Intro：

内衣清洗是一个在生活中容易被大家轻视的事情。实际上它确实保证个人卫生至关重要的一环。由于隐私部位的不洁，有59%的女性是宫颈炎的受害者，各种阴道炎危害着42%的女性。而皮肤湿疹、前列腺炎症、尿道炎症都与内衣裤清洗不当有关。在日常生活中，我们发现很多人不愿意使用洗衣机讲内衣与正常衣物混在一起清洗，而手洗又很麻烦。因此本项目希望设计一款产品能够帮助用户更方便的清洗内衣内裤。

Underwear washing is one of those things in life that is easily taken lightly. In fact, it is a vital part of ensuring personal hygiene. Due to uncleanliness in private areas, 59% of women are victims of cervicitis, and various vaginitis endangers 32% of women. And skin eczema, prostate inflammation and urethral inflammation are all related to improper underwear cleaning. We found that many people are reluctant to use a washing machine to wash underwear and ordinary clothes together in our daily lives, while washing by hand is troublesome. Therefore, this project hopes to design a product to help users wash their underwear more conveniently.

市场分析：

中国家电市场收益大但是增长率预计会放缓。意味着市场逐渐趋于饱和状态。洗衣机这一细分的品类市场总体平稳。2017年1~6月零售量1789万台，同比增长8.2%。零售额同比增长10.3%累计产量增长3.55%。普通家用洗衣机基本能够涵盖用户的基本需求。因此洗衣机正向着个性化方向而发展。更健康、更小、分类更加细致成为了洗衣机发展的主流趋势。

Market Analysis.

The Chinese home appliance market is gaining prominence, but the growth rate is expected to slow down. Meaning the market is gradually becoming saturated. The demand for the segmented category of washing machines is generally stable—January to June 2017 retail sales volume of 17.89 million units, up 8.2% year-on-year. Retail sales increased by 10.3% Cumulative year-on-year production increased by 3.55%. Ordinary household washing machines can cover the basic needs of users. Therefore washing machines are developing in the direction of personalization. Healthier, smaller, more detailed classification has become the mainstream trend of washing machine development.

用户调研：

我们在洗衣机消费者市场中发现，年龄为18-24的大学生群体在市场中存在空缺。为了挖掘这一群体的用户需求，我们发布了一份调查问卷，并总计回收了107份有效样本。我们发现大学生因为大部分住校，没有独立的洗烘设施，因此对内衣清洗的需求更为强烈。因此我们选定大学生作为目标用户。同时我们发现他们对内衣清洗的需求为，用电量小、体积小、价格便宜。但对清洗功能仅达到杀菌功能即可。

We found a gap in the washing machine consumer market for the college student age group of 18-24. In order to explore the user needs of this group, we released a questionnaire and collected a total of 107 valid samples. We found that most college students live in schools and do not have independent washing and drying facilities, so they have more robust demand for underwear cleaning. Therefore, we selected college students as our target users. At the same time, we found that their demand for lingerie cleaning is small electricity consumption, smaller size and lower price. But the cleaning function can only reach the sterilization function.

POV:How to make it easy for college students to and hygienic washing of underwear.

Finanical analysis

成本分析：

箱体组件--¥65，内桶模块--¥33，电路控制--¥34，电机--¥46，附件--5。总计¥183。

每台成本为基础成本+生产成本+销售成本约为¥183/0.75/0.7 = ¥348.

收入在1000元以上的大学生有1860.1万。认为清洗内衣内裤等贴身衣物麻烦的大学生占比为49.53%。因此用户总数量为921.3万。第一年的销售策略为得到更多的用户反馈，进一步迭代产品同时减少不必要的宣传费用及销售成本。我们选择使用社交网络和线上购物平台进行售卖。

第一年预估销售模型：

五年销售模型：

Financial Analysis

Cost analysis.

Case assembly - ¥65, inner barrel module - ¥33, circuit control - ¥34, motor - ¥46, accessories - 5. Total ¥183.

The cost per unit is the base cost + production cost + sales cost is about ¥183/0.75/0.7 = ¥348.

There are 18.601 million college students who earn more than 1,000 yuan. The percentage of college students who think it is troublesome to wash underwear and other intimate clothing is 49.53%. Therefore the total number of users is 9.213 million. The sales strategy for the first year was to get more user feedback and further iterate the product while reducing unnecessary promotional expenses and sales costs. We chose to use social networks and online shopping platforms to sell.

First-year sales model(Estimated)

Five-year sales model(Estimated)