--=||||[[[LITTLE DIY SYNTH]]]||||=--

It is easy... so, let's start building!
First of all get your desk ready and make sure you have the necessary tools:
- soldering iron
- soldering tin
- cutter (the ones like in the picture are the best but a small nail clipper will do the job too)

Follow the next steps in the order it is written down.
After each step flip the board and clip off the wires.

Diodes 1
D1/D2/D3/D4/D5/D6   BAT43 (Blue with black stripe)
Make sure you solder them in the right direction! There is a black
marker on one side which should correspond with the marker on the
PCB like on the drawing.
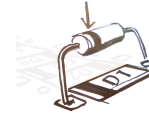
Resistors
R1-R12   1K (brown – black – red)
R13   3K6 (orange – blue – red)
R14-R15   1K (brown – black – red)
R16   150R (brown – green – brown)
R17   10K (brown – black – orange)
R18   1M (brown – black – green)

Diodes 2
D7   1N4001 (black with white stripe) Mind direction!

Capacitors 1
Start with the small yellow ones, these are marked with 103 (10nF) and 104 (100nF):
C1/C2/C3   103 (10nF)
C4/C5/C6   104 (100nF)
C7   330nF (blue cap)
(C8 and C9 will be soldered later)

Power regulator 78L05 (Don't mix it up with the transistor!!!!!!!)
This is the black thing with 3 feet which looks like a transistor, there is 78L05 written on it. Mind the direction drawn on the PCB!

Transistor BC547 (Don't mix it up with the power regulator!!!!!!!)
This is the black thing with 3 feet which looks the same as the 78L05, there is BC547 written on it. Mind the direction drawn on the PCB!

2 pin header
There are two little holes next to the audio output (look at the frontpanel to see where it is), this is where the 2 pin header for the jumper should go. Without the jumper you will get a mono output in case you want to integrate it in a bigger setup.

Capacitors 2
C8/C9   10uF
Mind that these caps have two sides (a + and – side) so it is important to check the direction before you solder them! The – side is marked on the PCB with a small "–" and has a square pad.

Keyboard switches
The small switches can be soldered on the keyboard now. They fit only in one way. Press them fierly to make sure they sit nice flat on the board.

Potentiometers, power connector, jack sockets and the two tall small switches
(Don't solder the potentiometers and the jack sockets yet!)
Place all the parts and place the panel and tighten the sockets with the nuts. The green one is the output jack.
Solder the potentiometers and jack sockets.

Arduino
Place the headers on the arduino and then solder the Arduino including the headers onto the PCB.

A little fix before you are finished!
At the back of your synth you will see two cut traces, between these points you have to solder a little wire. Ask one of us to help you.

Enjoy!