

AND SO WE REACH THE END OF CHAPTER 2.
WHAT BEGINS AS **SCIENCE FICTION**
BECOMES **TECHNOLOGICAL REALITY**,
ITS IMPLICATIONS NO LESS FANTASTICAL.

TECHNOLOGY IS A **CATALYST** THAT
CONTINUALLY INTERACTS WITH WHO WE ARE
AND INFLUENCES OUR EVOLVING WAY OF LIFE.
DESIGN IS THE **VEHICLE** TO CRAFT THE
DIRECTION AND NUANCE OF THAT EVOLUTION.



CHAPTER 2

DESIGN ETUDE

PART 1: INSIDE-OUT BRAINSTORM

APPLY THE IDEA OF **INSIDE-OUT DESIGN**, AND WORK **BACKWARDS** TO CONCEIVE OF A PHYSICAL EXPRESSIVE TOY. DO THIS BY TAKING ADVANTAGE OF AN **EXISTING EVERYDAY TECHNOLOGY**. WORK RIGOROUSLY WITH THE CONSTRAINTS OF AVAILABLE TECHNOLOGY (NO "IF ONLY WE HAD X") AND CONSIDER AN **AESTHETIC LEAP** THAT **JUSTIFIES** USING THE TECHNOLOGY (SOMETHING YOU COULDN'T DO WITHOUT IT). THE TOY SHOULD AIM TO INVITE THE USER TO BE CREATIVE OR PLAYFULLY EXPRESSIVE IN SOME WAY. SKETCH IDEAS, AND ARTICULATE AS MUCH DETAIL AS POSSIBLE.

PART 2: (OPTIONAL) PROTOTYPE IT!

HOWEVER YOU ARE ABLE, **PROTOTYPE** YOUR DESIGN. **BUILD** THE MINIMAL ESSENTIAL ELEMENTS. THIS IS WHERE THE PROVERBIAL RUBBER MEETS THE ROAD AND WHERE YOU WILL DISCOVER HOW WELL (OR NOT) THE TECHNOLOGIES YOU PLAN TO USE LEND THEMSELVES TO THE TASK. YOU MAY NEED TO **BACKTRACK**, AND PERHAPS EVEN **START OVER** WITH AN ENTIRELY NEW CONCEPT IF YOU GET STUCK. **DO NOT** TRY TO SOLVE HARD TECHNICAL PROBLEMS **UNLESS ABSOLUTELY NECESSARY**. DON'T FIGHT THE TECHNOLOGY. **EMBRACE** ITS STRENGTHS AND LIMITATIONS.

PART 3: ONE MORE THING...

AFTER YOU'VE DESCRIBED YOUR CONCEPT IN AS MUCH DETAIL AS POSSIBLE, THINK OF **ONE FEATURE** TO REALLY **PUSH THIS OVER THE EDGE!** FOR EXAMPLE, THE GLOBE IN **OCARINA** WAS A SIMPLE BUT OVER-THE-TOP DESIGN GESTURE. SIMILARLY, YOU MIGHT THINK OF A SPECIFIC **SOCIAL** FEATURE OR A **COLLABORATIVE** USE CASE FOR YOUR DESIGN. GOOD LUCK AND **HAVE FUN!**

EXAMPLE

PHYSICAL LAPTOP + COMPUTER VISION + VISUALIZATION
= "LAPTOP ACCORDION"*

(SOMEWHERE BETWEEN AWFUL AND AWESOME) SET LAPTOP **SIDEWAYS** ON LAP AND PLAY BY **OPENING** AND CLOSING THE **SCREEN** (MOTION TRACKED BY COMPUTER VISION, USING FRONTSIDE ONBOARD CAMERA). SOUND IS SYNTHESIZED ON LAPTOP; KEYBOARD IS MAPPED TO PITCH. THE SCREEN ITSELF MIGHT VISUALIZE THE PHYSICAL **OPENING** AND **CLOSING** OF THE INSTRUMENT. AN OVER-THE-TOP VERSION: **SCRUB** A VIDEO RECORDING (MAPPED TO SCREEN POSITION) OF SOMEONE'S FACE AS IF THE PERSON IS **TRAPPED** INSIDE THE LAPTOP, AS YOU PLAY IT! LET THE **BAD IDEAS** FLOW, FOR THEY ARE THE **SEEDS** OF GOOD DESIGNS!

**WE ACTUALLY BUILT ONE... COMING IN CHAPTER 5.*