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Cheat Sheet – 18 Steps to Market for Your New Electronic Product

Step #1 – Define your product - Create a document that describes all aspects of the product including product purpose, features, target retail cost, target operating systems, dimensions, etc.

Step #2 – Create a development plan - Never jump into product development without a detailed written plan.

The design of the electronics (steps 3 – 11) will require an electrical engineer specializing in electronics circuit design.

Step #3 – Select the electronic components – This includes selecting the various microchips, displays, connectors, and other electronic devices.

Step #4 – Design the schematic – The engineer will now create a diagram of the electronics design called a schematic that is similar to a blueprint for a house.

Step #5 – Confirm functionality – This may include computer simulation and early stage prototyping methods like breadboarding.

Step #6 – Design the Printed Circuit Board (PCB) layout – The electronics engineer will now create the design for the actual PCB. The PCB is the physical board that holds and connects all of the electronic components.

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Step #7 – Create the Bill of Materials (BOM) – A BOM must be created now that lists the part number, quantity, and package for all of the components.

Step #8 – Get a Second Opinion – Engineers are human and they all make mistakes, so getting a second opinion before prototyping is always a wise move.

Step #9 – Order prototypes – This includes create the printed circuit boards and having all of the components soldered on to the board.

Step #10 – Evaluate, test, and debug, then repeat – Any issues found by your engineer will need to be debugged and fixed in the next prototype iteration.

Step #11 – Program microcontroller – Nearly all modern electronic products include a microcontroller that requires programming.

Steps 12-14 should be performed in parallel with developing the electronics.

Step #12 – Create a 3D computer model of the case – You will need a 3D modeling expert or an industrial designer to create a 3D model of the case for your product.

Step #13 – Order prototypes of case or purchase a 3D printer – There are numerous companies that can take your 3D model and turn it into a real prototype.

Step #14 – Evaluate the case prototypes – Evaluate and change the 3D model as necessary, then repeat steps 11-12 as necessary.

Step #15 – Prep 3D models of case for manufacturing – For manufacturing your case in high volume, injection mold technology will be used.

Step #16 – Find a manufacturer – A manufacturer might be willing to finance some or all of the manufacturing setup costs which can be very expensive.

Step #17 – Order injection molds – Injection molds can be very expensive. Try to find a manufacturer that will agree to finance these costs by amortizing the costs over several production runs.

Step #18 – Ramp up manufacturing volume – You can't go from making 10's of units to millions in one big leap. Start small and work up slowly.