading X-Arcade Tankstick Models with Spinners

Introduction

This guide provides step-by-step instructions for adding two extra spinners to your Tankstick (Tankstick with Trackball, Tankstick Duel, or Tankstick Solo). The process takes approximately 30–45 minutes.

Important Notes:

- Ensure you are comfortable using tools like screwdrivers and Allen wrenches.
- Follow proper safety precautions.
- Perform all steps with care. Keep the workspace free of children and distractions.
- Xgaming is not liable for any damage caused during the modification process.
- Only modify functional units. Warranty does not cover damage during modding.

Tools needed:

- Screwdrivers (both cross-head and flat-head)
- Allen wrench
- Arcade nut removal tool (optional; included with the Tankstick, or available on Amazon/eBay)

Preparation

Before installation, disassemble the spinner module provided in the kit (designed for the Arcade2TV-XR).



1. Remove the sensor module by pulling it outward to the side.



2. Unscrew and remove the nut.



3. Detach the spinner body from the plastic holder. Set all parts aside for later use.
4. Repeat steps 1–3 for the second spinner module.

Installing the Spinner Upgrade

1. Place your Tankstick upside down on a soft surface to avoid scratches.



2. Use a flat-head screwdriver to remove the 8 rubber caps (if present) covering the screws.



3. Unscrew all screws securing the backplate.



4. Carefully pry the backplate open using a flat-head screwdriver. Set the backplate aside.



5. Choose two spots for the spinners. You can either drill two 28mm holes, or replace two existing pushbuttons with spinners (as demonstrated in this guide).



6. Detach the microswitches from the pushbuttons you plan to replace and set them aside.



7. Unscrew and remove the selected pushbuttons.



8. Insert the spinner into the pushbutton hole and secure it with the provided plastic nut.



9. Attach the sensor module to the spinner body, ensuring it locks into place in the correct orientation.



10. Repeat steps 1–2 for the second spinner.



11. Adjust Trackball Cable (For Tankstick with Trackball Only)

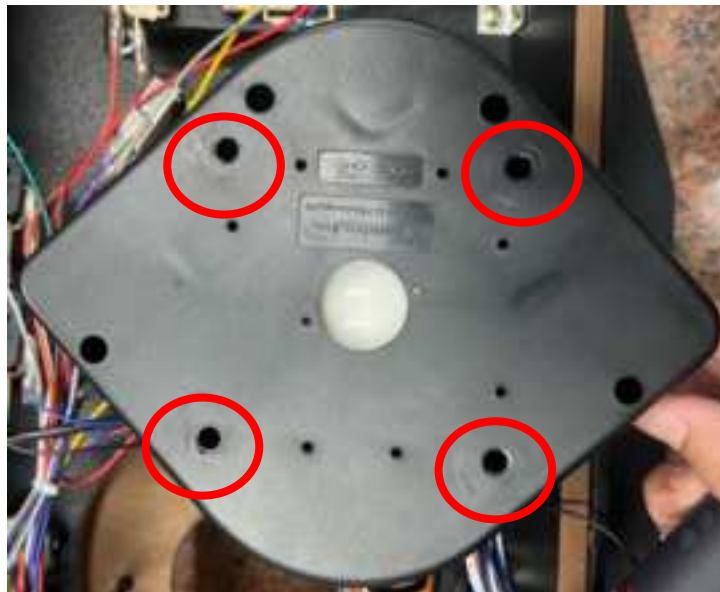
- a. Remove the four metal nuts securing the trackball.



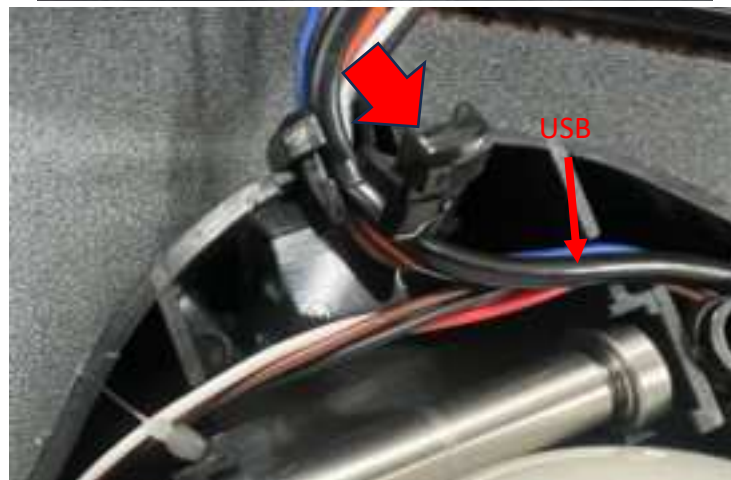
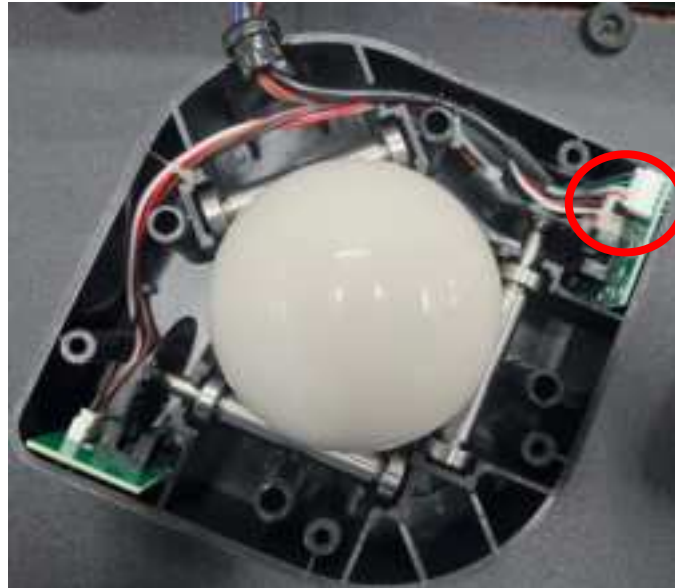
- b. Detach the trackball, noting its orientation for reinstallation.



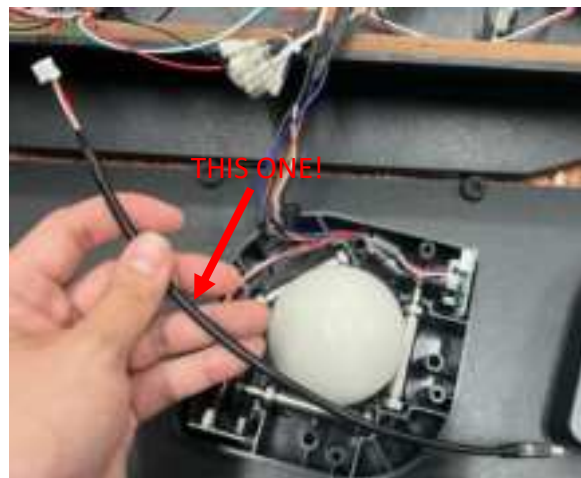
- c. Flip the trackball over and unscrew the casing.



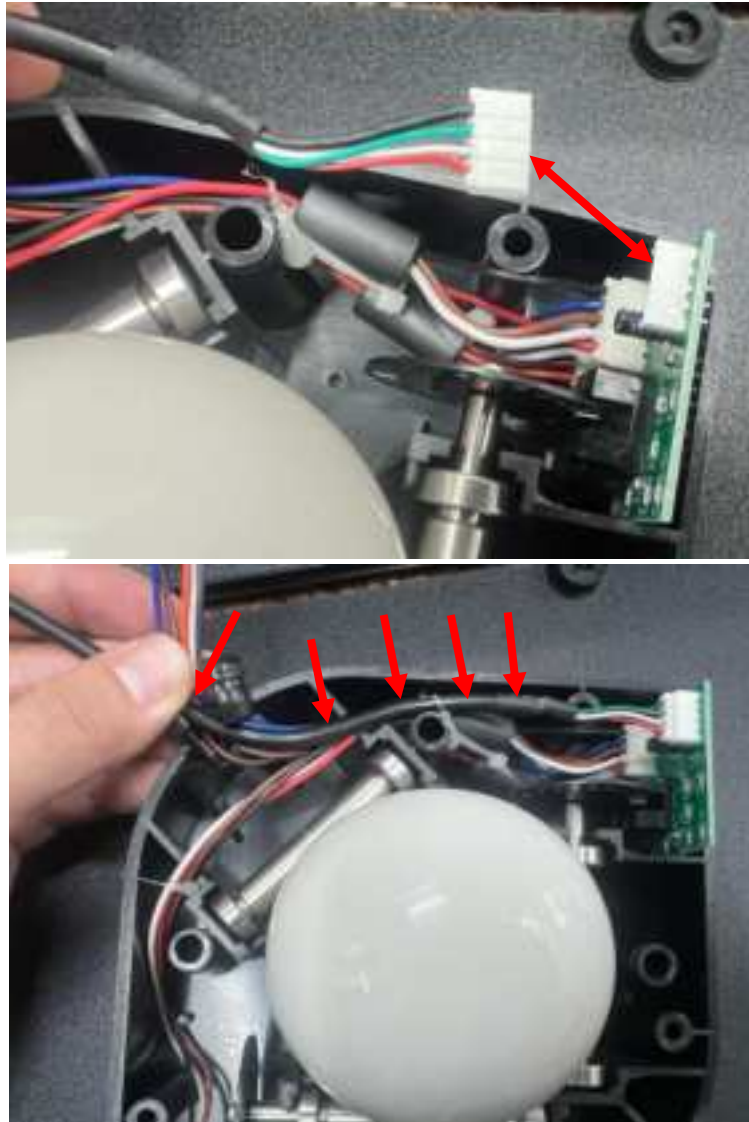
- d. Carefully separate the housing, remove the cable clamp, and unplug the USB cable from the PCB.



- e. Replace the USB cable with the shorter one included in the kit.



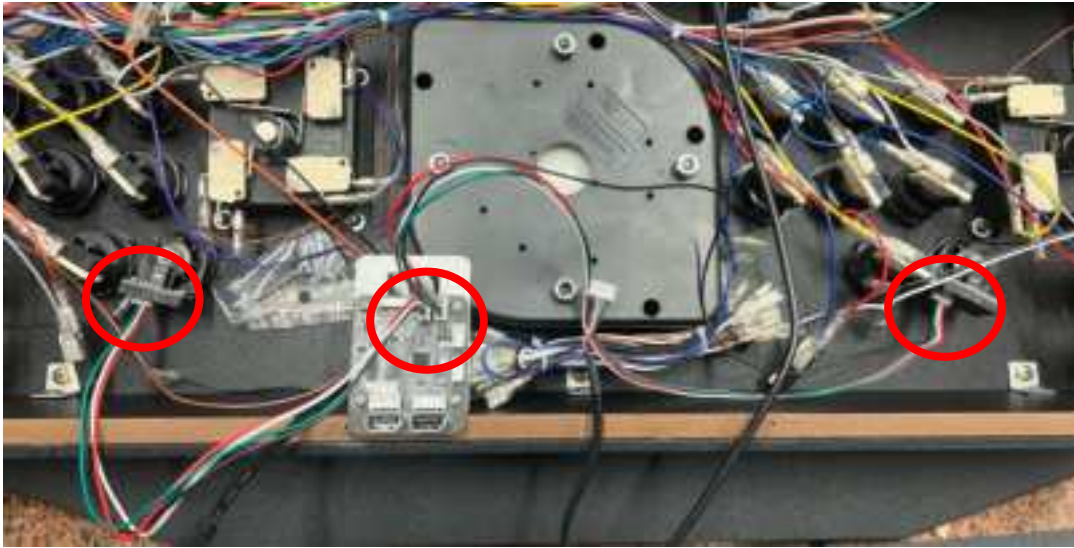
- f. Reconnect the cable to the PCB and secure it in the cable clamp. Ensure no cables are pinched.



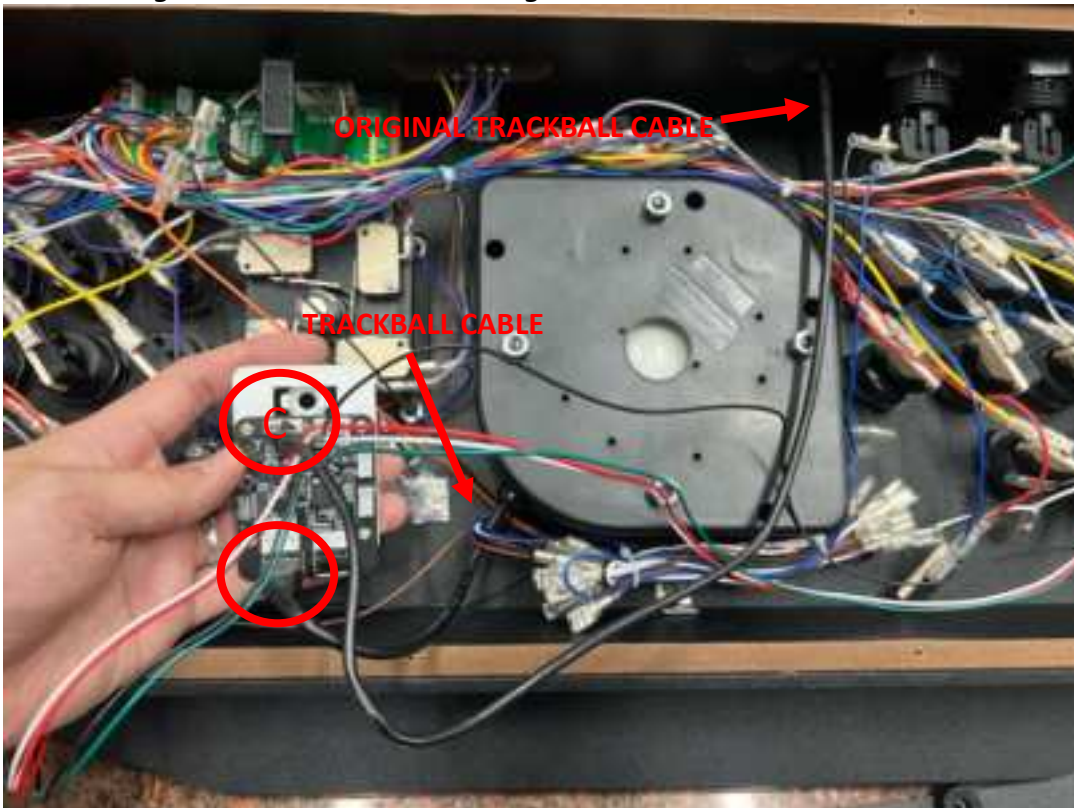
- g. Reassemble the trackball, ensuring screws and nuts are tight and the orientation is correct.



12. Retrieve the PCB and spinner cables provided in the kit. Plug the two spinner cables(A) into the designated ports on the PCB.



13. For Tankstick with trackball unit, connect the trackball USB cable to any USB-A port on the PCB. And plug the original trackball cable 4pin connector into the PCB Port C as indicated below. ***For Tankstick Duel/Solo, use the longer USB cable from the kit, routing it out through a drilled hole in the casing.***



14. Tidy up the internal wiring, ensuring nothing interferes with components. And place the PCB securely inside the Tankstick, avoiding obstructive areas.



15. Reattach the backplate and secure it with screws. And reinstall the rubber caps if applicable.



Enjoy your upgraded Tankstick!

Happy gaming!



Additional Instruction

Features:

- High Sensitivity Spinners: Adjustable DIP switches allow customization of speed and functionality.
- Built-in Mixer: No external adapter needed for Raspberry Pi.
- DIP Switch Settings: Speed: 2x, 1x, 1/2x, or 1/4x; X/Y or Y/X axis swapping; Mixer enabling/disabling

DIP Switch Usage

| Function | CPR | SW1 | SW2 | SW3 | SW4 |
|-------------------|------|-----|-----|-----|-----|
| 2X SPEED(DEFAULT) | 1600 | ON | ON | | |
| 1X SPEED | 800 | OFF | ON | | |
| 1/2X SPEED | 400 | ON | OFF | | |
| 1/4X SPEED | 200 | OFF | OFF | | |
| X/Y | | | | ON | |
| Y/X | | | | OFF | |
| Mixer Disabled | | | | | ON |
| Mixer Enabled | | | | | OFF |

IMPORTANT NOTE for RETROPIE USERS with the SPINNER:

The spinner's CPR value functions differently on RetroPie. Double the sensitivity setting (e.g., 30 on PC becomes 60 on RetroPie) to achieve the same speed.

For detailed sensitivity settings and game-specific CPR values, refer to the guide:

https://wiki.arcadecontrols.com/index.php?title=Spinner_Turn_Count.