Goals:
The goal of this assignment is to demonstrate that even small technological innovations can have a positive impact on economic development— and more importantly, that your own studies can be directed toward addressing the needs of those living in extreme poverty. In this assignment you will draw from material covered in class as well as your own discipline-specific knowledge and experience to develop a proposal for a new technology designed to address a particular problem facing those living developing world. Moreover, by working in interdisciplinary groups, you can draw inspiration and ideas from one another’s respective strengths, while building important collaborative working skills.

Innovation:
Things to keep in mind as you are brainstorming and then narrowing down your ideas...

- Keep it simple – it does not have to be a super high tech solution
- Focus – Narrow in on a very specific problem – you don’t have to save the world, just address a particular need
- Keep in mind the principles of ‘intermediate technology’ and ‘mundane science’
- Aim for affordability
- Keep in mind cultural context
- Design for ease of use, bearing in mind skill levels and education levels of end-users

Project Teams:
This is a group project, so it is important to stay engaged with your team. Each team should be:

- **Interdisciplinary** – there should be at least one member from a different discipline
- Made up of apx. 4 students
- **Communicative** – we will have time in class for checking in as a group. However, you should also keep in touch outside of class. In addition to meetings when possible, stay connected through email, shared docs, wikis, etc.
- Please feel free to contact me with any concerns regarding group dynamics or participation
Collaborative Partners:

This semester, we have the opportunity to work with partners in the Architecture Graduate Program. These students have traveled to Cotonou, Benin and will be developing projects inspired by their experiences there. We in turn will be using their projects to inspire our own set of proposals. Please see Blackboard for information on Benin and Informal Settlements like Akpakpa-Dodomey

Expectations for the Collaboration:

- Each group will be partnered up with one of the groups from the Architecture Class. Building on the elements they have identified as important, what innovation would be helpful in conjunction with their goals? How will it aid in addressing some of the challenges of development we have identified in class?
- Your proposed innovation should be developed with this particular community in mind.
- Your group will develop an initial idea to present to your partners in Architecture. This will be an informal presentation, but you should go prepared with a single, well thought-out idea. This is also your opportunity to ask important questions about the context on the ground in Benin – questions about things like materials available, local costs, local needs, end-user characteristics, etc.
- You should take into consideration the final version of your partner projects when drafting your proposal.
- In addition to a detailed proposal handed in for our class, you will be “presenting” your proposed innovation in the form of a one-page overview that can be included in a collaborative report with the Architecture program.
- Your projects will be presented back to the Akpakpa-Dodomey community in Cotonou. In developing your proposals, keep in mind the very real possibility that these might be carried out by local actors.

Instructions:

In class we will start with several opportunities to brainstorm the kinds of innovative ideas you might focus on for your project. The next steps are:

1. Form interdisciplinary group around the project area you would like to focus
2. Work collaboratively to develop a proposal for a new innovation aimed at addressing one or more of the challenges of development and poverty.
3. Conduct background research to establish a good understanding of:
   - The context on the ground – the realities of the country, local community, and end users of your innovation
   - Design possibilities – similar models, costs, materials, etc

This project will involve extensive research. I am looking for, at minimum, 20 academic resources. Remember, you are working as a group, so you can divide and conquer the research that needs to go into this. PLEASE NOTE: once I know your topics, I am more than happy to assist in helping you identify places to start for your research, including where and how to access data.

4. Workshop these ideas with your partners, get feedback and ask questions – lots of questions!
5. Submit:
   - Together with your group, develop a draft of your proposal DRAFT DUE Tuesday 11/20
   - Prepare class presentation & one-page overview DUE Tuesday 12/4
   - Edit and submit final version of proposal & one-page summary DUE Monday 12/10

* We will be setting aside time in each class from now on so that you can meet as a group to fine-tune your ideas, share your research and develop the proposal.
Format:
This project will be submitted in the form of a written proposal for the new innovation. In addition to the proposal document, you will also be putting together a 1-page presentation to include in a collaborative report with our partners in Architecture.

Proposal
Altogether, the proposal will be somewhere between 15-20 pages, double-spaced. The exact length is not as important as including all required sections. Keep your document professional and organized – feel free add additional sections or sub-headings as appropriate. You will have a chance to revise the final proposal based on feedback you receive on your drafts.

The proposal should be formatted as follows:

Executive Summary - Your submission should include a 1 page executive summary - This should be a very brief summary of the overall proposal – including what the problem is, what your innovation is, and what kind of impact you expect it to have. You may find this is easiest to write after everything else is completed.

Part 1 – Identification of the Problem - The first part of your proposal should provide a detailed look at the nature of the problem to be addressed. By conducting in-depth research on the problem itself, you will be better prepared to develop a workable solution. The end result should read like an extensive ‘background’ section to a professional proposal. You are making the case that this is an issue that needs to be addressed. It should be concise, to-the-point and include as much information as possible in 7-10 pages. At minimum, you should include sections on the following:
  o Nature of the Problem – what is the problem you are seeking to address? Is it unique to this context or is it a common problem? Who is affected? How are they affected?
  o Progress on addressing the problem – what kinds of solutions have already been tried to address this problem both here and in other contexts? What kind of organizations are involved? (i.e. charities? World Bank? Private companies?)

Part 2 – Proposal - Part 2 will consist of a detailed proposal for the new technology/innovation and an explanation of how it will address the problem outlined in part 1. This part of the project should be divided into the following sections:
  o Description of the technology – this should be as detailed as possible for what is recognized as a very preliminary design. Include images, drawings, schematics as needed.
  o Cost Considerations – In this section, discuss how you would make this technology as affordable as possible
  o Model Technologies – You will also need to include reference to similar or earlier versions of this technology that have been attempted in the past, elsewhere, or in different contexts. Be sure to discuss their deficiencies, lessons learned, etc. (Please note that this section should differ from the subsection of part 1 which considers previous solutions. Your new solution might rely on entirely different models).
  o Impact – how does your group see this product addressing the problem outlined in part 1? Who specifically will it help? What kind of impact will this have in terms of things like livelihoods, local economics, social relationships, health, education, political empowerment, etc?

Works Cited – At the end of the document include a comprehensive, alphabetized list of all sources consulted for your proposal. I do not have a preference as to citation style, but you should be thorough and consistent throughout the proposal. (Be sure all group members are using the same format). In addition to the works cited list, you should also be using parenthetical in-line citations or footnotes in the body of the proposal.
**One-Page Overview**

In addition to the Proposal document, each group must submit a one-page overview if the proposed innovation that can be included in a collaborative publication with Architecture. This one-page overview should build on your executive summary, but also include visuals and other aesthetic elements.

**Presentation & Peer Review:**

On the final day of class we will have each group present their final proposal and engage in peer review of the one-page overviews. Each group should come prepared to:

- Hand out copies of your one-page overview to everyone else in the class.
- Give a brief oral presentation of their proposal (approximately 10 minutes). Visuals are optional – you will have the one-page overviews you can reference.
- Partner with students in other groups to provide critical feedback on your one-page overviews.

NOTE – this is all important feedback you should include in your final draft!

**Assessment:**

Your group’s grades for the project components will be based on the following:

- Quality of research
- Demonstrated understanding of topic
- Clarity and Organization of writing and presentation
- Visual Presentation as appropriate
- Strength of argument for your new innovation