

## Calculating Product Cost

Understanding how much it will cost to make your product is very important but something that is often **overlooked**. If your product costs more to make than people will pay to buy it then you won't make any money! Detailed calculations of product costs can get very complicated and involve many many different inputs, but today we will just think about the three biggest categories:

1. Materials
2. Labor
3. Energy

### Materials:

To figure out the **materials** cost of your product think about the following things:

1. What are all the different things (parts) that go into your product.
2. How much of each "thing" do you need? Some things you can buy as a completed part (like the wheels for the car) and somethings you need to buy as a **raw material** (like the fabric to make a jacket). You may need to do some research to figure out how much things cost.
3. After you list out all the parts and the cost for each part, add them together and you have the **Materials Cost** for your product.

### Labor:

To figure out the **labor** cost of your product think about the following things:

1. Think about the different type of people you need to make your product. Do you need someone with specialized skills like an electrician or a welder or someone with more general skills?
2. What is the hourly wage for each type of person?
3. How many hours will each person need to spend on your product? (Note – This does not need to be a full hour - it could be a fraction of an hour)
4. After you list out who you need to work on your product, how much they make per hour and how many hours they need to work on your product, you can calculate your labor costs.

## Energy:

*(Note – Energy calculations can get complicated. Should you wish to include this in your calculation, we suggest you reach out to a member of the CreositySpace technical team or an engineer in your area who can help with resources and suggestions).*

There are a lot of different ways types of energy expenses to consider when calculating energy costs. For this activity we will only think about energy costs if something needs to be heated up for a long period of time (over 500°F) or cooled down for a long period of time (below 40°F).

1. Determine if your product needs to be kept cold or hot for an extended period of time (more than 1 hour)?
2. Determine what piece of equipment you need to either heat or cool your product.
3. Determine how long your product needs to be at that temperature.
4. Determine how much energy/electricity that piece of equipment uses to run at the target temperature for the target time.
5. Determine your local cost for electricity per hour and then the electricity (or energy) costs for your product.