Course requirements and manufacturing

Requirements

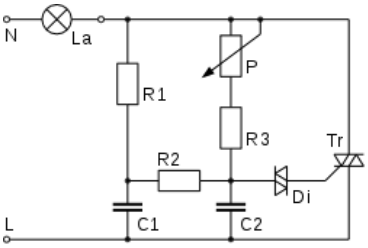
- Demo
  - Thursday 7 November, 9.15-12.00, room TBD
  - 5 minute demonstration
- Report
  - 6-8 pages
  - Swedish or English
  - Directed to the project leader and describing what you have done so she can decide to proceed or not to a full prototype.
  - Deadline 15 November
- 1 minute film, “Kickstarter demo”, deadline 15 Nov.
- Return of parts , deadline 15 Nov.

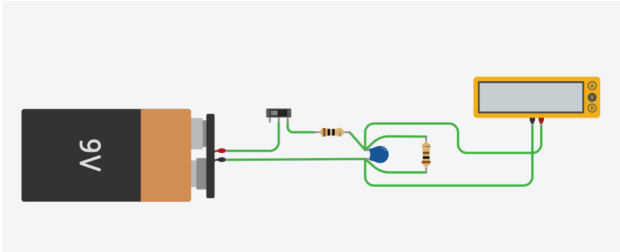
Report in ETIA06 2019

- The report should be a presentation of your project.
- 6-8 pages
- Should include description of concept including photos of early and late prototypes.
- Should include circuit sketch or diagram, program code, and parts list.
- Cost estimate of the final product (or prototype).
- Estimate of battery lifetime (time between charges), if applicable.

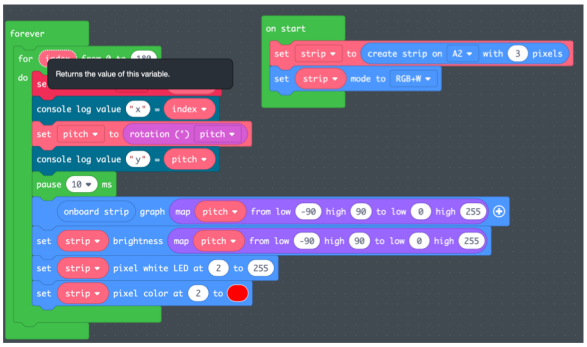
- Email report to
  - anders.j.johansson@eit.lth.se
  - Include “ETIA06” and group number in subject.
- Email link to movie
  - Dropbox
  - Youtube
  - Your choice
- Give components back
  - Friday 15 November 13.15-14.00, outside studio.

Circuit diagram or sketch: your choice





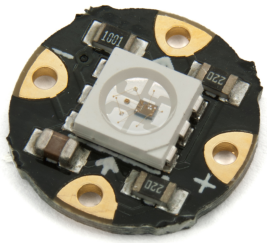
Program code as you have written it.




```
let pitch = 0
let strip = light.createStrip(pins.A2, 3)
strip.setMode(NeoPixelMode.RGBW)
forever(function () {
    for (let index = 0; index <= 180; index++) {
        pins.A1.servoWrite(index)
        console.logValue("x", index)
        pitch = input.rotation(Rotation.Pitch)
        console.logValue("y", pitch)
        pause(10)
        light.onboardStrip().graph(Math.map(pitch, -90, 90, 0, 255))
        strip.setBrightness(Math.map(pitch, -90, 90, 0, 255))
        strip.setPixelWhiteLED(2, 255)
        strip.setPixelColor(2, 0xff0000)
    }
})
```

Cost estimate

- Your best guess.
- Use
  - Electrokit
  - Lawicel
  - Farnell



25 SEK

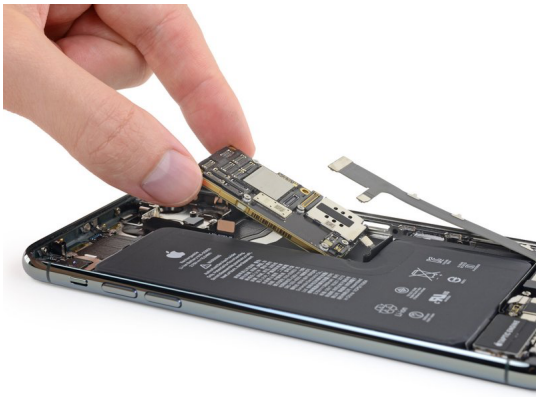
10,52 SEK each,
in batch of 250 pcs.

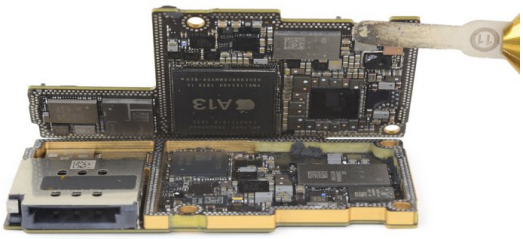
Battery lifetime

- Estimate by current measurement.
- Calculate time from chosen battery size.

- Current x time = mAh
- Alternative: run out on a fully charged known battery.

Manufacturing





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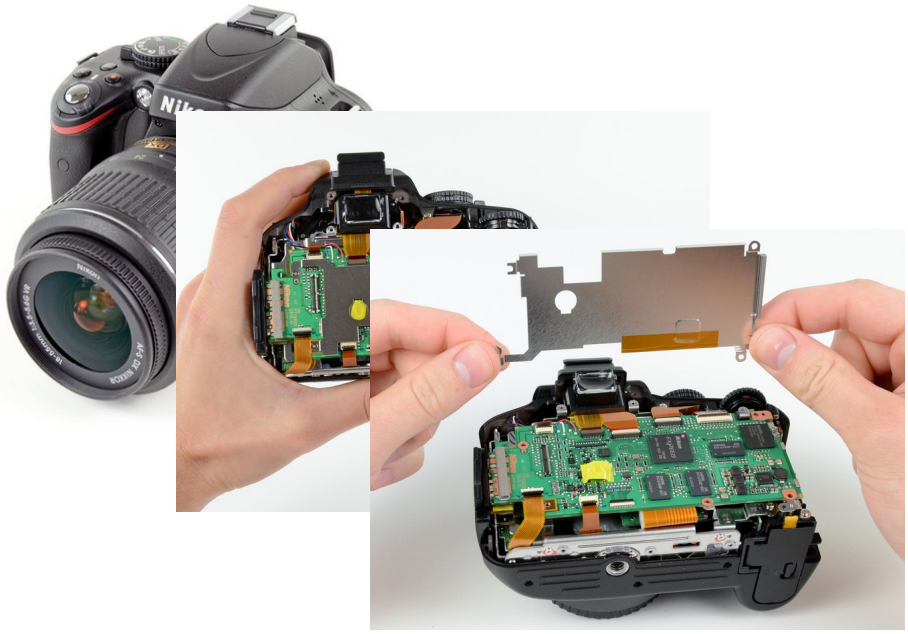
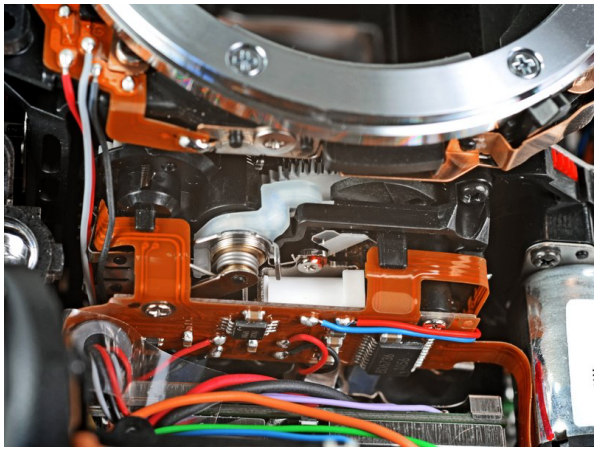
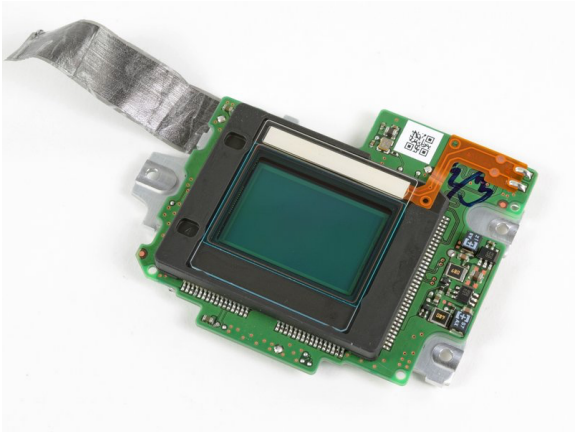
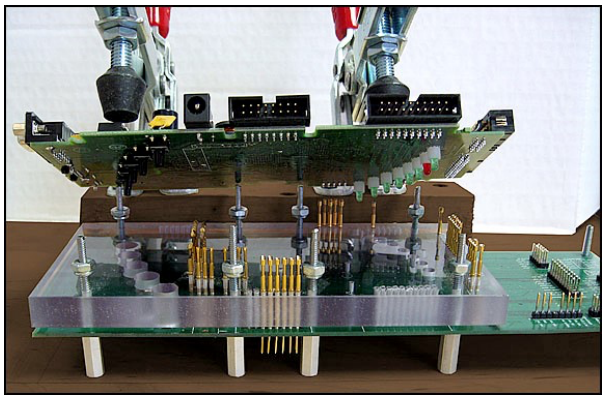






Pogo pin



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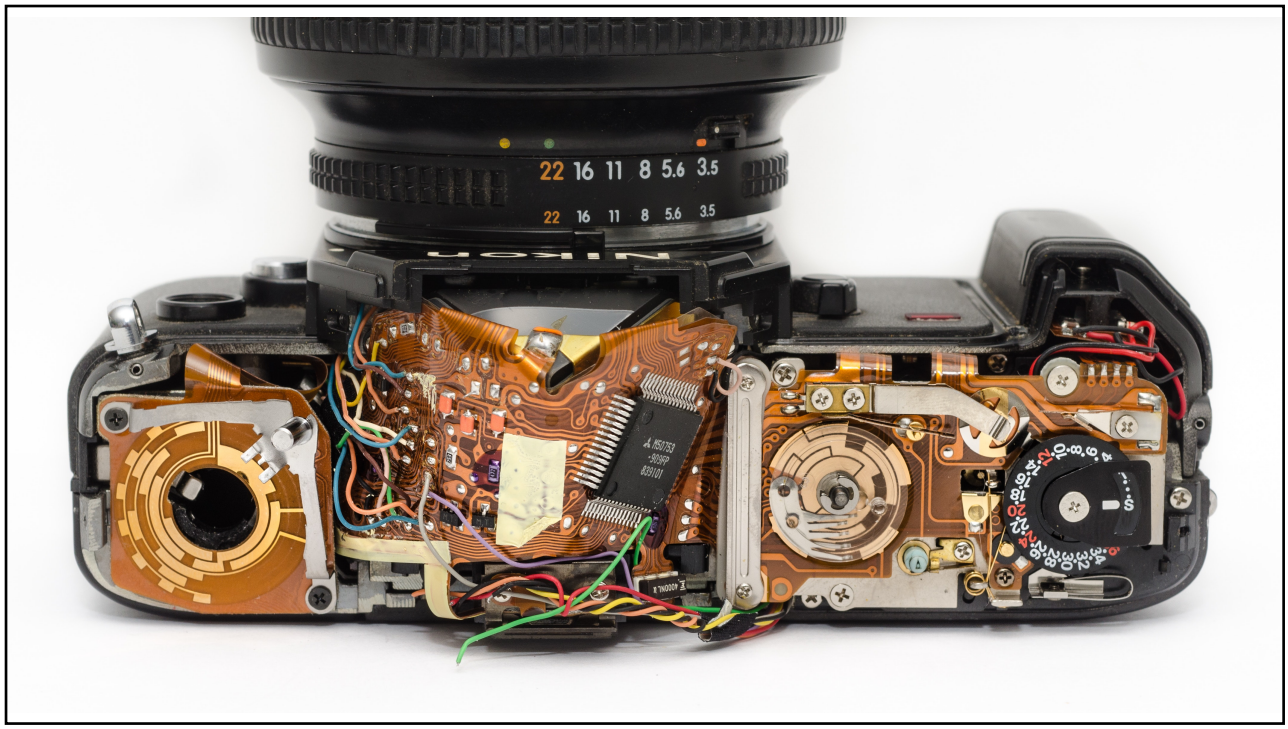
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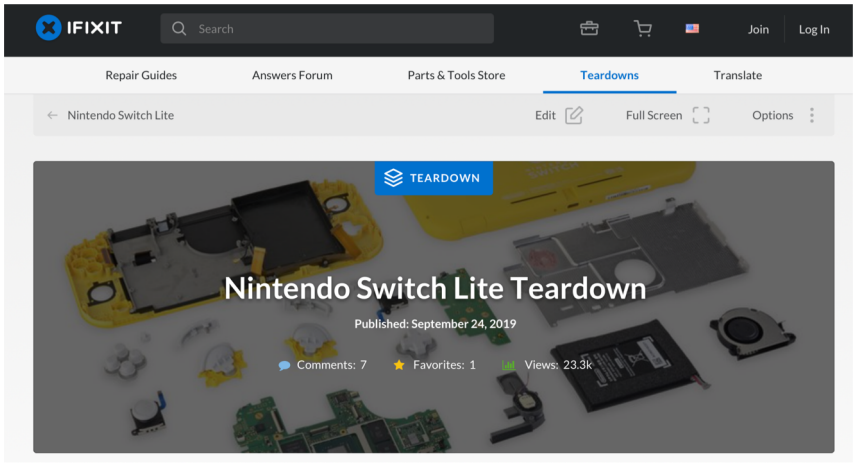
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