

 adafruit learning system

## Pokemon iPhone Case

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Last updated on 2018-08-22 03:55:18 PM UTC

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## 3D Printing



### Overview

In this tutorial, you'll learn how to 3D print a Pokemon themed case for an iPhone 6+/6S+ in flexible filament. The dual colors appears to be dual extruded, but they're actually two separate parts.

[https://youtu.be/r\\_HQV2m04u4](https://youtu.be/r_HQV2m04u4)

### Flexible Filament

TPU (thermoplastic polyurethane) filament is a flexible material that's ideal for gaskets, plugs, leveling feet, and mobile phone cases! There's different types of TPU, some which more elasticity than others and others with more grip.

This case design is only for flexible material! It will not fit an iPhone if it's printed in hard plastic.

### Regular PLA

The Pokéball logo can be printed in regular PLA. You can use general print settings for that.



## Settings for Flexible Filament

- 240C Extruder Temperature
- 65C Heated Bed (glass, PrintInZ, BuildTak, kapton, etc.)
- Blue Painters Tape for Non-heated Bed
- 30mm/s default print speed
- First Layer, Top and Bottom Layer Print Speed: 50% of 30mm/s

## 3D Printer & Slice Setting

TPU filament can be rather difficult to 3D print. Follow our recommended settings below for a good starting point. We've found TPU works best with direct-drive extrusion, however bowden style extruders with 2.85mm diameter will work fine.

## Print Hotter

TPU extrudes best at 240C-245C temperatures. It has a higher melting point and requires more heat than regular PLA or ABS.

## Bed Adhesion

65C temperatures for heated beds. For non-heated beds, blue tape works well.

## Printing Speeds

30mm/s for default printing speeds. 50% slower for the first, top and bottom layers. A slow print speed allows for better layer bonding and good adhesion to the bed.

## STLs and Design Source

Download the STLs by clicking the button below. You can modify the design by downloading the source in your preferred format (STEP, IGS, SAT, SketchUp). This was designed in Autodesk Fusion 360.

<https://adafru.it/pnB>

<https://adafru.it/pnB>

<https://adafru.it/pnC>

<https://adafru.it/pnC>



**Gallery**  
Photos of sides and  
bottom

