### Title

Hand-Raiser

### Subtitle

An assistive device used to catch the attention of a professor: an alternative to a student having to raise their hand.

### Device Specifications

Build Time:

 < 1hr

1-4 hr

 5-10hr

 >10hr

Cost:

 $0 - $10

 $11 - $25

 $26 - $50

 $51 - $100

 $101 - $250

 $250+

Stage: Recently Added

Skills: 3D Printing, Software

Need: Mobility

Disability: Mobility/Physical

Difficulty: Beginner

License:

Usages: Aids for Daily Living (ADL), Mobility, Communications Aids (AAC)

Type:

Designer: AT Makers

## Device Details

### Overview

The Hand-Raiser is an assistive device intended to be used to catch the attention of a professor without a student having to raise their hand. This device would be beneficial for someone who has difficulty or is unable to raise their hand for an extended period of time.

### Usage

The Hand-Raiser works by flashing it's light according to the incoming requests through the USB connection. The Hand-Raiser includes a set of Windows Shortcuts that can be used to change the LED by just double clicking on it.

### Compatibility

The Hand-Raiser can work with any PC, Mac, Android, or Raspberry Pi with a USB port.

### Cost

The Hand-Raiser costs approximately $15.

### Build Instructions

#### A set of build instructions can be found linked above in the Assembly Guide.

#### Skills Required

* 3D Printing Skills
* Programming

### Time Required

* Total print time: 70 minutes
* Assembly Time: 10 minutes

#### Tools

* 3D Printer
* Computer with USB port

#### Components

* 1x Adafruit Trinket - [Link](https://www.adafruit.com/product/3500)
* 1x USB Cable - USB A to micro-B - [Link](https://www.adafruit.com/product/592)

### 3D Printing

All components can be printed with no support at 20% infill with a 0.2mm layer height. There are 3 pieces to the enclosure: a back plate, a hanging hook, and a faceplate.

* 1x Back Plate
* 1x Hanging Hook
* 1x Faceplate - This piece must be printed with translucent filament.

Note that there are several versions of the hook and the faceplate, but you only need one of each.

### Attribution

The code for this device was written by Bill Binko and is licensed under the MIT license.

The Hand-Raiser 3D printed housing was designed by [AT Makers](http://atmakers.org/2020/01/handraiser-light/) and is licensed under the Creative Commons - Attribution - Non-Commercial - Share Alike license.

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