

# IoT & 3D Printing – Syllabus (DIYguru)

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## **Fundamentals**

Basic Concepts of Physics  
Understanding of Computer  
HTML Coding Basics  
Introduction to Electronics & Open Source Hardware  
Arduino & Intel  
Actuators & Motors Control  
TCP / IP and Networking Basics  
Creating a Webpage

## **Intermediate**

Working with IFTTT  
MQTT Protocol  
Using Adafruit IO  
Introduction to ARM Based Microprocessors Test  
Raspberry Pi  
Introduction to 3D Design & Printing  
Building Your First Robot with 3D Printed Parts  
Introduction to Block Circuits - LEGO

## **Advanced**

Wireless Boards  
Cloud Computing & IoT  
Getting Sensor Values and Updating it Live  
Push notifications, Facebook/Twitter status update  
Controlling of IO over the Internet

## **Course Materials**

Available on <https://courses.diyguru.org/class/automobile/>