

# Toni Nadal

CV REAL TIME VERSION:

- PROJECT DEVELOPER -ADDITIVE MANUFACTURING & MEDICAL DEVICE EXPERT

**CURRICULUM VITAE** 

## **ABOUT ME**

**3D@toninadal.com** \$\mathbb{\mt}\mtx}

I've always been struck by how things work. I guess that's why I've ended up being passionate about technology. I started my studies with a Technical Engineering in Industrial Electronics, accompanied by a full-time Master's Degree in Biomedical Engineering and complemented with a postgraduate degree in Expert in Medical Devices. In 2012, I started playing with 3D printers as a hobby, designing my own 3D printers (filament and resin). In a short time, I was advising, selling, and working with the top 3D printing brands, including Stratasys and 3D Systems, among others. I've been involved in all kinds of projects, so I have a lot of experience with all the additive manufacturing technologies and all the things that surround 3D, from metal printing, CAD designs, new applications, or even selling strategy or ROI calculation.

Currently, I'm putting my business and innovation knowledge in three projects. I am helping to create, carry out, and coordinate a business plan for the distribution of 3D printing equipment nationwide. On the other hand, I'm managing a 3D printing laboratory within a hospital at a regulatory and new application development level. So also, I'm doing a doctorate oriented to regulation and safety of 3D printers for medical applications. Therefore, I have the perfect profile to lead all kinds of projects related to the development of new products or innovation, especially medical devices.

I always try to be learning and improving, so if you want to know my last updates, enter www.toninadal.com and find out my latest achievements.



#### **EXPERIENCE**

**3D printer** designer (SLA)

**Additive manufacturing** and medical device consultant

Project leader & quality manager of medical devices

3D printer and CNC designer and teacher

**Project Manager:** 3D healthcare department



#### Regulations and quality of medical devices through additive manufacturing

- 3D printing quality controls for MD
- 3D printing materials for medical devices - Limitations in 3D designs for 3D printed MD

#### **ORIENTATION TO RESULTS AND SETTING OF OBJECTIVES**

- Results orientation and project success
- Broad vision of the business and the organization
- Skills that allow to select and lead team:

# **POSTGRADUATE**

#### MEDICAL DEVICE EXPERT

- Regulatory aspects: Regulatory and normative (FDA and CE)
- Quality systems: ISO13485
- Project management: Technical File

## **BIOMEDICAL ENGINEERING (120 ECTS)**

- Knowledge of biology and physiology
- Research and development
- Medical equipment design and maintenance

# MASTER

DEGREE

**DOCTORATE** 

(IN PROGRESS)

**FORMATION** 

## **FORMATION**

#### ADDITIVE MANUFACTURING FOR INNOVATIVE **DESIGN AND PRODUCTION**

- Complete operation, times and costs of the AM
- Metal 3D printing
- Generative design and DFAM

### **BACHELOR'S** DEGREE

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#### INDUSTRIAL TECHNICAL ENGINEERING. **SPECIALTY IN INDUSTRIAL ELECTRONICS**

- Electricity (circuits boards) and power electronics
- Automata and robotics
- Programming and image processing



#### **HIGHLIGHT**

- Leading Projects
- Product Design
- Organic and parametric 3D design
- Manufacturing processes
- Programming languages
- Advanced office apps
- DICOM imaging treatment



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Spanish - Native

**LANGUAGES** 

English - Native

Catalan - Native

# Toni Nadal

#### **PROJECTS & PUBLICATIONS**



### **FEATURED PROJECTS**

**POSITION** 

#### **PROJECT**





#### **CREATION OF A STARTUP**

STARTUP MANAGMENT

- Tutor of 3 final degrees project

Sales strategy: Create e-commerce

- Design of products
- Technical service

- Design of products

**FREELANCE** 

Web design

3D printing services Healthcare Product design

- Tutor of 5 intern students

#### **SLA-DLP 3D PRINTER**

- Developing a new product: ResinCAT First Open Source SLA 3D Printer in Spain
- Hardware, Electronics & Firmware design

#### **FFF 3D PRINTER & CNC**

- Adding FFF features: Dual extruder & autoleveling
- LCD touch screen
- Reduction of cost

### **3D PRINTING ACADEMY**

- 3D printing for school teachers
- 3D printing for Architecture - 3D printing for Healthcare aplications

#### **SURGICAL GUIDE**

- Healthcare application: Foot (Bunion)
- External guide (No need of operation room)
- Comercial product: Design and production

- **SEDNA PROJECT** - Circular economy
- Recycling of plástics
- Business model

#### MASTERTEC3D SERVICEPACK

- Formation & Technical Service platform
- 13 3D courses
- Reduce the number of technicians

#### 3DCOVID19.tech

- More than 100,000 products created
- Regulatory & Production Manager

#### **3D LAB REGULATORY**

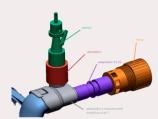
- Medical devices: 3D models, Surgical guides, ..
- License documentation: ISO13485 - Automate documentation workflow

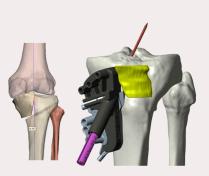
## PIT3D

- 3D design of an external breast prosthetic
- Clinical & Product validation
- Tutor of final degree project











**MASTERTEC<sup>3D</sup>** 

#### **QA & PROJECT LEADER**

**PROJECT MANAGER** 

Manager of 4 employes

- Product validation Aplication engineer

- Technical File
- Operation Workflows
- Preoperative surgical planification



#### **PUBLICATIONS**

**ENGINY EPS** - Control system using LABVIEW

Parc Taulí

Surgical Planning Lab

**ENGINY EPS - Programming an accelerometer using VIRTUAL INSTRUMENTATION** 

BMC Health Services Research - Integrated 3D Printing Solution to Mitigate Shortage of Airway Consumables and Personal Protective Equipment During the COVID-19 Pandemic



#### **SOFTWARE & HARDWARE 3D EXPERTISE**













