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| **Scope Canvas for Project: \_\_Template\_\_\_** | | | |
| **Cost Magnitude?** | **Staff Magnitude?** | **Duration Magnitude?** hours/days | **Start Date:** |
| --- 10k --- 100k --- 1m --- | --- 5 --- 10 --- 100 --- | --- 10 --- 100 --- 1000 --- | **End Date:** |
| **Goal** (or problem or idea) – “The What” to achieve in your project. Goal = description of a thing or situation / Answer: Why this project?  Goal statement = **SMART?** Specific / Measurable / Assigned / Realistic / Time-bound (mark the goal statement with (M),(S) etc )  Ask: How does the project make the life of \_\_\_\_\_ easier? | | **Objectives** – “The How” to achieve the goal.  Objective = the manner in which something has happened  For each objective: assign % of total budget each; Sum = 100%  Task descriptions: start with “action verb + receiving noun” | |
| **Risks**  What might go wrong with managing the project?  How to respond?  Contingency?  Law/legislation? | **Quality:** What are the characteristics of the main objectives, deliverables and milestones? What can be measured? What are the allowable tolerances?  How does good look like? How do you know you’ve succeeded? What are the customer acceptance criteria? Allowable schedule / budget tolerances?  Are there any ISO/BS standards, industry norms, legislation? Don't wait until the end - what are possible mid-work quality checks? What are the interfaces with the surrounding world? | | **Stakeholders & Communication**  - Team (Names? Skills?), sponsors, customers, users, suppliers, competitors? Who else is affected by the project? -> Rate their ‘power vs influence.’  - Which document/type of communication? How frequent to communicate? |
| **Cost / Budget**  Total working hours x rate?  Material? Consumables?  Investment?  Cash flow out? | **Gain / Revenue**  Payback period? Break-even point? NPV? IRR?  Cash flow in? How do you recover the cost of the project?  Are there intangible benefits? | **Not in Scope:** What is not covered through this project? What are the boundaries of the project? Follow up project?  **Parking Lot:** What are the assumptions? Issues to overcome? Strategic fit? Project competition? What else needs to happen? | **Project Trade-offs** (one per col & row)   |  |  |  |  | | --- | --- | --- | --- | |  | Fixed | Adjust | Accept | | Scope |  | **X** |  | | Schedule | **X** |  |  | | Cost |  |  | **X** |   **Sponsors - Signatures/Names** |

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| **Business Plan Canvas: \_\_\_Template\_\_\_** | | | | |
| **Key Partners / Stakeholders**  - Customers Paying for design - Supplier base developing tools - Sheet metal supplier  Technology Partners - Joint Venture for development of technology with another company or design house / university | **Key Activities**  Project Management - Key Milestones - Activities - Key Decision Points - Contingencies in case of issues  Product Development - Research of Market - Value propositions - Feasibility - Embodiment - Detailed Design - Prototypes - Pre-production - Series Production | **Value Propositions**  What is attractive to customers?    Market Scanning - Three Environments - Market Drivers - Ansoff Matrix = Market vs Product  SWOT Analysis: Where can you add value?  Specific Propositions: Technology - Novelty - Innovation - Cost - Ergonomics - Voice of the Customer  Differentiation: Price - Innovation - New proposition | **Customer Relationships**  Voice of the Customer  - Research  - Who are the key customers  - What do they want / what do they need?  - What are they prepared to pay for?    Industry Influences  Porter's 5 forces model  - Power of suppliers  - Power of Customers  - Threat of new entrants  - Competitors  - Industry rivalry | **Customer Segments**  Strategic Space: Where is the space - what are the dimension - How is the design differentiated |
| **Key Resources**  - Physical - Human - Knowledge | **Channels =** Getting to the market: Direct to customer - Through Distribution - Through Retailers - Online - Technology License |
| **Cost Structure**  Costs of getting to the market - Distribution margin based on channels to market - material + Labour + Overhead + Profit = ex works cost - ex works cost + distribution costs + distribution margin = Selling price  Bill of Material - Material costs affected by -- Volume of manufacture -- Opportunities for outsourcing vs Build in house -- Batch sizes | | **Revenue Streams**  Selling - Channel selling prices - Segment prices - territory / country prices - Volume prices - Discounts | | |

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| **Scope Canvas: Portable Loudspeaker Project** | | | |
| **Goal**  To develop a **functional prototype** of a pluggable, movable, one-part house music gadget.  To play selected music on a low cost pluggable device in any room of the house. | Proposed solution = **SMART**  **Specific** = One part plug in device with On-off & vol +- buttons, off-site programmable // **Measurable** = to produce drawings, part list, assembly description and program code  Agreed = with sponsors // **Realistic** = only standard technology // **Time-bound** = 1200 working hours & 6 staff | **Objectives**  Major activities during the project are market research, soft / hardware development and testing.  Main deliverables / milestones to achieve the goal are to provide a market analysis, power supply, loudspeaker, case & buttons, to program the Pi, create a prototype and project management. | |
| **Project Trade-offs**   |  |  |  |  | | --- | --- | --- | --- | |  | Fixed | Adjust | Accept | | Scope |  | **x** |  | | Schedule | **x** |  |  | | Cost |  |  | **x** |   **Sponsor(s) Signature(s)** | **Planning:**  Major activities are market research (10%), Raspberry Pi programming (30%), hardware development such as case design, purchase parts like power supply, buttons & loudspeaker integration (30%), prototyping and testing (20%) and project management and administration (10%).  The project will take place between Oct and March. 6 part time members of staff (one day per week) are involved. Weekly meetings will be held.  Planning: Gantt chart – main activities - resources - dates - resource loading - alternative options - monitoring? Success criteria / quantitative measures? How to measure? = Schedule -> should be: “mildly aggressive”? | | **Stakeholders & Communication**  Major stakeholders are Lloyds Bank as the initial sponsor, Amazon as the main distribution channel and Rapid Electronics as the potential main supplier of parts.  Team meetings take place weekly; action points are distributed within 24h. |
| **Cost – Budget**  Major resources such as PCs/software are available at no cost to the project.  Expected hours of work are 1200 @ £15 per hour = £18.000  Expected project expenditures are £4.500 incl a new 3D printer (£3.000).  Product target cost: £50 | **Gain – Revenue Plan**  No income is generated until 12 month (including another six month project to develop a manufacturing prototype).  Product target sales price: £100  Expected sales cycle: 1 item per hour  = 1 x 24 x 365 = 8.760  -> Turnover: £876.000 pa  -> Material cost: £438.000 pa | **Risks**  Other competitors enter the market within the next 12 months.  Major staff leaving due to low cash flow within the next 12 months.  Unforeseen major operational investment required.Material costs higher than £50.  Functional prototype not working as anticipated. | **Not in Scope:** A production ready prototype will be produced during the next phase of the development cycle.  **Parking Lot**  How to finance phase two of the project? |

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| **Business Plan Canvas: Portable Loudspeaker Project** | | | | |
| **Key Partners / Stakeholders**  Project Team  Sponsors / Tutors  Component suppliers  Manufacturing partner - case  Assembly partner  Logistics / distribution- Amazon / Ebay  Customers - Early testers?  Prototype 2: Radio stations? And other streaming partners | **Key Activities**  Major activities are market research (10%), Raspberry Pi programming (30%), hardware development such as case design, purchase parts like power supply, buttons & loudspeaker integration (30%), prototyping and testing (20%) and project management and administration (10%). | **Value Propositions**  Differentiation -> New proposition / novel product  A gadget that connects to a playlist from any point (with internet access).  No equipment being in the way - e.g. wires or boxes.  PLS offers music enjoyment though a compact device.  Prototype 2: Music coordinated for the entire house/site. | **Customer Relationships**  Hardware: repair service  Software: website to exchange product use cases | **Customer Segments**  Single home user  Multi device home user  Professional users - shops / hotels  Professional partners - radio stations to configure the device for their use (prototype 2) |
| **Key Resources**  Team of six engineers / one day per week / 22 weeks  Weekly meetings with sponsors | **Channels**  Sales through Amazon / Ebay / website  Prototype 2: Sales through Radio stations? |
| **Cost Structure**  Prototype Material cost: Pi £20 + Case £10 + Loudspeaker £10 + power supply £5 + buttons £5 = £50 for first prototype  Technology - assembly target:  - 8 \* 60 min = 480 min working time per day  - 60 per day ~ 6 minutes per item  - One assembly worker £30k per annum?  Technology - operations: click and glue connections + packing = Minor investment | | **Revenue Streams**  Aim: 1 sale per hour on Amazon / Ebay = 24 per day x 365  = 8760 per annum @ £100 per item  Other income streams:   * Direct website sales * Distributors? Reduced margin vs volume? * White labelled version through radio stations (prototype 2) or other streaming partners | | |