SELCO Foundation
Inventing Green Meeting
Bending Bamboo Lamp
System Scheme
Bamboo Street Light: Base Condition Axo/Elevation

- LED LAMP
- 3D-PRINTED LAMP ADAPTER
- SOLAR PANEL
- 3D-PRINTED SPREADER ARM ADAPTER
- HOSE CLAMP
- 3D-PRINTED BAMBOO ADAPTER
- TENSION MEMBER
- SPREADER ARM
- BATTERY BOX
- 3D-PRINTED BAMBOO ADAPTER
- 3D-PRINTED TIE-OFF ADAPTER
- BATTERY BOX
- SPREADER ARM BASE
Bamboo Street Light: Variants

TRIPOD

BICYCLE

ANCHORED
Useful Knots

Tautline Hitch - Useful for adjusting lines in tension

Two Half-Hitches - Useful for anchoring one end of Line

Line Lok

Rope Cleat
Bending Bamboo Lamp
Construction + Assembly
**KIT OF PARTS**

- 3D-PRINTED LAMP ADAPTER (x1)
- 3D-PRINTED BAMBOO ADAPTER (x2)
- 3D-PRINTED TIE-DOWN (x1)
- 3D-PRINTED SPREADER ARM ADAPTER (x4)
- .75" WOOD SCREW (x8)
- 1/4" x 1" BOLT W/ NUT & WASHERS (x1)
- 1/4" x 3" BOLT W/ NUT & WASHERS (x2)
- SPREADER ARM/ PANEL PLATFORM (x1)
- HOSE CLAMP (x3)

**CHORD AT LENGTHS:**

- 71 (x2)
- 96 (x2)
- 86 (x2)
- 98 (x2)
- 19 (x2)

(Lengths are ideal, excess is to be provided for knotting etc.)
<table>
<thead>
<tr>
<th>Responsible Entity</th>
<th>Product</th>
<th>Category</th>
<th>Item</th>
<th>Tripod Qty</th>
<th>Mobile Qty</th>
<th>Concrete Qty</th>
<th>Total Qty</th>
<th>Cost</th>
<th>Total</th>
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**Notes**
- Bamboo Street Light: Draft Tripod BOM
- 3D Printing: 3D Printing supported by cast metal (iron, recycled steel, aluminum) for mass production or plywood alternative for rural production
- Bamboo Street Lights: Bamboo parts to be produced in India, bamboo forest cultivation
- Bamboo, 4.5m H x 34mm Ø or 28mm Ø or 26mm Ø
- Steel parts: See MSC Galvanizing
- Miscellaneous Hardware: See KVA
- Bamboo: To be cut and dried prior to molding
- 3D Printed parts: To be produced by KVA
- Shipping Costs: based on FedEx international, assuming 30 lbs total. This is a "best case" budget allowance and may be considerably less.
- PLA Spool White, 1Kg: 2
- LED Head: 2
- Steel Spreader Bar Adapter: 10
- Steel Bar: 25
- Electrical Wire, 18GA: 2
- Panel Adaptor: 5
- Battery Pack: 2

**Machining / Tooling**
- Bamboo Street Light: Draft Tripod BOM
- To be purchased by KVA, SELCO to reimburse
- Bamboo, 4.5m H x 34mm Ø or 28mm Ø or 26mm Ø
- Steel parts: See MSC Galvanizing
- Miscellaneous Hardware: See KVA
- 3D Printing supplanted by cast metal (iron, recycled steel, aluminum) for mass production or plywood alternative for rural production

**Materials/Tools for prototype construction and assembly**
- Bamboo: To be cut, cleaned and dried. Chemical rot and insect treatment performed. Quantity provided is a contingency number but should be held due to variations in natural material.
- Areca Leaves: To be cut and dried prior to molding
- Areca Desk & Home Lights: To be used for installation, need not be purchased
- Bamboo, 4.5m H x 34mm Ø or 28mm Ø or 26mm Ø
- Steel parts: See MSC Galvanizing
- Miscellaneous Hardware: See KVA
- 3D Prints to be produced by KVA. Selco to reimburse material costs.

**Shipping Costs**
- 3D Printing: 3D Printing supported by cast metal (iron, recycled steel, aluminum) for mass production or plywood alternative for rural production
- 3D Prints to be purchased by KVA. Selco to reimburse material costs.

**Notes**
- Bamboo Star Light: Draft Tripod BOM
- Responsible Entity: Product Category: Item: Tripod Qty, Mobile Qty, Concrete Qty, Total Qty, Cost, Total
- Machining / Tooling Req'd for future mass production
- Labor Req'd for future mass production
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- Steel parts: See MSC Galvanizing
- Miscellaneous Hardware: See KVA
- 3D Prints to be produced by KVA. Selco to reimburse material costs.
Bending Bamboo Lamp
Construction Appendix
Bamboo Street Light: LED Assembly

LAMP ASSEMBLY EXPLODED AXONOMETRIC

- LED LAMP HEAD
- LAMP ADAPTER
- TENSILE MEMBER
- BAMBOO SHAFT