Green Looms: Pilot Program
The Green loom is a solar powered, motor operated, efficient loom. It is ideal for weavers and organizations working to preserve the handloom craft but are also looking to upgrade their technology and increase production capacity.

The green loom offers:

- Double the production & income as compared to a handloom (upto 30 meters in 10 hours)
- Customization to local weaving practices
- Servicing and maintenance for loom and solar
- Sturdy and long lasting metal body

Solar Specifications:
For 8 hours of operation:
Solar Panel: 200 Wp (24V) x2
Battery: 80 Ah x4
5 year warranty

We hope to partner with weavers and handloom organizations to better understand the complete value chain of a green loom and how it can affect the livelihood of handloom weavers.

By engaging in a close, long term partnership we plan on using the learnings from the pilot to develop a holistic model for green looms including training, backward and forward linkages, long term financing, and technology improvements.

About the Green Loom and Partnering with SELCO Foundation
Nazir ji is a master handloom weaver in Belgaum, Karnataka. A solar loom was installed at his workshop in November 2015. At the time Nazir ji had an order to produce a large number of 1.5 meter towels. In a 8-9 hour shift he was able to make 10-11 towels and a profit of Rs. 200 per day.

In the first 3 months after the installation of the solar loom he was able to make the same number of towels per day on the solar loom. After the third month there was a gradual increase in his rate of production and by the sixth month he was able to reach the optimal rate of 20-21 towels per day. Thereby doubling his productivity and income.

Moreover, the loom also comes with a solar light allowing him to work even past sundown. This gives him more time in the day to do his pre-loom operations such as reeling and warping.
Time frame: the loom should be used full time for a period of 1 year

Expected Support: we would expect weekly logging for the first 2 months and monthly logging thereafter. A typical log would contain data on how long the loom was used each day, how many meters were produced, of what, what were the total expenses and revenues for those articles, any complaints/challenges/changes made etc

Financial commitment: by the end of the pilot, we would like the weaver/organization to make a payment in order to keep the loom for themselves after the pilot. We have not determined the best structure or amount for payment, as we want to understand the actual value of the loom to weaver/organization first.
Patterns of use: We will record data on how weavers use the loom so that we create a product that matches their expectations and practices.

Value: We want to learn how much weavers/organizations value and are willing to pay for the loom so that we know whether we can manufacture and deliver solar looms affordably.

User experience: collect feedback on the product from weavers to improve features and user experience.

Financial: understand the affect on production and income to establish a feasible business model

Training: quantify the amount and frequency of training required to adapt to this loom.

Production: We want to understand the entire value chain (raw material, dyeing, reeling, warping, market linkages) involved in delivering a successful solar loom.

Market: what is the market for eco/green loom articles.
Type of weave: for the initial pilots we are focusing on plain weaves that do not require a dobby or jacquard.

Space: for the loom as well as the solar panels on the roof

Energy shortage: areas that have a power shortage during working hours

Skill: The weavers who will be working on the loom must have some previous experience in handloom weaving
1. How many looms does the workshop have?
2. How many weavers does the workshop have?
3. How many hours does each weaver work on the loom per day?
4. What is their speed? (meters/hour)
5. What is the current market demand and is the centre able to reach it? If no, what improvement in efficiency is ideal?
6. Are there power cuts? If so, how many hours during the working hours?
7. What are the current energy loads (ex. lights, fans, other machines etc) at the centre?
8. Pictures of recent electricity bills if available (2-3 months)? or mention bill amount and units consumed
9. Are the weavers paid according to amount of material weaved if so, how much per meter or piece).
10. Please send a few pictures of the existing looms
11. Are there any special requirements in terms of loom size, length etc please mention those as well.
SELCO Foundation

• Bearing initial capital cost of 1-3 looms (for 1 year)
• Installation, Servicing & Maintenance
• Trouble shooting
• Designing appropriate ownership model
• Monitoring and evaluation
• Replication

(SF support for partner can be further discussed)

Partner

• Identification
• Facilitating Baseline
• Monitoring
• Ensuring utilization
• Providing feedback
• Overall facilitating pilot program and providing inputs for future technical and financial design.

Post one year the project(s) will be reevaluated.