1. After watching videos on prototype design, I realized that successful product design isn't about direct output. Instead, it follows a three-stage process: sketches, digital prototypes, and physical prototypes. The core principle is to solve problems and validate hypotheses at the lowest possible cost. The process begins with sketches. The video emphasizes that this stage prioritizes speed and quantity over aesthetics. The goal is to translate ideas from mind to paper to validate the process. By cutting out paper interfaces and simulating user actions, logical flaws can be identified instantly without writing code. This made me realize: discover errors on paper at the lowest possible cost. After validating the basic process, the workflow shifts to digital tools. While paper prototypes are static, digital prototypes can demonstrate dynamic interactions. The video recommends using simple linking tools to simulate the application's operational experience. The key at this stage is demonstrating functional logic, not merely visual presentation. The final phase involves actual coding. Coding should only commence once the design is fully finalized, bridging the gap between the app concept and the actual product. The core principle lies in optimizing the steps: starting with broad, rough sketches, gradually focusing on logical digital prototypes, and finally refining the technical implementation. Skipping earlier stages and diving straight into the final phase only leads to wasted time and costly revisions.

2. Recommended viewing: Tom Chi's TED Talk “Rapid Prototyping Google Glass.” This video vividly demonstrates how Google X Lab overcame core interaction challenges for high-tech smart glasses within a single day using low-fidelity handmade models crafted from inexpensive materials like paperclips and clay. This case perfectly illustrates that process trumps tools, powerfully proving prototyping doesn't require expensive software. Tom Chi's philosophy that “Doing is the best kind of thinking” intuitively reveals the decisive role of process optimization and hands-on experimentation in validating design hypotheses.

https://www.youtube.com/watch?v=d5_h1VuwD6g