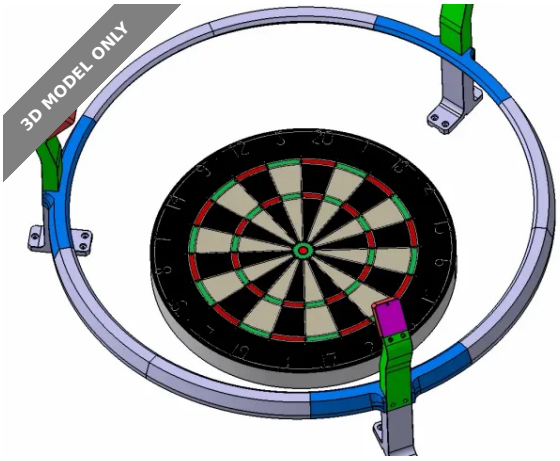

Dartboard LED Ring and Camera Mount V2

v viperman3

VIEW IN BROWSER

updated 22. 2. 2025 | published 22. 2. 2025

Summary

Dartboard LED Ring and Camera Mount V2

Sports & Outdoor > Indoor Sports

Wanted to make LED ring and Camera mounts for my Dartboard Setup which was easy to print. This design is adapted from this website (https://docs.autodarts.io/3d-printing/).
Github for autodarts is https://github.com/autodarts
Discord server is https://discord.com/servers/autodarts-community-802528604067201055

All parts except for the camera cover can be printed without any supports.

I printed mine at 0.28mm layer height with a 0.4mm nozzle using PLA Plus without any issues. LED segments were glued using 5 minute epoxy adhesive. Hardware requires is M4x20 and M4x18 Socket Button-head screws with M4 hex nuts. The OV2710 USB Camera Module is held with M2x6 screws as is the Camera Cover

Assemble the LED ring elements with the connection pegs using 5 minute epoxy.

Update 3/24/2023: Added Ring Light - Connection Peg - More Clearance.stl (Connector Peg with 0.3mm clearance for easier assembly)

Update 2/21/2024: Added "Ring Light v2" Prefixed models that add provision to block light-bleed (add 1.75" Diameter filament in groove before assembling the light ring with the connection peg). The "Ring Light v2 (40mm)" Prefix raises the LED Ring by 40mm from the previous version.

Update 3/02/2024: Added relief in camera cover for modules that have straight connector. Press down wires to route closer the connector then install the Ring Light v2 - Camera Housing Cover v2.stl

Update 2/22/2025: Added Ring Light - Foot (mounting holes updated for CNC base).stl, Ring Light - Foot LED cable route (mounting holes updated for CNC base).stl and Base_plate_Standard_RL3d-B3D.dxf for anyone who wants to mount the complete assembly onto a CNC base. DXF was provided by RupiLab3D with his remix version of the base models available here: https://www.printables.com/model/1193212-autodarts-foot-variants-for-viperman3-with-new-sta

Hardware:
Qty 6 M4x20 Buttonhead Cap Screw
Qty 6 M4x18 Buttonhead Cap Screw
Qty 12 M2x6 Buttonhead Cap Screw
Qty 3 M2x6 Countersink Screw
2 part Epoxy to assemble Led Ring Segments and Connection Pegs
Small pieces of 1.75" Diameter Filament for light-bleed block (see images)

Model files

ring-light-camera-housing-cover.stl

ring-light-connection-peg.stl

ring-light-arm.stl

ring-light-camera-housing.stl

ring-light-ring-element.stl

ring-light-ring-mount.stl

ring-light-foot.stl

ring-light-foot-led-cable-route.stl

ring-light-camera-housing-cover-v2.stl

ring-light-with-camera-mount.stp

ring-light-connection-peg-more-clearance.stl

ring-light-v2-connection-peg.stl

ring-light-v2-camera-housing.stl

ring-light-v2-40mm-arm.stl

ring-light-v2-ring-element.stl

ring-light-v2-40mm-foot.stl

ring-light-v2-ring-mount.stl

ring-light-v2-40mm-foot-led-cable-route.stl

ring-light-with-camera-mount-ring-light-40mm.stp

ring-light-v2-camera-housing-cover-v2.stl

ring-light-foot-mounting-holes-updated-for-cnc-base.stl

ring-light-foot-led-cable-route-mounting-holes-upda… .stl

base_plate_standard_rl3d-b3d.dxf

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