



Kinkajou

[kinkajou.designthatmatters.org](http://www.designthatmatters.org)

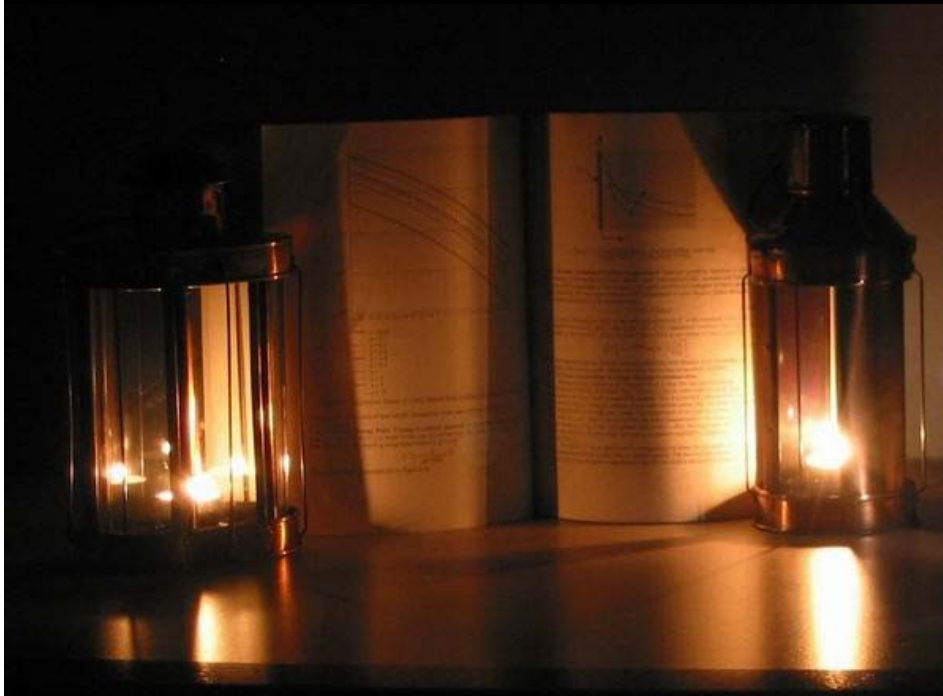
First Student Team
MIT D+M 2002

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Night-time women's literacy course in rural Mali (World Ed.)

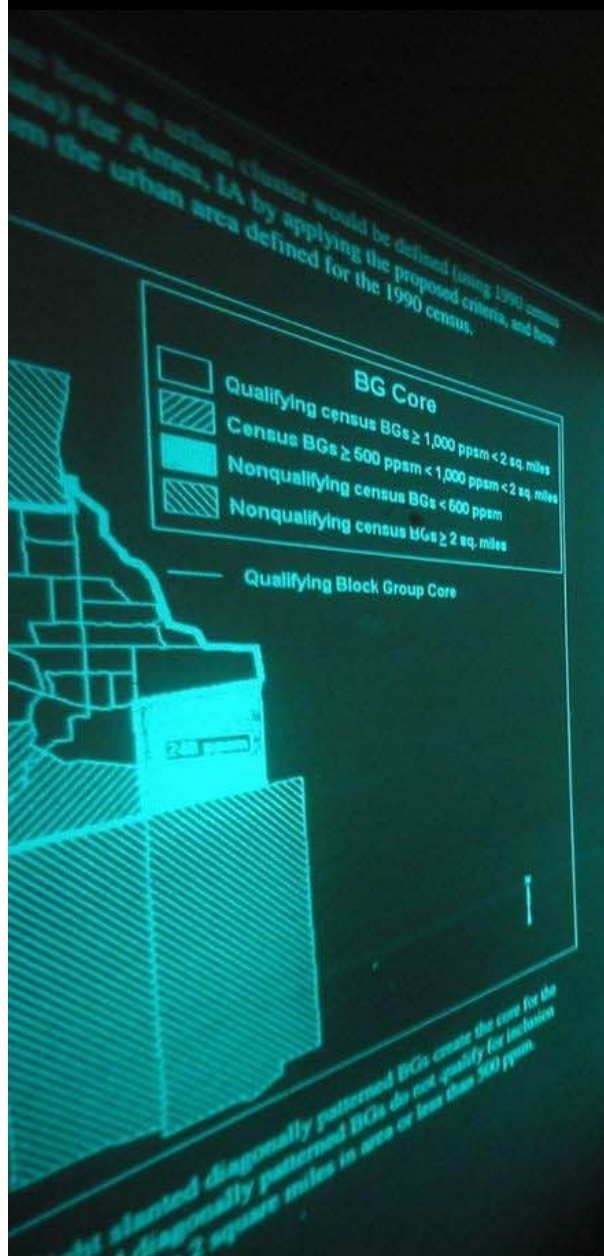
Books are expensive
to print and ship

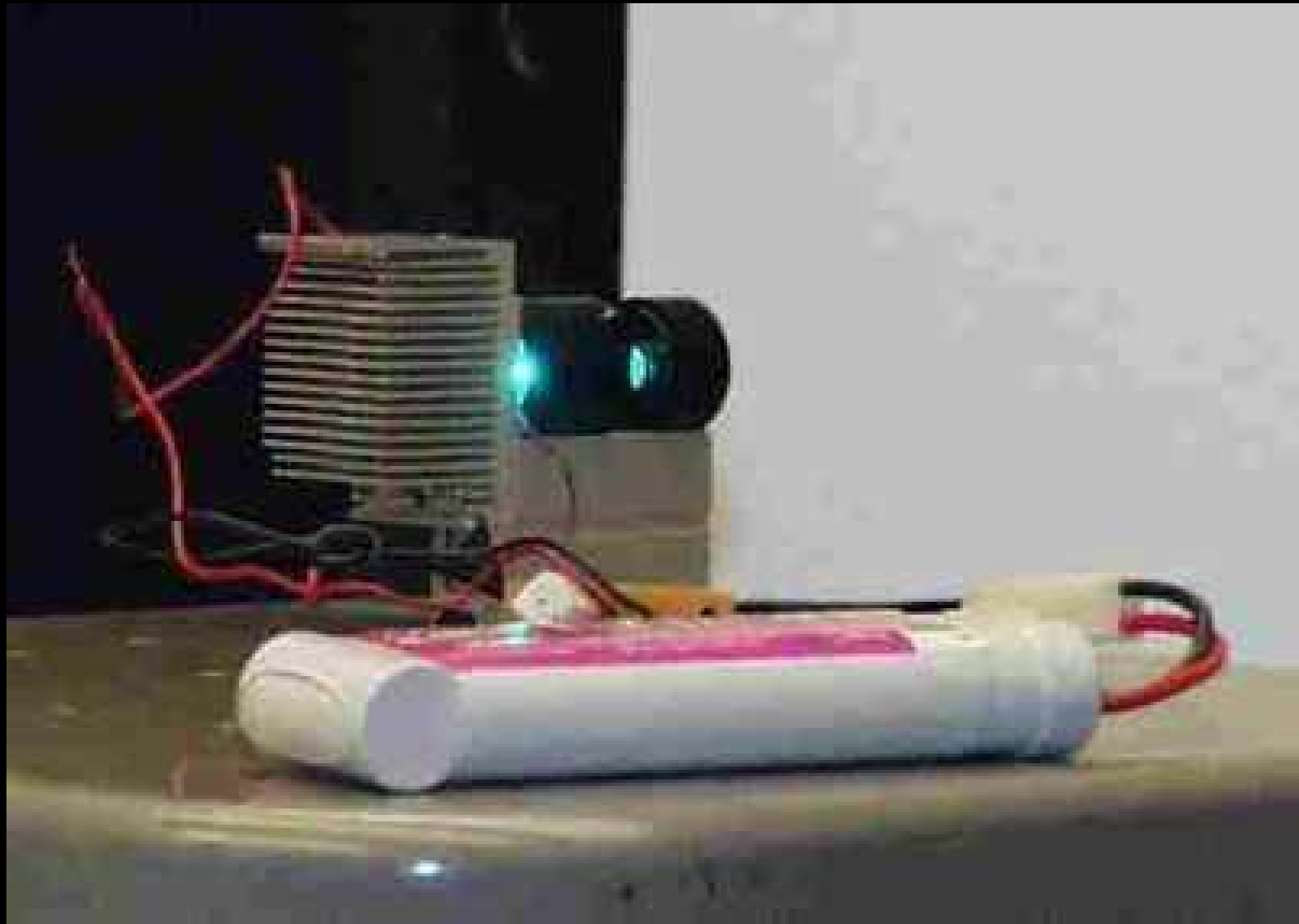


No electricity means
no electric lights!

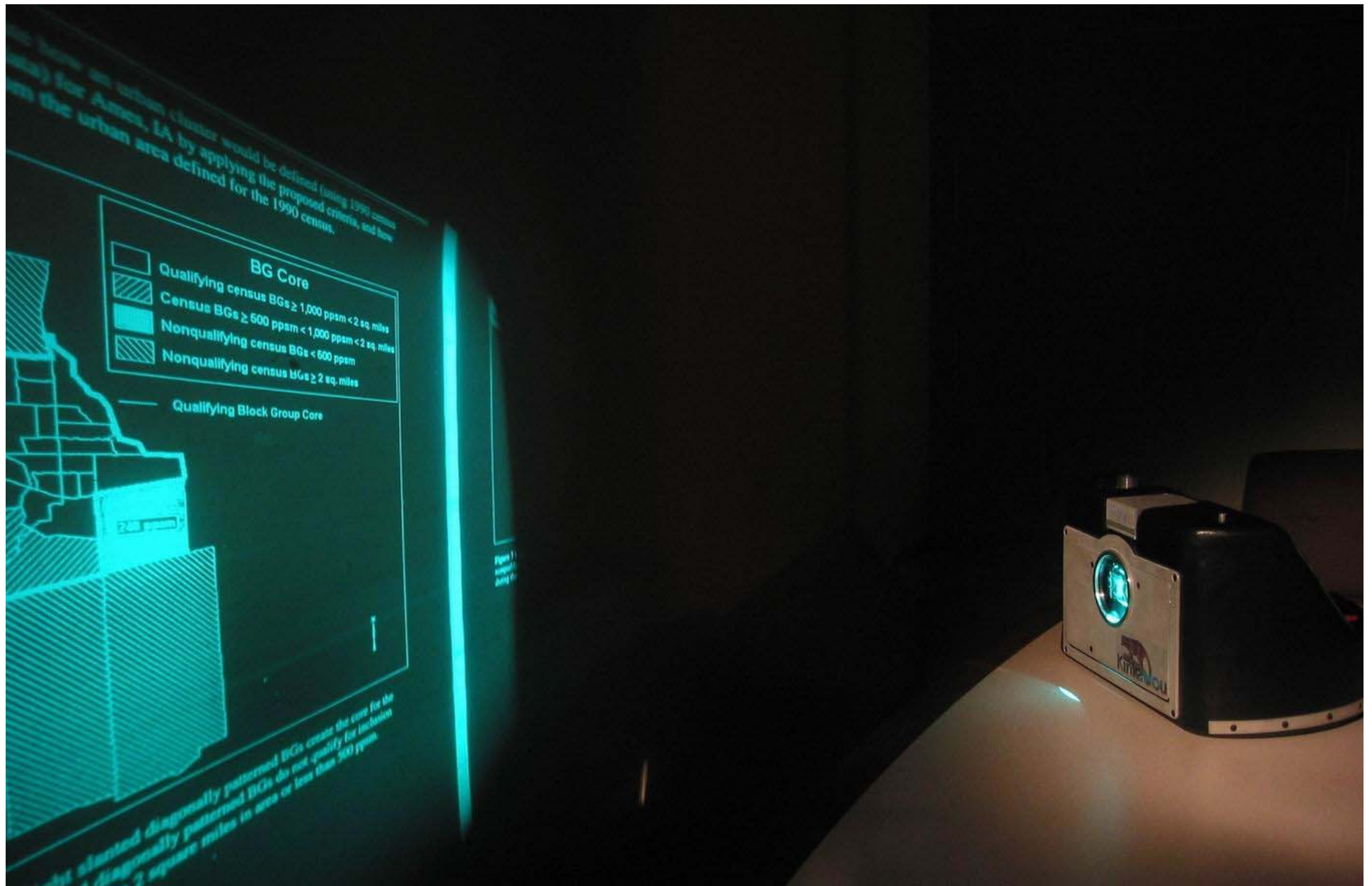
- Kinkajou basic specification:
 - projector to “replace” books (for use with “canned” content)
 - projector for text and outline drawings
 - projector for use in dark, hot, dry, dusty environment
 - projector for use where there's no electric power available (even a car battery)
 - Lifetime to exceed 500 hours
 - Cost less than \$50

Our answer: Microfilm Projection System

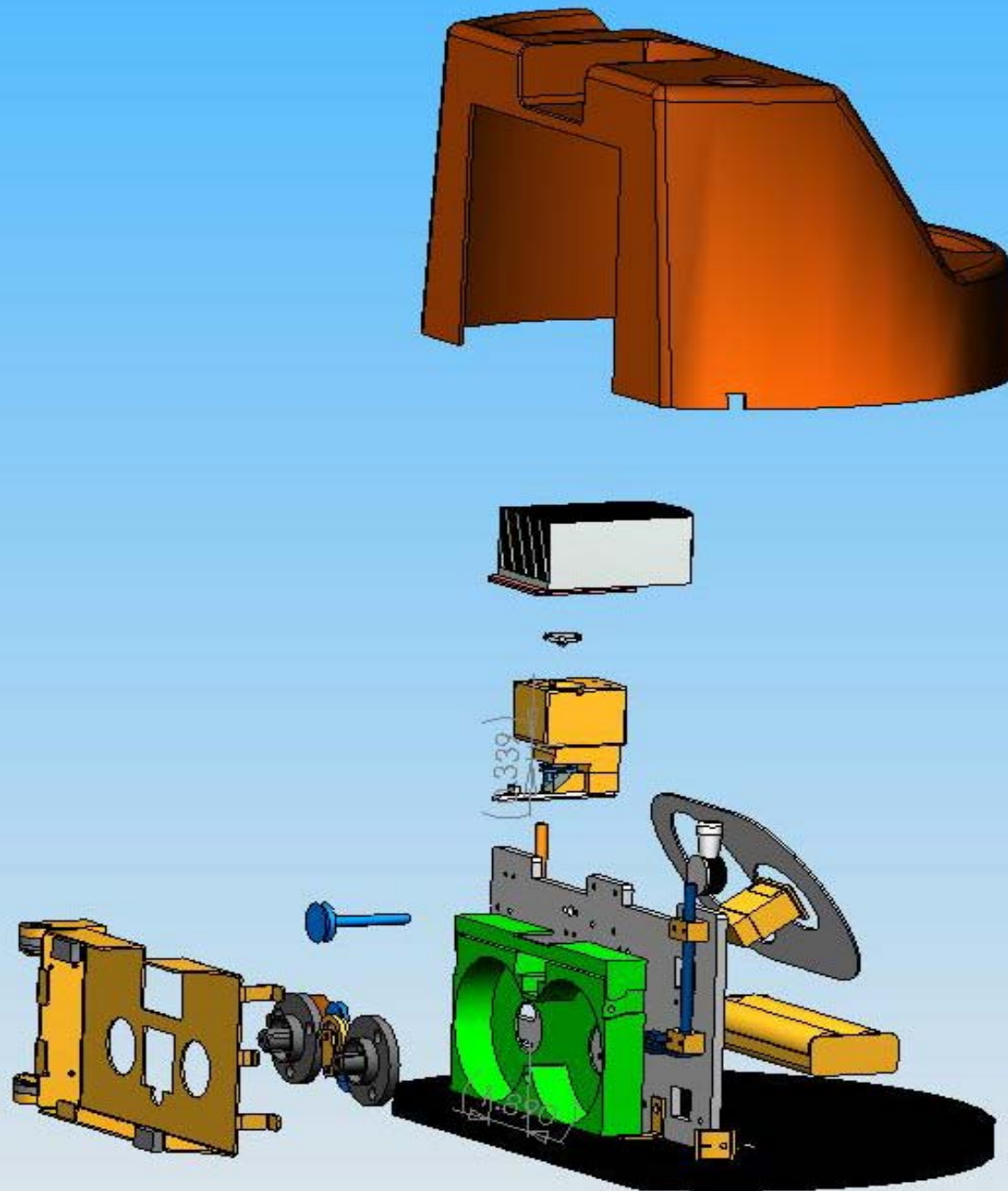


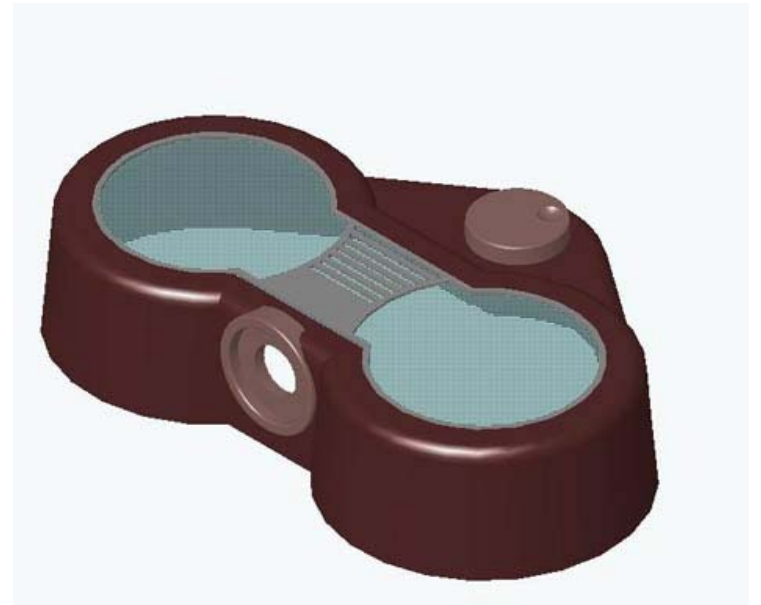
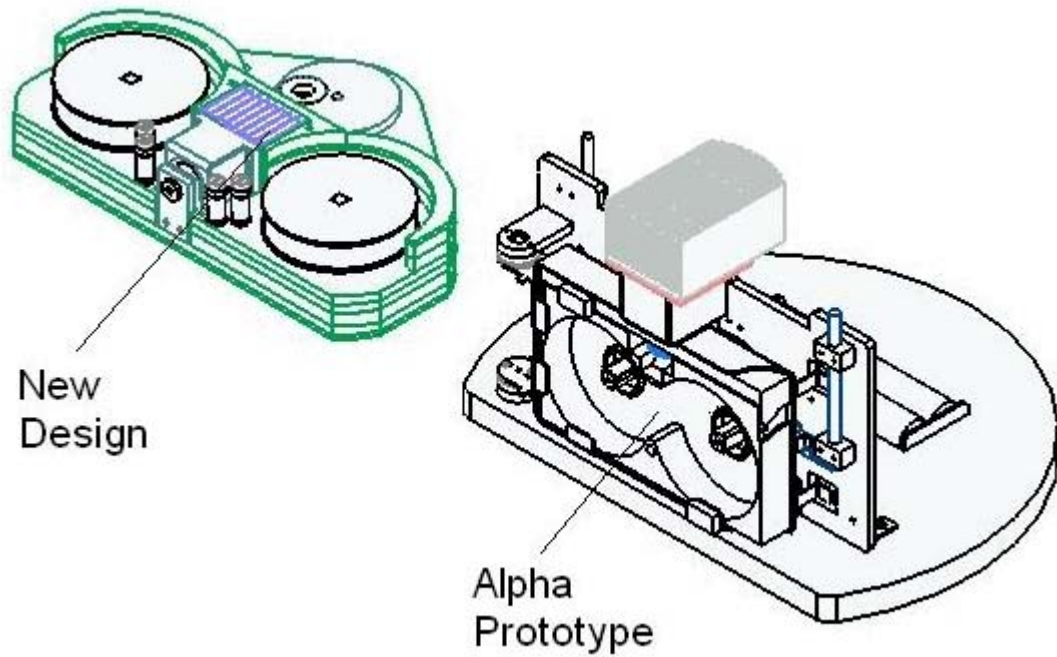


Microfilm Projector, Early Working Model



Kinkajou "Alpha", First Generation Prototype





Kinkajou Microfilm Projector - Alpha and Beta Prototypes

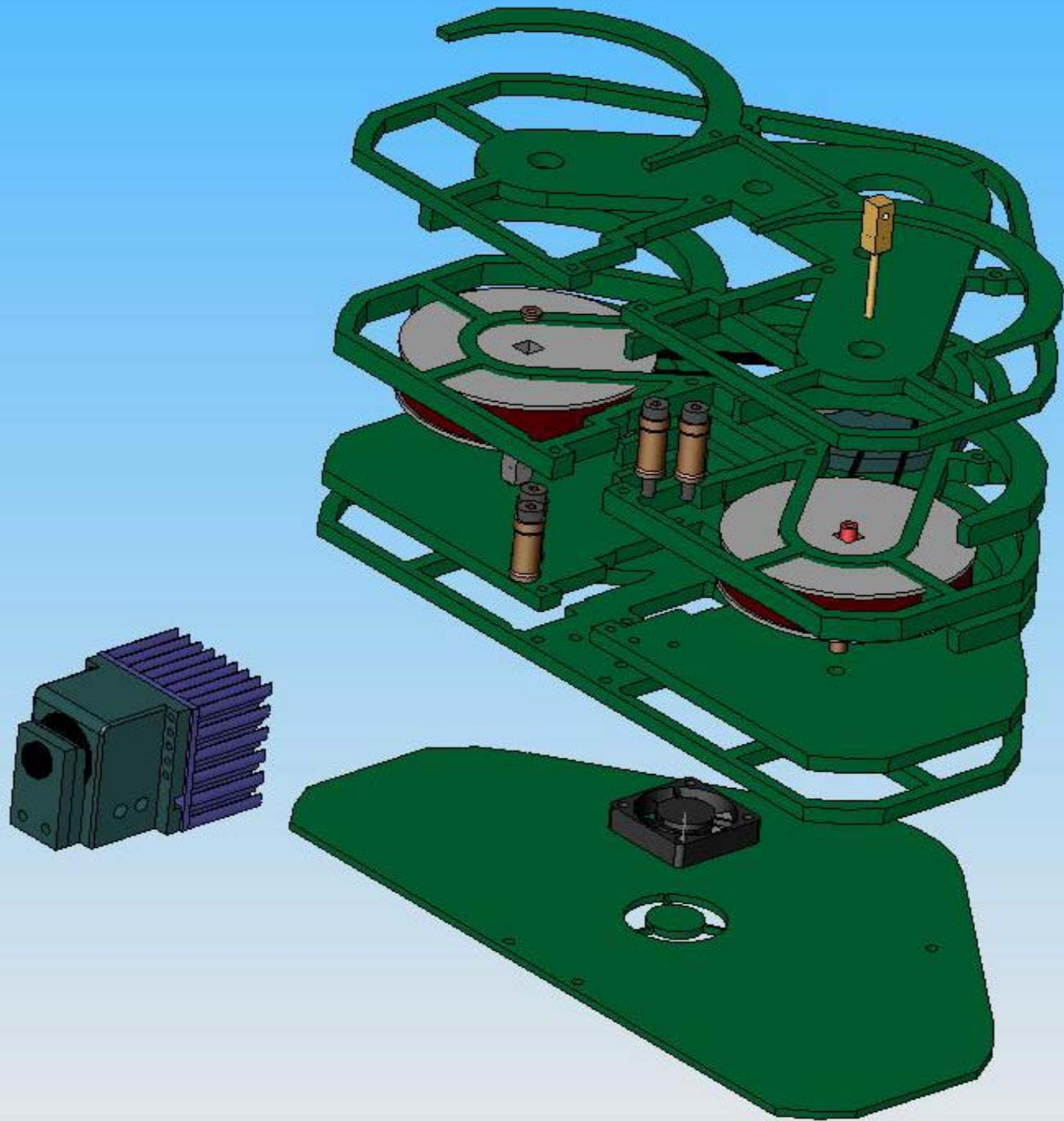


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Kinkajou Team and AJA in Bamako, Mali - July 2003

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Kinkajou Prior Art – the AJA *Boite des Images*

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sayi yere yada

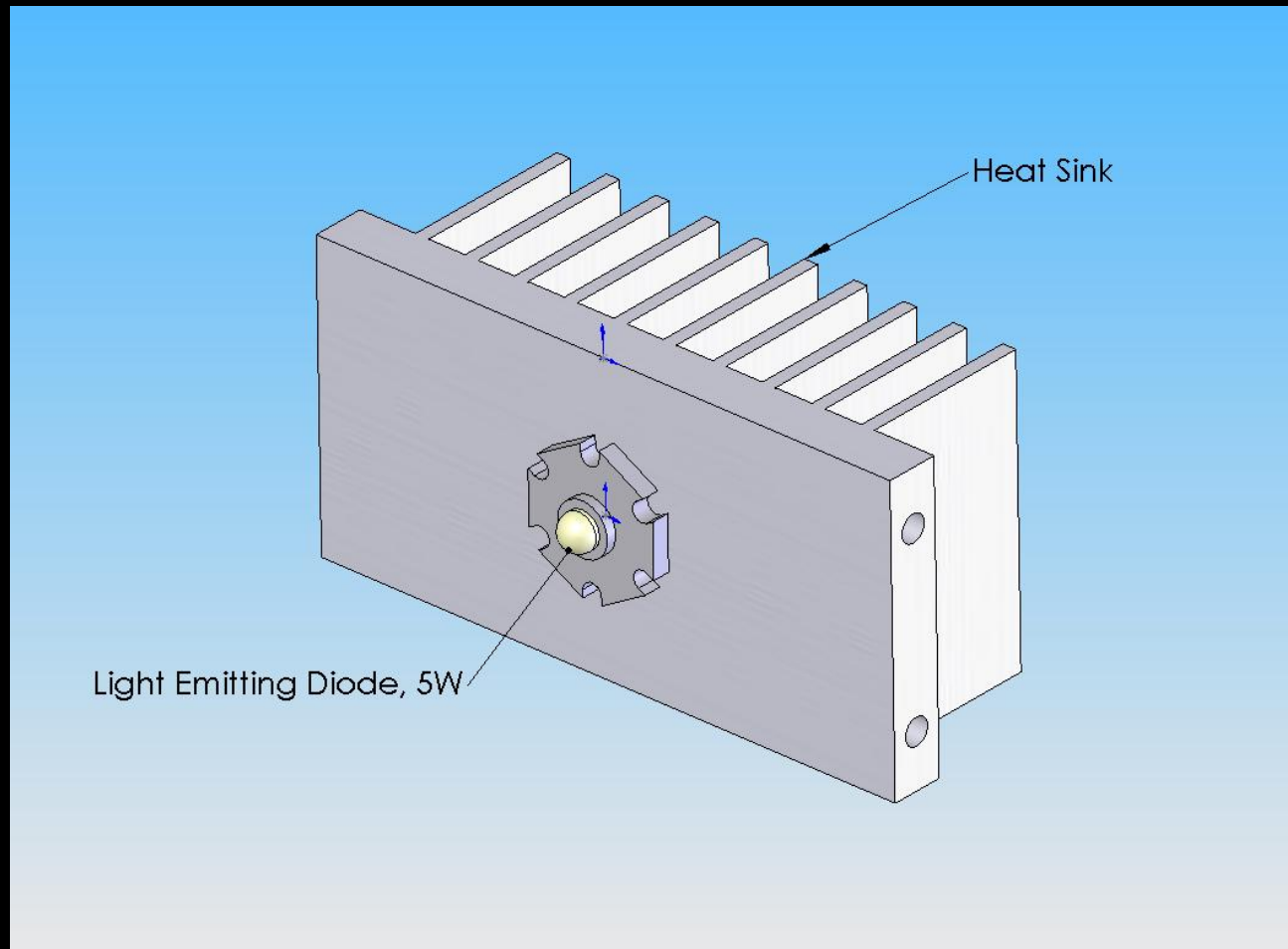
caliya kalaya
teriya

Women's Literacy Class in Bamako, Mali - July 2003

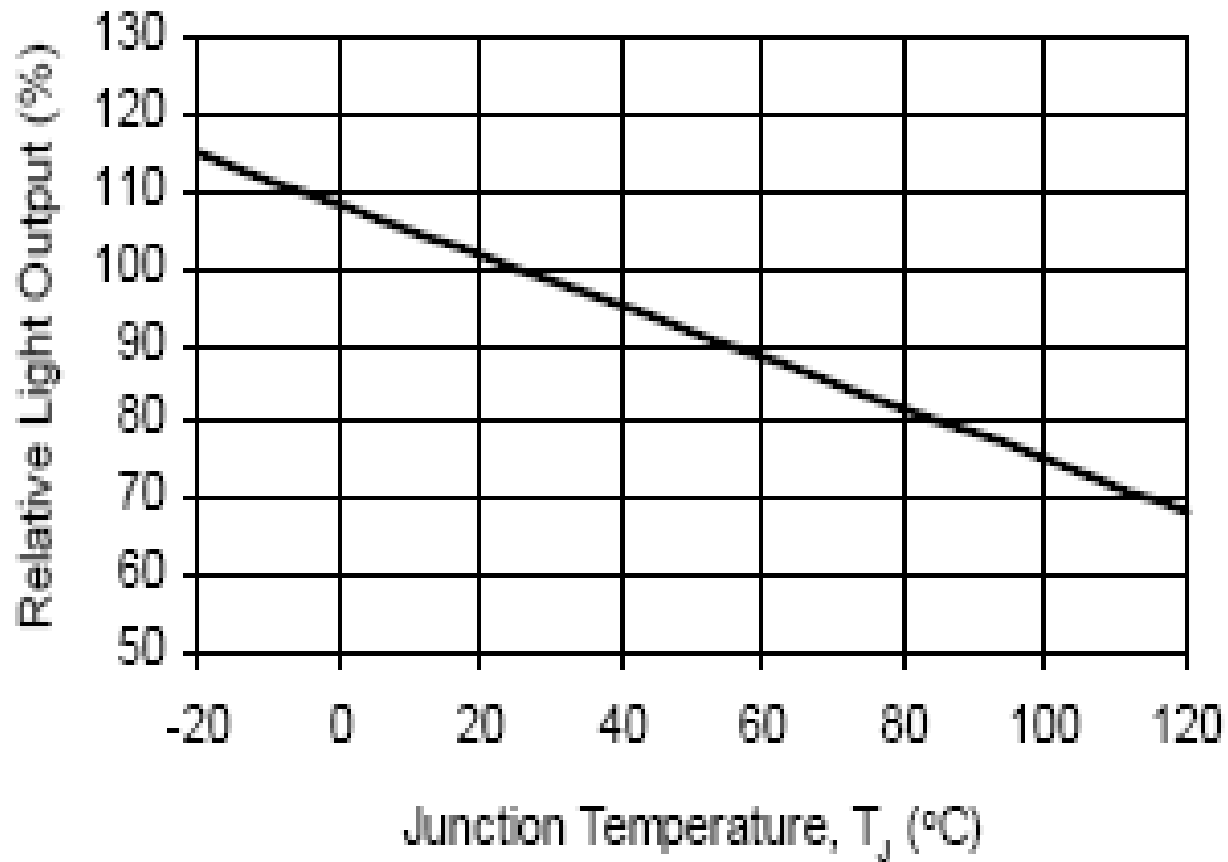
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The competition:
Fisher-Price Viewmaster Projector - all this for: US\$16!

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LED heat is rejected solely thru heat sink.



Light output v. Temperature of Lumileds Luxeon V LED

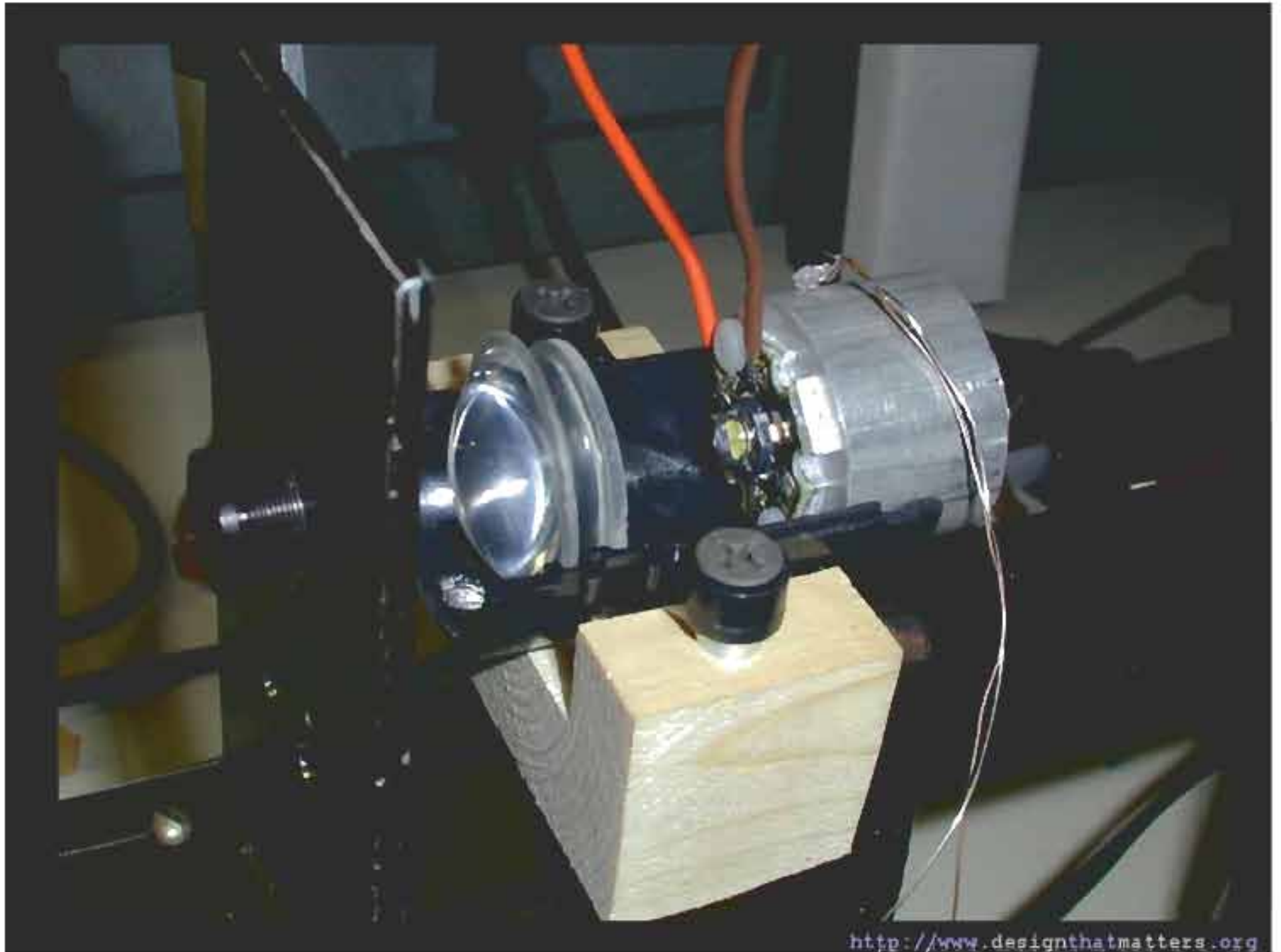
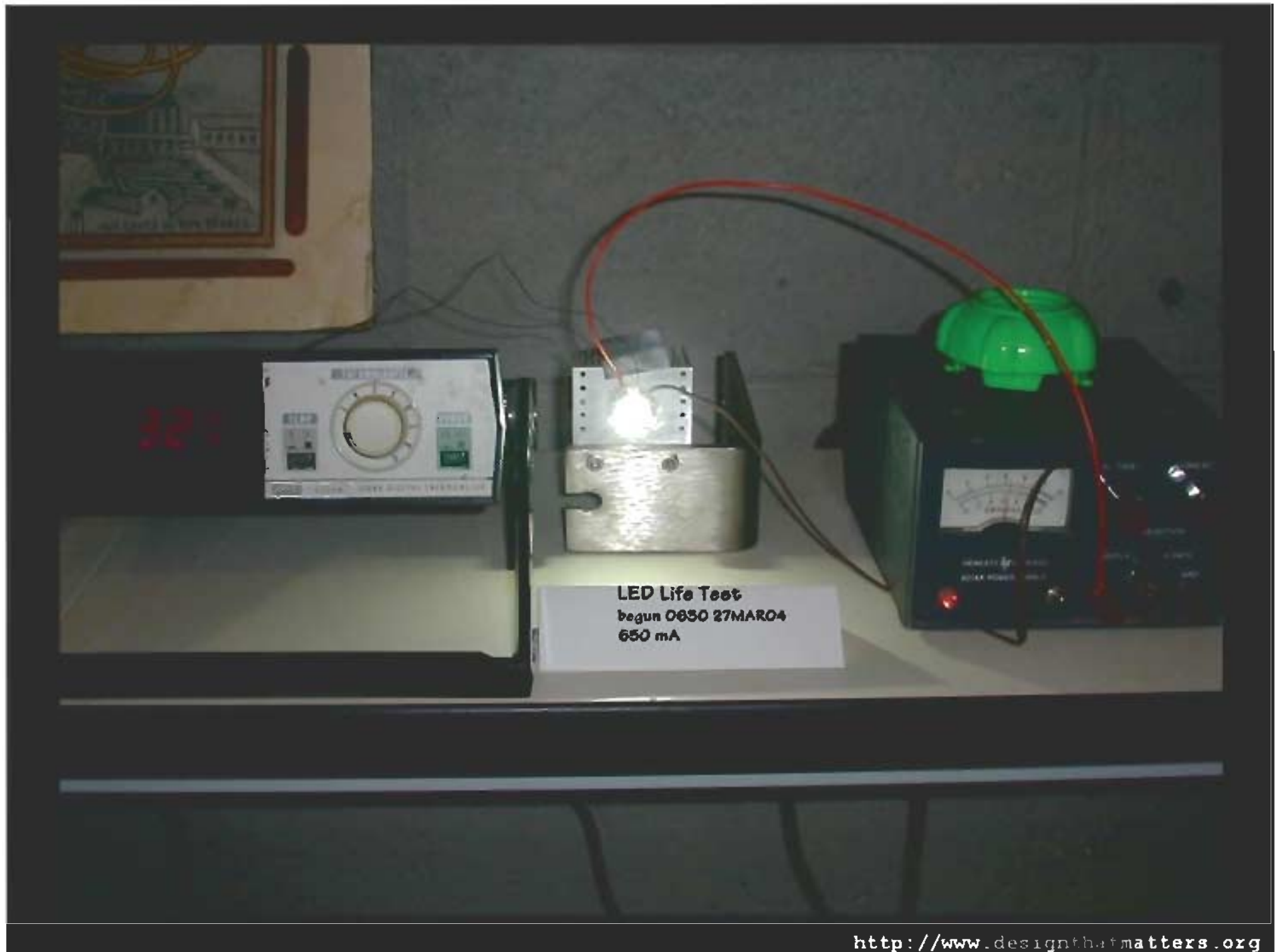
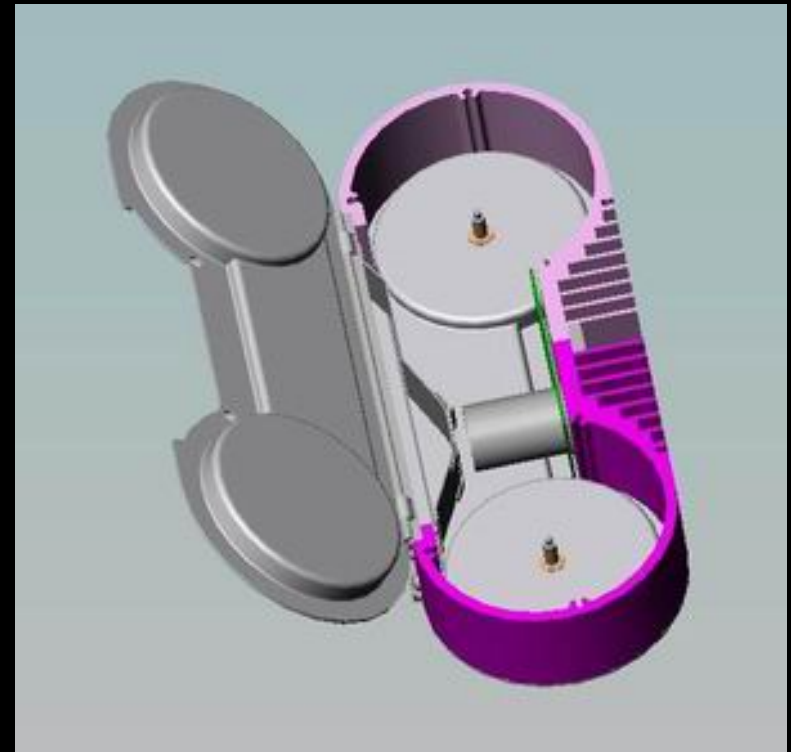
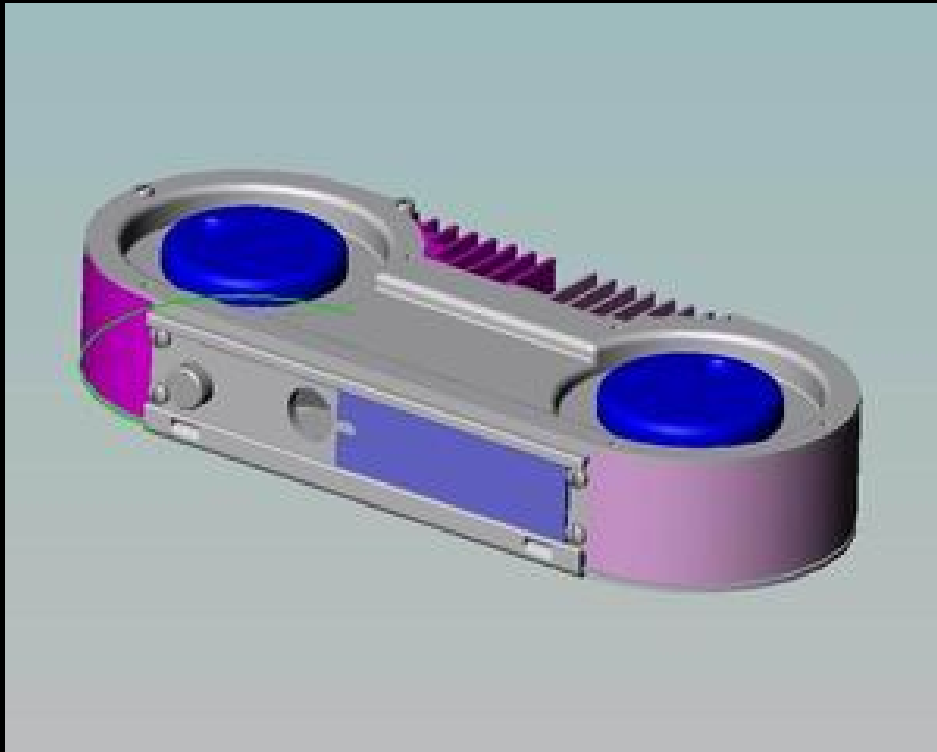


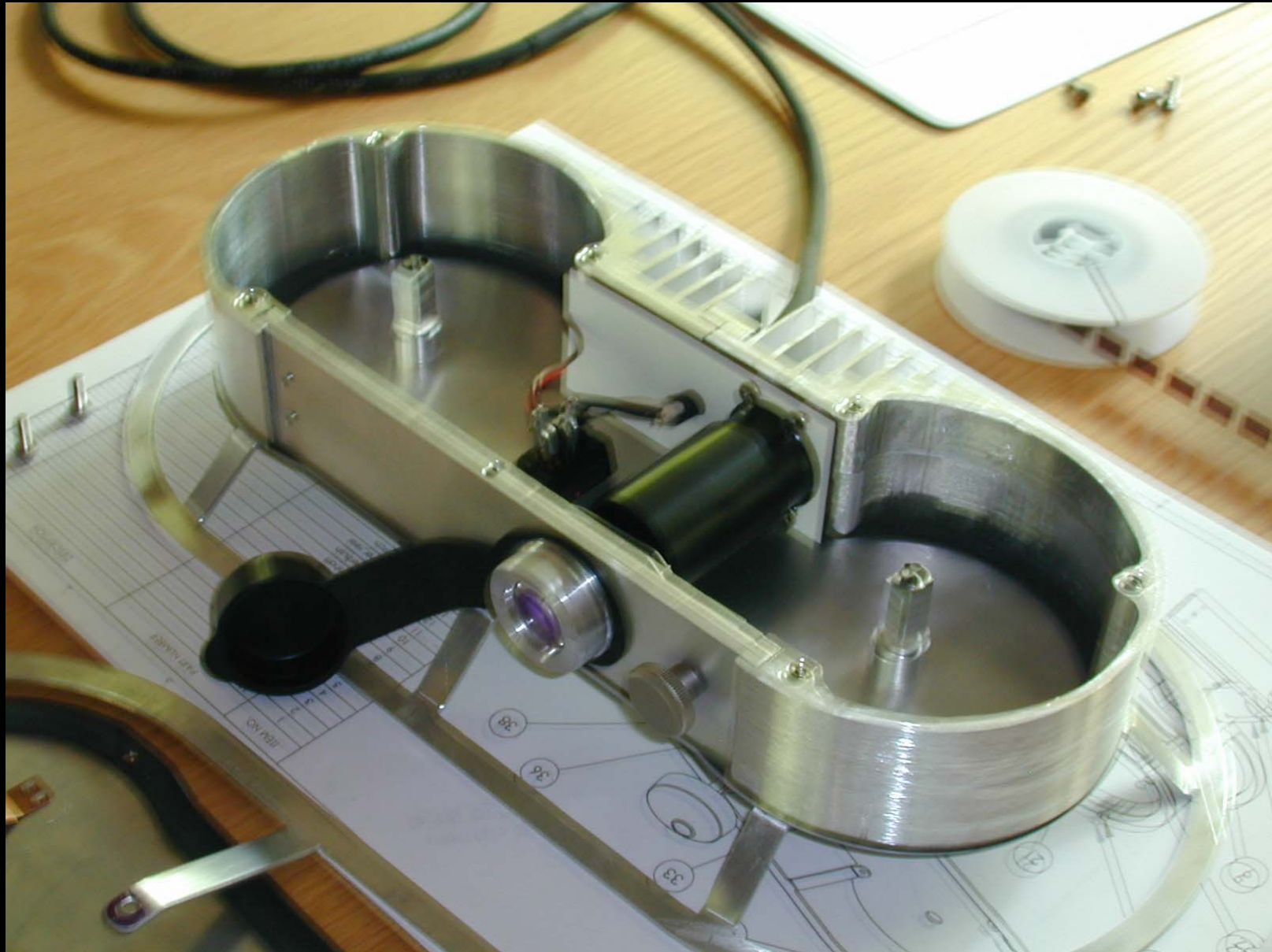
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Fisher-Price project and toy telescope.



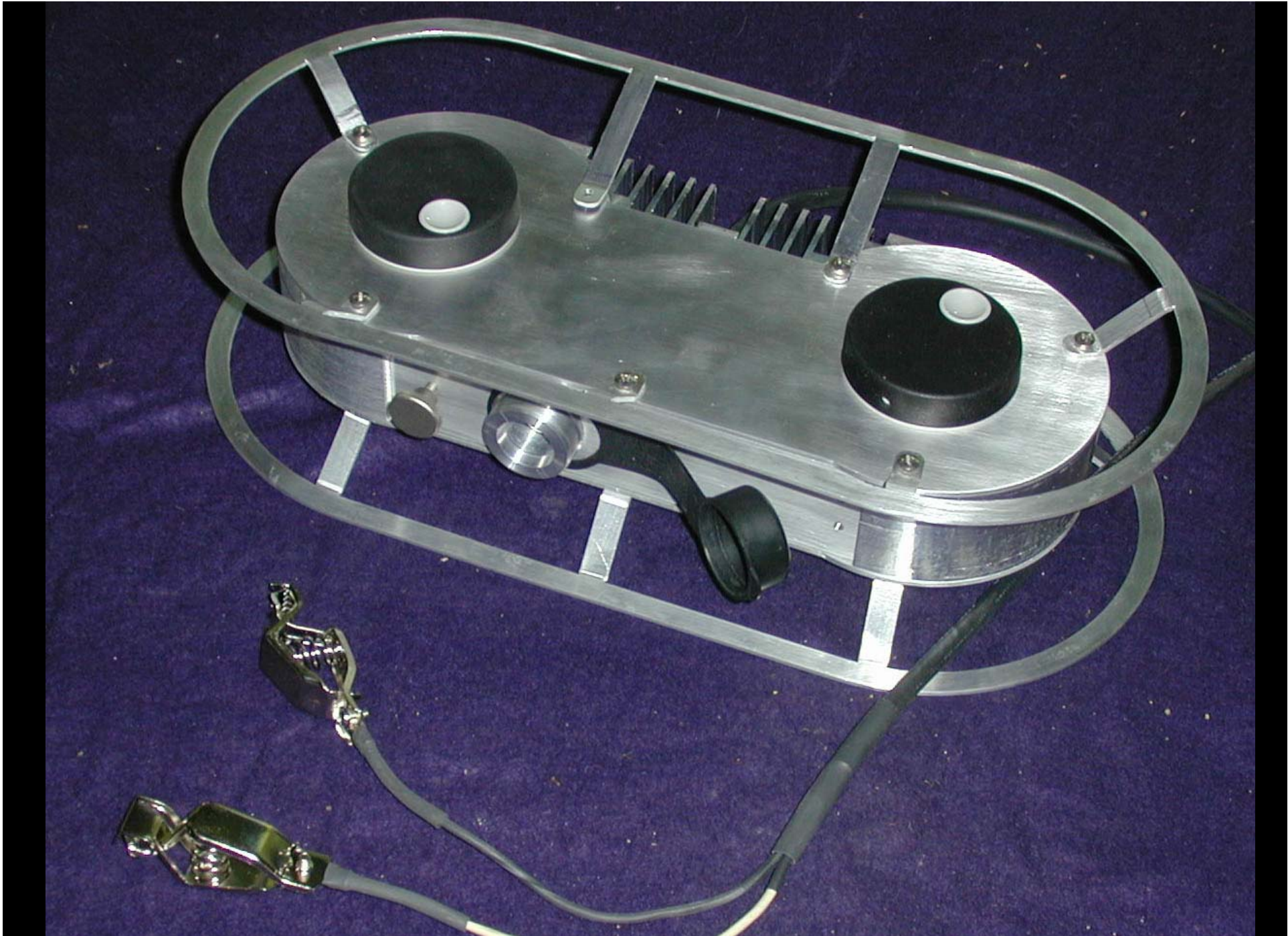
LED Life Test
begun 0650 27MAR04
650 mA

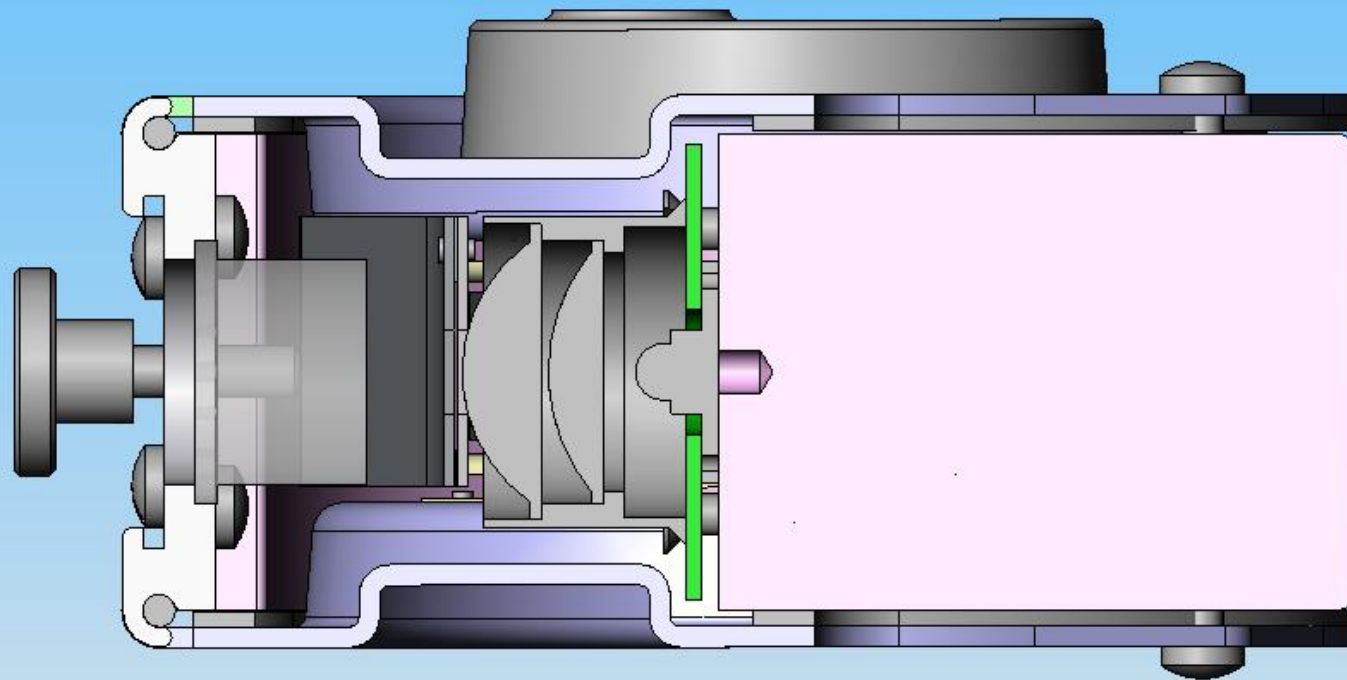


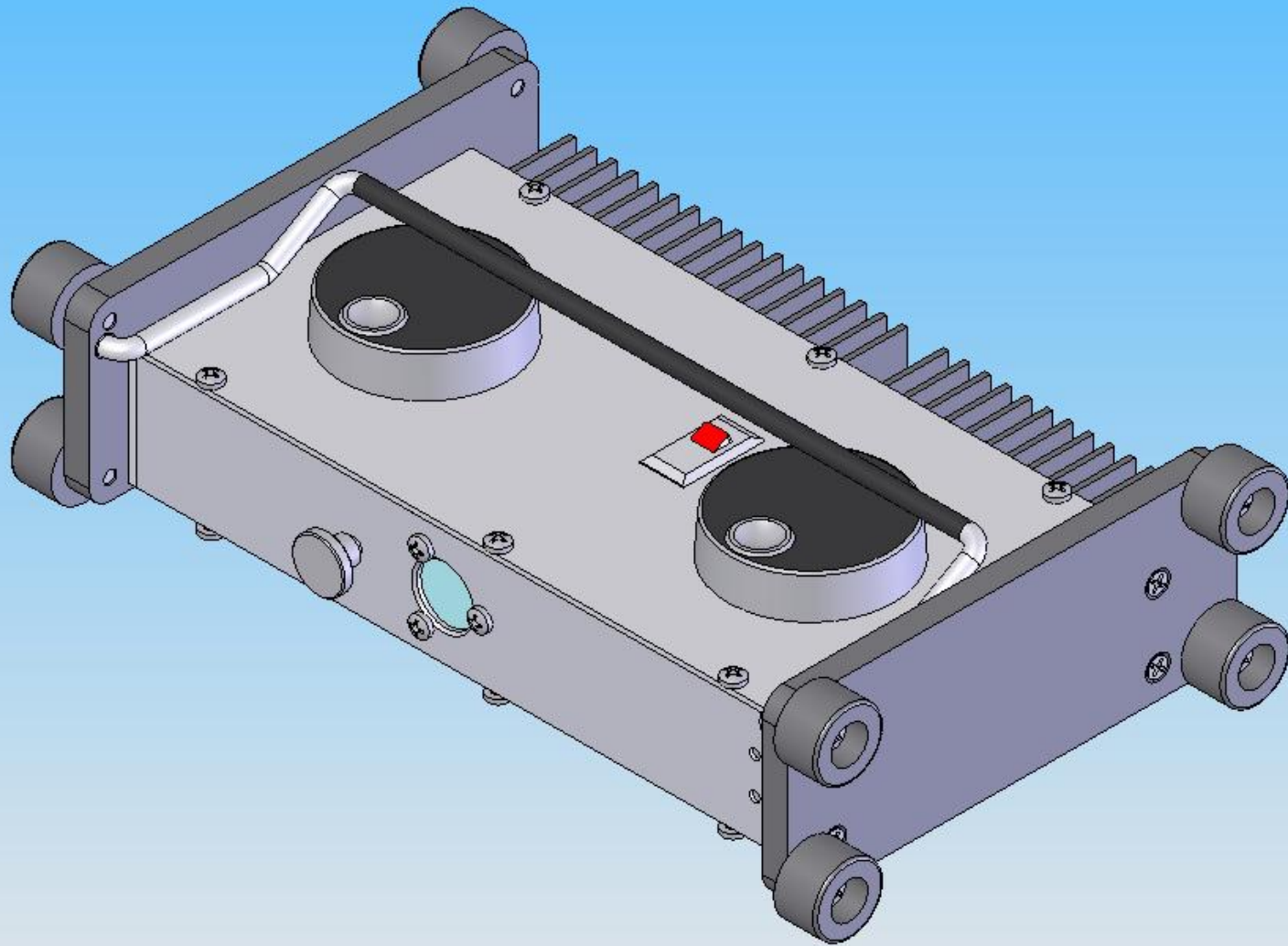
Kinkajou "Gamma" Third-Generation Prototype Solid Model



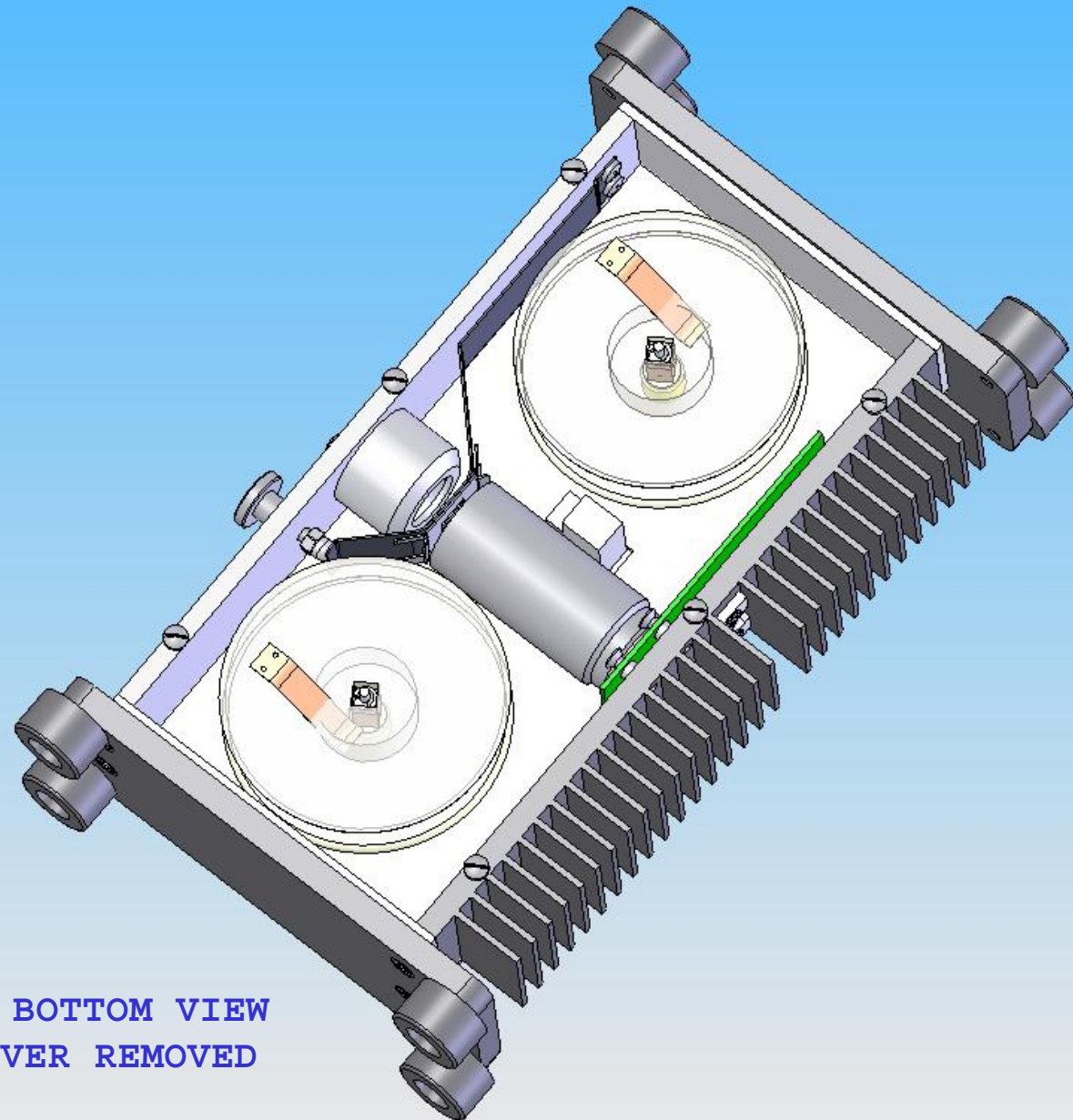
Kinkajou "Gamma" Third-Generation Prototype



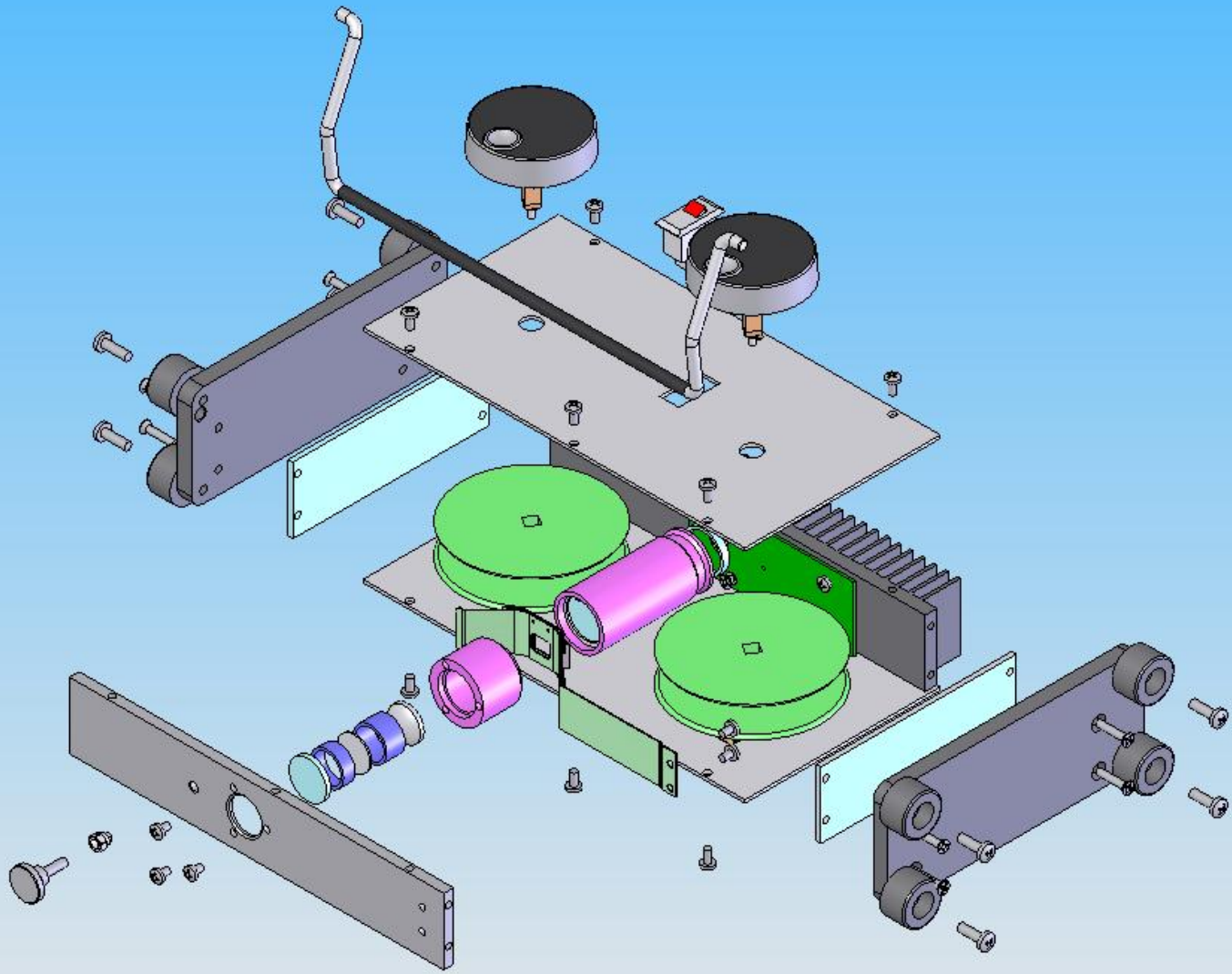


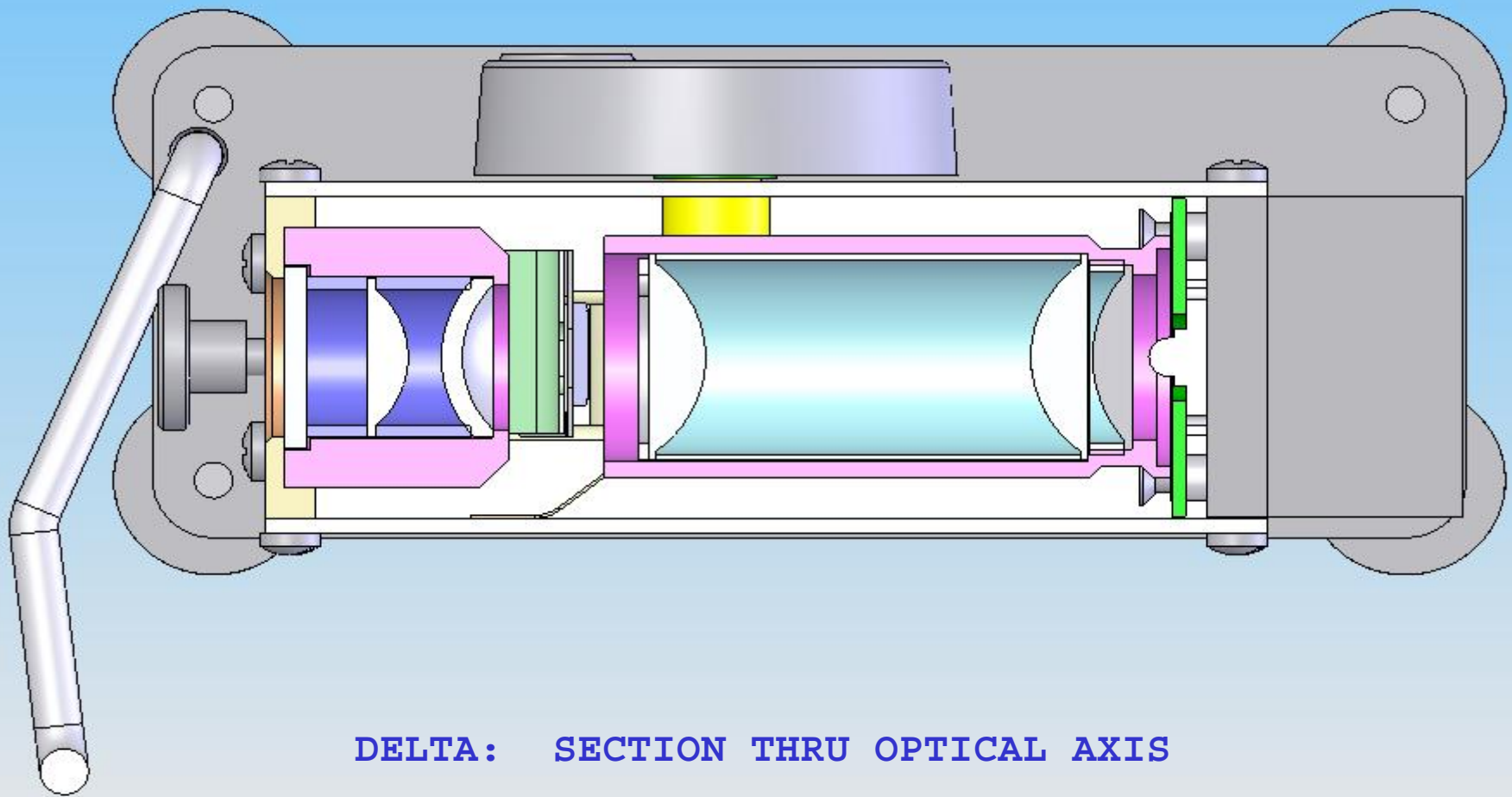


KINKAJOU DELTA PROJECTOR

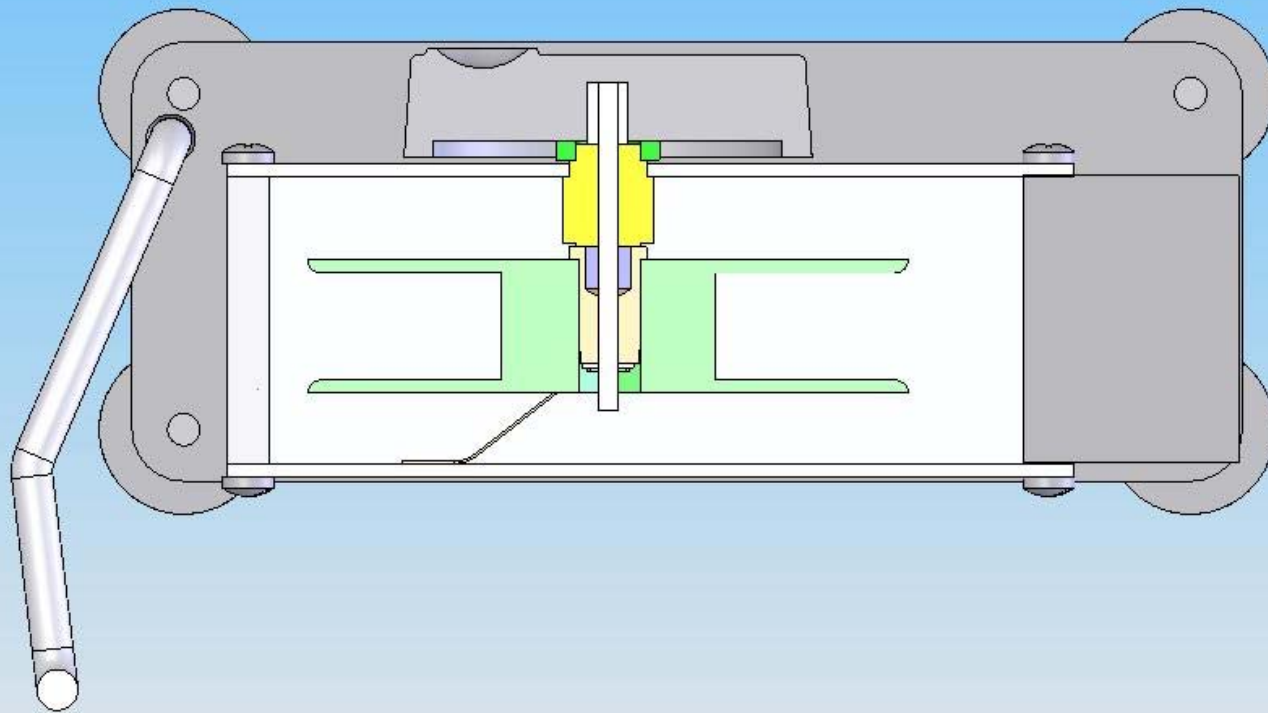


DELTA: BOTTOM VIEW
WITH COVER REMOVED

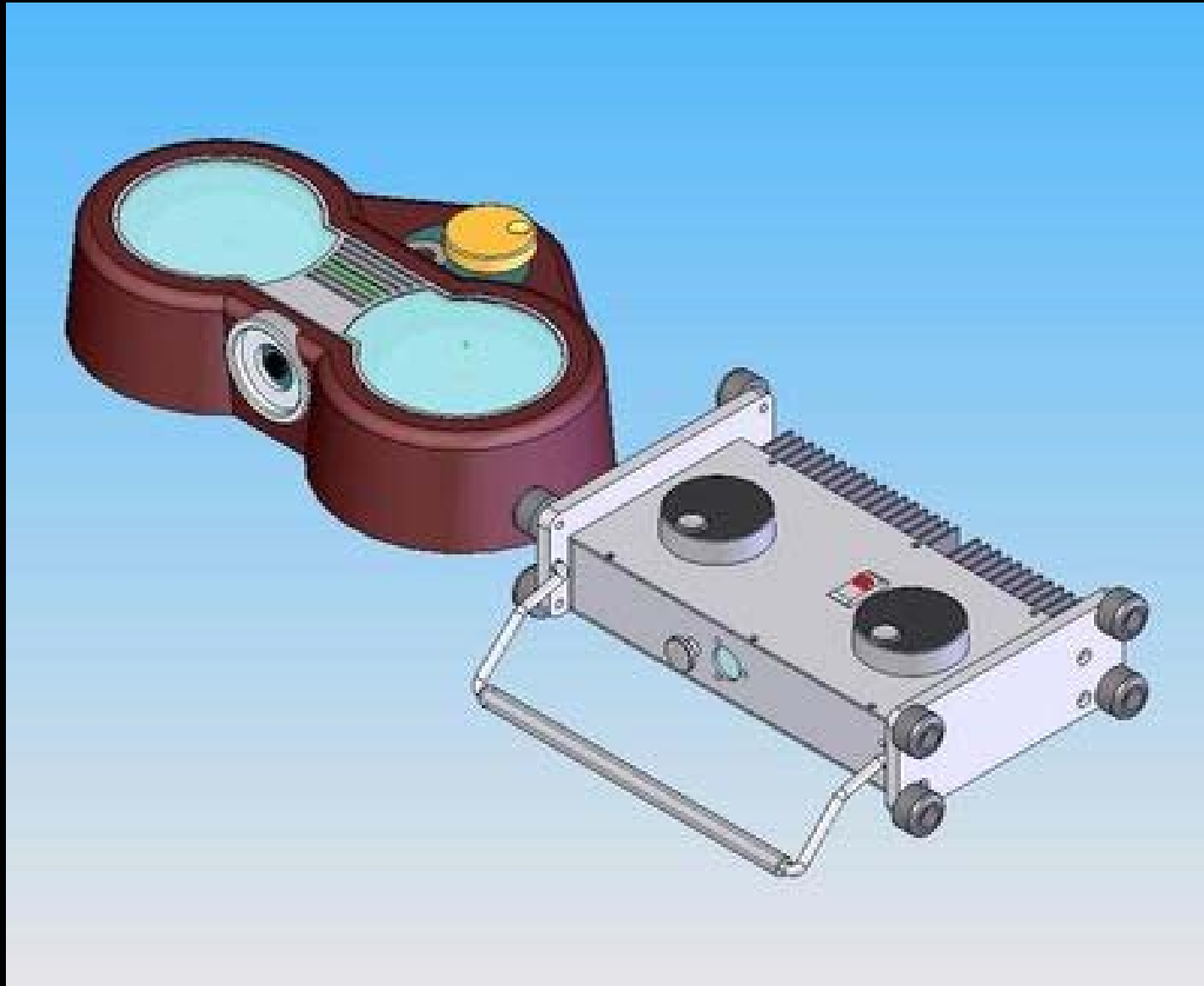




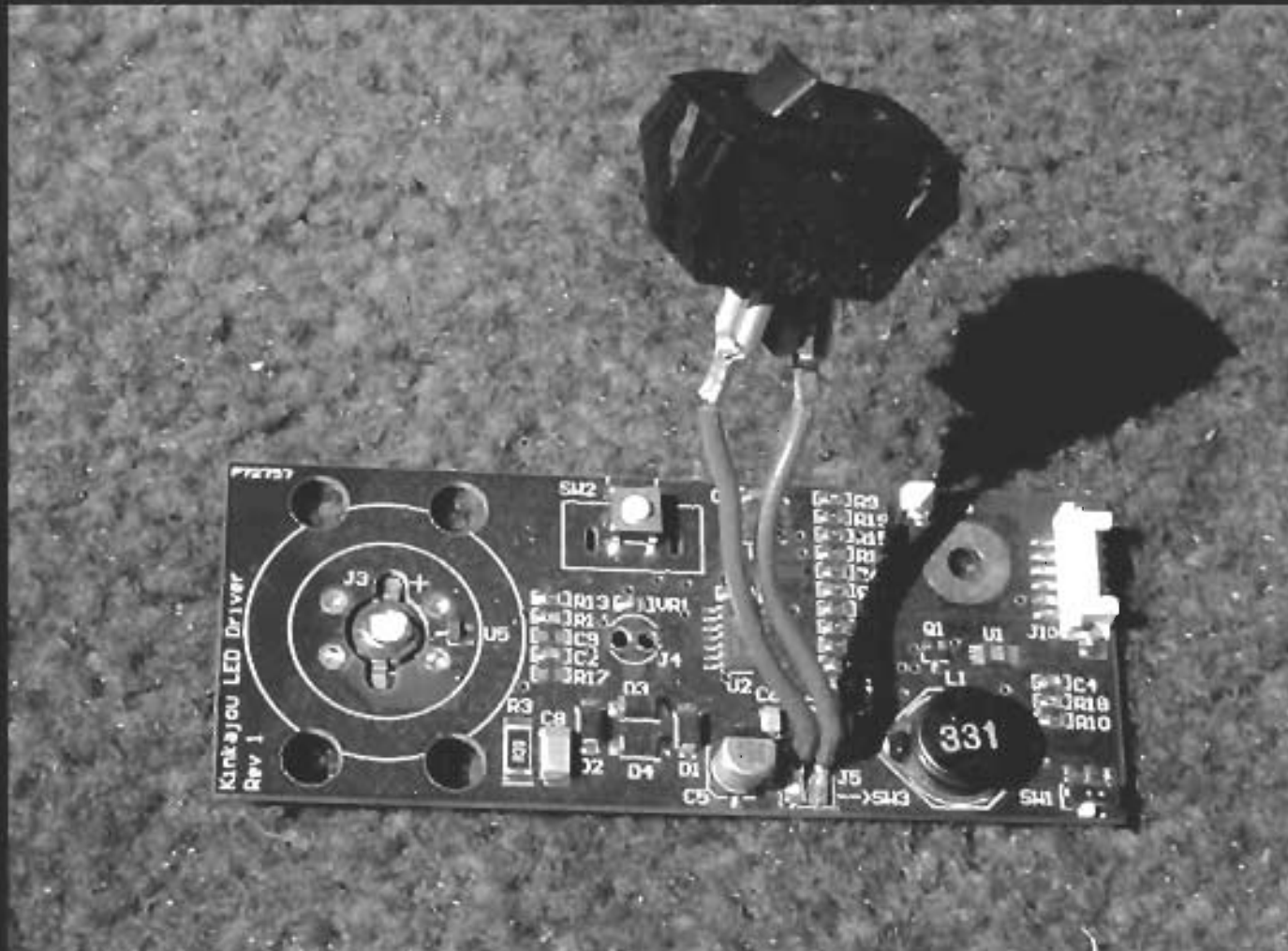
DELTA: SECTION THRU OPTICAL AXIS



DELTA: SECTION THRU REEL AXIS



Kinkajou Beta and Delta Prototypes



LED CURRENT REGULATOR AND DATALOGGER BOARD



Kinkajou "Delta"
With power pack
And solar panel.
45 units shipped to
Mali, November 2004

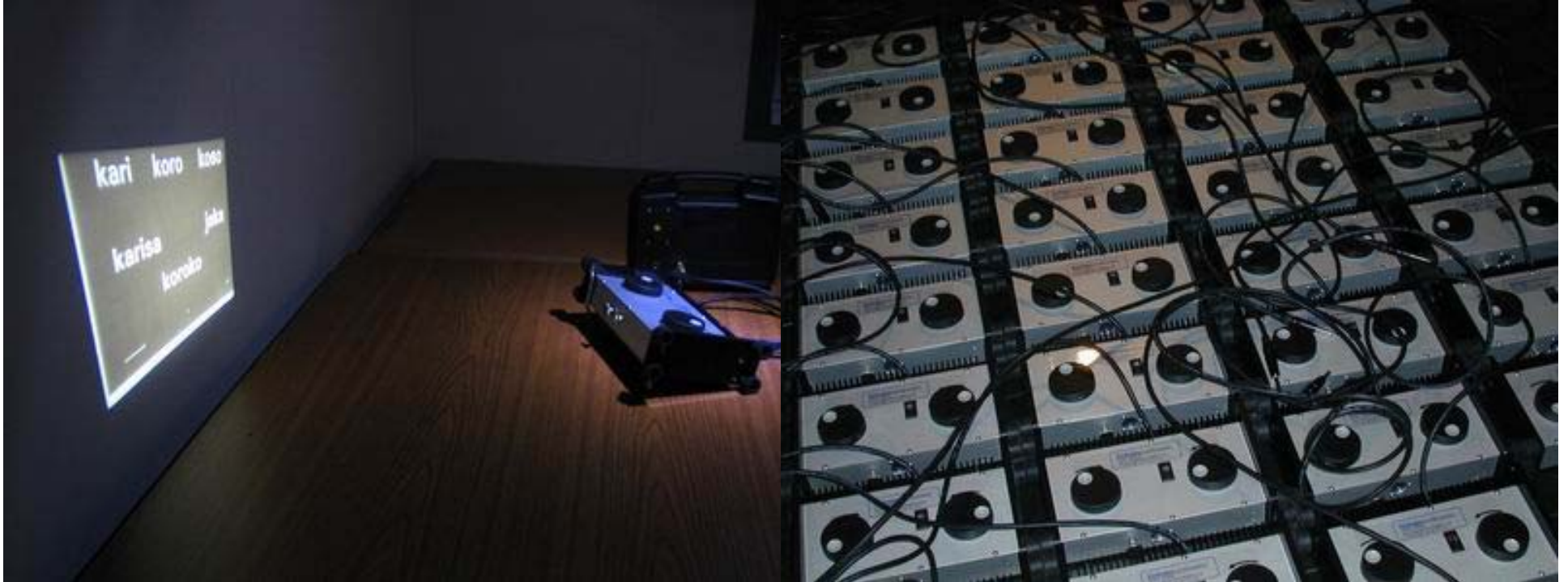


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DtM and World Education team in Mali, Nov 2004

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Kinkajou at Sabalibougou, Mali, Nov 2004
Night-time, outdoor women's literacy class

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"Kinkajuce" human-powered battery charger, Nov 2004
MIT 2.009 Product Engineering Processes

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Kinkajou in Bangladesh -- Product testing with the Center for
Mass Education in Science (CMES), Jan 2005

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Timothy Presterio, Neil Cantor

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