

INSTITUTO SUPERIOR TÉCNICO

HACKERSCHOOL

Initial Sprint Report
Free Libre Open Source 3D Printer

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1 Introduction and Motivation

2 Theoretical references for the Project

3 Project specifics

3.1 Project insertion on the Hacker subject

The project focuses on three main Hacking Schools:

3D Modeling and printing:

Hardware hacking:

Programming:

3.2 Task planning and management

3.3 Task planning, partial and total ETC

Task #	Task De- scription	Main ap- pointed maker(s)	Task De- pendencies	Specific needed materials	ETC	% of com- pletion to date
0	Inventory the printer's corpse, take note of missing pieces	Full Team	N/A	N/A	1 day	100 %
1	Simple electrical repairs: x-motor junction and re-do isolation	João and Nuno	0	Soldering Kit	2-3 days	30%
2	Model broken 3D Pieces	Manuel and Nuno	1	1-2 weeks	None	0 %
3	Print 3D pieces	Manuel	2	1 week	PLA, working 3D printer	0%

4	Simple Mechanical repairs: Replace squared bearings, clean and re-lube axis	Full Team	0	Bearings, WD-40	1 day	0%
5	Flash Marlin firmware into Keyes board (test phase)	Full Team	0	None	1 day	0 %
6	Advanced electrical repairs: Repair Power Supply module, possible Keyes board repairs	João	1, 7	Soldering kit, other specific electrical components	1-3 weeks	0 %
7	Mod Marlin firmware, flash moded Marlin	João e Manuel	7, 6	N/A	1-3 weeks	0%
8	Setup Octoprint environment					0%
9	Assemble Printer					0%

Total ETC: Around one semester

3.3.1 Materials

Material Description	In Storage? / Available	Cost	References
Soldering Kit	Yes	N/A	N/A
General mechanical Components(screws, bearings, lube)	N/A	N/A	N/A
Printer PLA	Yes	N/A	N/A

Other materials will be request along the project.