EasyTAZ Mini – Product Development Cycle – v3.1_Draft

06-09	06-16	06-23	06-30	07-07	07-14	07-21	07-28	08-04	08-11	08-18	08-25	09-01	09-08	09-15	09-22	09-29	10-06	10-13	10-20	10-27	11-03	11-10	11-17	11-24	12-01

92 .... *49* .... *20* *0*

EVT2 - Engineering Validation Test –- Begonia –-	DVT - Design Verification Test –- Camellia –-	SAT–Design Maturity / Ship Approval Test –Daffodil-	Production Commences & Inventory Buildup	Product Announcement & Sales start	Cyber Monday
Design **Validation** – **Functionally** focused	**Verification** – Reliability focused – RBF	**Qual** – MFG/ Quality	**Ramp**	*Sell, Sell, Sell!*	
11-15 machines	*25 machines*	*30-50 machines*	*120-140 machines*	*30-40/wk*	

Milestones:

6/09 — *Design Config LOCKED*
auto bed leveling, hexagon nozzle
PcD-Core/Baseboard, LCD

6/24 — *LCD/T.Scr samples recv*

7/01 — *BB Design completed*

7/08 — *Order DVT frames*

7/25 — *3 Core/BB EVT testing*

8/08 — *DVT Entry Review*

8/11 — *Build DVT machines / DVT Code release*

8/18 — *Order Daffodil long lead & low risk parts*

8/29 — *Foam prototype checkpoint*

9/15 — *Order Production long lead & low risk parts*

9/19 — *SAT Entry Review*

9/22 — *Build SAT machines / SAT Code freeze (except Video production)*

10-17 — *Ship Approved*

10-20 — *Start production*

11-10 — *Announce product*

Items to Validate: # of machine	**Items to Verify:** # machine	**To Verify:** Mach
1) Printability **5**	1) Performance(speed,...) **15**	Manufacturability **30**
2) Repeatability use above	2) Repeatability/Reliability use above	Longterm Reliability same
3) Userablity use above	3) Userability use above	
4) Mechanical Spec use above	4) Environmental 3	
5) Electrical spec use above	5) Op Shock/ Vibration 3	
	6) Non-Opshock use above	
	7) EMC/FCC 3	

Type of Test	**Type of Test** How long?	**Type of Test**
1) Can it print as well as Guava	1) Print-Visual/Time measur 24 hr	Long term reliability 72hr
2) Is bed leveling working	2) Short print/Cal, 24hr print 3 hr/ea	Assembly test run
3) Frame Stiffness	3) Hot, Hot/wet, Cold	
4) Basic Electronics Function	4) Bu	
5)	5) Drop test	
	6) Near/far field test & FCC	

Test Acceptance or Pass/Fail Criteria	**Test Acceptance or Pass/Fail Criteria**	**Test Accpt or P/F Criteria**
1)	1)	No Calibration drift, visual/
2)	2)	Measurement, dimension
3)	3)	Accuracy, consistency,
4)	4)	visual printing quality

Rules: Design changes allowed - No architect-related changes After config "locked" date unless program risks such as schedule, cost, … are studied & approved by the Project Approval Committee (PAC-stakeholders)	- Minor changes/improvements from RBF cycles allowed, no design - config/architect- related changes unless approved by PAC		- MFG/ "Ship" config hence NO change unless last minute discovery renders machine not shippable, require PAC approval

PAC Signed Off

Seth:

Steven:

Chris:

Jeff:

EasyTAZ Mini – Product Development Cycle_ Software & Firmware Functions & Features

06-09	06-16	06-23	06-30	07-07	07-14	07-21	07-28	08-04	08-11	08-18	08-25	09-01	09-08	09-15	09-22	09-29	10-06	10-13	10-20	10-27	11-03	11-10	11-17	11-24	12-01
92							49							20				0							

EVT2 - Engineering Validation Test –- Begonia –-	DVT - Design Verification Test –- Camellia –-	SAT–Design Maturity / Ship Approval Test –Daffodil-	Production Commences & Inventory Buildup	Product Announcement & Sales start	Cyber Monday
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11-15 machines	*25 machines*	*30-50 machines*	*120-140 machines*	*30-40/wk*	

6/09
Design Config LOCKED
auto bed leveling, hexagon nozzle
PcD-Core/Baseboard, LCD

8/11
Build DVT machines
DVT Code release

9/22
Build SAT machines
SAT Code release
(except Video production)

10-20
Start production

11-10
Announce product

6/24
LCD/T.Scr samples recv

7/01
BB Design completed

8/18
Order Daffodil long lead & low risk parts

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10-17
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7/08
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7/25
3 Core/BB EVT testing

8/08
DVT Entry Review

8/29
Foam prototype checkpoint

9/19
SAT Entry Review

Expected SW/FW Functions & Features

- Octoprint/Octoscript - Proof of concept UI Flow - - - - - - - - - - - - - -	- Basic UI - Working custom SD Image - Repo with packages for Slic3r, Octoprint, Custom Software - Ability to load files from USB drive - Connect/configure wifi - Control LED Strips via software - Web Daemon frontend for system calls - Onboard Slicing / STL Repair - - - - - -	- Polish UI Design - Incorporate Video/Help - Bug fixes - - - - - - - - - - - -			

EasyTAZ Mini – Product Development Cycle_ ELECTRONICS CONFIGURATION

06-09	06-16	06-23	06-30	07-07	07-14	07-21	07-28	08-04	08-11	08-18	08-25	09-01	09-08	09-15	09-22	09-29	10-06	10-13	10-20	10-27	11-03	11-10	11-17	11-24	12-01

92 ... *49* ... *20* ... *0*

Phases

EVT2 - Engineering Validation Test –- Begonia –-	DVT - Design Verification Test –- Camellia –-	SAT–Design Maturity / Ship Approval Test –Daffodil-	Production Commences & Inventory Buildup	Product Announcement & Sales start	Cyber Monday
Design **Validation** – **Functionally** focused	**Verification** – Reliability focused – RBF	**Qual** – MFG/ Quality	**Ramp**	*Sell, Sell, Sell!*	
11-15 machines	*25 machines*	*30-50 machines*	*120-140 machines*	*30-40/wk*	

Milestones

6/09 — Design Config LOCKED — auto bed leveling, hexagon nozzle — PcD-Core/Baseboard, LCD

6/24 — LCD/T.Scr samples recv

7/01 — BB Design completed

7/08 — Order DVT frames

7/25 — 3 Core/BB EVT testing

8/08 — DVT Entry Review

8/11 — Build DVT machines — DVT Code release

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9/22 — Build SAT machines — SAT Code release (except Video production)

10-17 — Ship Approved

10-20 — Start production

11-10 — Announce product

Expected Electronic Configuration

	EVT2	DVT	SAT
Motion Controller	Rambo 1.3L/Mini RAMBo	Mini- Rambo, rev?	Mini- Rambo, rev?
Comm Controller:	Olimex	Linksprite: Core + Baseboard, rev 1.0	Core/ Baseboard, rev?
			-
LCD:	Olimex	Linksprite LCD (1280x800) (rev ?)	Linksprite LCD (1280x800) (rev ?)
USB:	Extension	Baseboard Ports (x4)	Baseboard Ports (x4)
WiFi:	None as of now	Dongle	Dongle
	-	LEDs	LEDs
	-	Speaker	Speaker
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-