WIKIHOUSE
Development Goals

Key project milestones on the way to a scalable, financially-sustainable, global construction commons.

WikiHouse is a process which vertically integrates three core aspects: Hardware, design software and a web platform for sharing and collaboration through the commons. Each of these has a sequence of practical goals associated with them from the 'next steps' to the end goals. We are developing WikiHouse as a set of open tools that anyone can use for free, but it still has a cost. Please click **here** to support the project, or if you are a community member, and have the skills to achieve some these goals and would also like to supported to work on them, please get in touch with the core team.

	HARDWARE	DESIGN SOFTWARE	PLATFORM
Current *Proof of concept*	**Structures** Several completed and developed proof-of-concept structural prototypes developing a global>local construction system which is fast, economical and easy. **Reached** Development of whole house system design and costings. Early prototypes on products eg Windows. **Live**	**Prototype plugin** SketchUp plugin with key capability to export cutting files from 3D models, but incomplete functionality. **Reached**	**Website** Online library for community file sharing and Google groups for discussion. Basic donation mechanism and introductory video. Basic crowdfunding goals shared. **Reached** Registration of trademark plus non-profit company limited by guarantee. **Live**
Generation 1 *Minimum viable product*	**Full house** The first small complete house, with manufacturing files, instructions and costings shared openly so others can easily replicate it. Includes windows and core furniture eg Kitchen. **Build cost** £40k **R&D** £200k **Cumulative** £240k	**Plugin** Completing the full SketchUp plugin, laying out parts onto sheets, naming them and generating output dxf. Possible offsets. **Cost** £12k **Cumulative** £12k	**Website+** An improved community sharing site, with collaboration and easy to use documentation tools making it easy to download and document designs - a piece of infrastructure for open source hardware and democratised production. **Website dev** £10k **Cumulative** £10k
Generation 2 *Development*	**Big house** The first large completed house (two storey), with full house system and development process / costings shared. All products either open source or widely available & variable. High energy / wellbeing performance benchmarks (eg Passivhaus). Easy for anyone to cheaply replicate. **Build cost** £50k **R&D** £60k	**Super plugin** Improved plugin functionality: exports efficiently nested cutting files, allowance for differing offsets, routing depths and materials. Possibly also key parallel products such as windows and skin. Exports via cloud to gcode (CNC format). **Dev** £50k **Cumulative** £62k	**WikiHouse Hub** A 'wikipedia for construction' with live project threads, easy to use open hardware documentation (from hardware to legal/liability), project mapping, and easy to use collaboration space. **Dev/Support** £70k **Cumulative** £80k

Cumulative Cost £350k

Generation 3 *Deployment / Disruption*	**Five projects** The first five development projects completed, fully shared and documented projects in five different economies / climates / delivery models designed with partners (eg NGOs). Five useable, verified housing systems to be 'forked' by people in different parts of the world, and five resilient communities established, empowered to grow/change their houses/neighbourhoods. More open / recyclable materials supply chain. **Support/R&D** £100k **Cumulative** £450k	**Parametric** The first basic in-browser parametric design tool for house design. User inputs: location, site data, design etc. Automated dxf (or other manufacturing format) cutting files. Bridges into other software. **Dev** £180k **Cumulative** £242k	**WikiHouse Infrastructure** Integration of existing collaboration and reporting tools and sharing platform with a parametric, in-browser design tool which makes it possible for anyone to simply design, structurally check and specify a project. Data handling. **Dev/support** £60k **Cumulative** £140k
Generation 4 *Scale*	**Ten projects** Ten projects indirectly supported using different development models and technologies (including self-build in west, community development in emerging economies, post-earthquake development models). Expanded technologies range of products such as windows, ventilation, off-grid sanitation, water, electricity, furniture etc plus shared development models and costings. **Support/R&D** £80k **Cumulative** £530k	**Super parametric** Developed parametric design tool with output straight to G-code, and basic automated BIM data such as specification /instructions / costings / engineering / neighbourhood design. Integrated with Library. **Dev** £100k **Cumulative** £342k	

Total to this stage
£1,012,000

Generation 5 *End goal: Sustainable commons*	**Sustainable, resilient, healthy self-build for all** Continuously-expanding breadth and development of open hardware products. Scaleable without increased overheads and regularly used by designers, makers and NGOs. An ever-expanding range of low-cost, high-performance technologies and solutions permanently in the	**The democratisation of production** Super-easy- to-use everyday design and making tools. Easy to plug-in APIs, allowing third parties to write plugins and extra functions. Integration of other systems / datasets into the tool, such as planning, neighbourhood design, funding, legal, engineering,	**Wikipedia for stuff** A fully-staffed 'wikipedia for stuff'. An organisation and digital platform that provides: GitHub-style open hardware versioning architecture, collaboration tools supporting an open /derivative micro-economy of designers, makers and projects around the world . Organisational support to

	commons accessible to a the greatest possible proportion of the world's population.	site and location data.	respond to crises / new challenges at large volumes of use. In-built donations / tipping mechanism to support leadership structure, legal checking, locked-in open governance. Autonomous from original founders.

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