Mastering Menstruation: Counteracting Period Poverty

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Period-proof underwear is a safe and more sustainable alternative to traditional menstrual products; however, prices range from $20-$40 apiece. In this continuation project, different absorbent materials (silk, flannel, shammy cloth, microfibers, etc) were added to a stretchy cotton base to create the prototype. We constructed eight different designs, making two of each so that, similar to previous experimentation, each design would be hand-washed or machine-washed, ensuring durability throughout either process. To test designs accurately (with advice from a medical professional), 16mL of viscous mock menstrual blood was applied over time with a dropper. After initial testing, designs were washed and then tested again to ensure that quality would not diminish after wash and wear. In this year's experiment, the best prototypes were design three and design one. However, materials cost approximately $2.08 and $3.46, respectively — both more than the previous best design, which was only $1.73. Shammy cloth primarily caused design three's inflated cost. Upon further brainstorming to counter costs, we discovered using water-soluble fusible interfacing could be used to sew scraps together, further reducing waste without compromising integrity. Even without this cost-reducing and sustainable change to our process, the reusability makes it not only better for the environment, but ensures no recurring monthly cost for menstrual products and it is still significantly cheaper than other marketed period underwear. Any of our designs, depending on personal preference with materials and ultimate manufacturing cost, could hopefully solve environmental concerns while aiding affordable accessibility to menstrual products.

Awards Won: