

Tutorial of a Multipurpose Medical Camera - Video Scripts

一个多功能医用摄像机视频教程--视频文字解说

Video name: 视频名称

Tutorial of a Multipurpose Medical Camera 一个多功能医用照相机的使用教程

Cover page of the video: PowerPoint slide P1 (Appendix 1)

视频封面: 幻灯片演示文稿第一页 (附件 1)

- **Part 1 - Greetings and general introduction**

第一部分 - 开场白及总体介绍

Video: Camera focus on presenter with the whole set of camera on the table in the front.

视频: 摄像聚焦于讲解人, 面前桌面放置全套摄像设备

Narrations: 讲解

*Hello everybody. Today I am going to introduce you a **Multipurpose Medical Camera**.*

大家好! 今天我给大家介绍一个多功能医用相机。

*This **Multipurpose Medical Camera** is digital, portable, diagnostic camera with three different lenses attachment. It consists with a **handset** and the **lenses**. You can take pictures and videos while doing the examination, and share them real-time or non-real-time with somebody from distance. You can also keep them as record to just monitor disease progression.*

这个多功能医用相机是一个便携式数码诊断用相机, 自带三个不同的光学镜头。它由一个手柄和几个光学镜头组成。你可以在检查的过程中摄像或录像, 并可以实现远程的实时或非实时的影像传输, 也可以仅用于影像存档跟进病情进展。

- **Part 2 - Hardware introduction**

第二部分: 硬件介绍

Video: Camera focus closely to the device and lenses

视频: 摄像近距离聚焦于仪器和镜头

Narration: 讲解

*This upper portion of the handset: a **touch screen in the front** and the **lens install slot** at the back. In the middle of this install slot is a sensor that captures images, it also generate white LED light source.*

手柄的上半部分是整个摄像机的基础元件, 前面是一个触摸屏, 后面是镜头卡槽。镜头卡槽的中间是成像感应器, LED 白光源也从这里产生。

*Down here is a **rolling wheel**, it is used to change focus or brightness of the images, or can act as a button to take pictures or videos. Inside the handle is a **battery cassette**. The standby time for the battery is around 7 days; operating time under video mode is 3.5 hours, charging time takes 3 hours. On the bottom is a **Type-C USB connector** for charging and data transfer.*

触摸屏下面是一个转轮, 可用来调节影像的对焦和亮度, 也可作为摄像快门使用。手柄的中

空部分是电池槽。电池的待机时间大概7天，录像模式下的工作时间为3个半小时，充电时间3个小时。手柄底部是一个C-型USB接口，用于充电和数据传输。

These are the three optical lenses: otoscope lens, dermatoscope lens and high definition general lens. Now I will show you how to install and remove the lenses:

这三个光学镜头分别是：检耳镜镜头，皮肤镜镜头和通用高清镜头。现在我将展示如何装卸镜头：

- *Hold the handset and the lens with each of your hands*
双手分别握紧手柄和镜头
- *And align the lens' mark (this white dot) and the handset's mark, another white dot together*
将镜头处标记（一个白点）与手柄卡槽处标记（另一个白点）对齐
- *And turn it clockwise to install, turn it counter clockwise to remove.*
顺时针方向旋转安装，逆时针方向旋转拆卸

To place a specula, put it on top and turn it clockwise.

安装检耳镜耳套：把耳套放置检耳镜顶端顺时针方向旋转

Video: Taken from studio + demonstration

视频：工作室拍摄镜头特写加实例应用展示部分截取

Narration: 讲解

The otoscope lens offers an enhanced view of the external ear canal and tympanic membrane; you can capture the colour, position, and translucency of the eardrum.

检耳镜镜头可以提供外耳道和鼓膜的增强图像，能清晰捕捉鼓膜的颜色，位置和透明度。

The dermatoscope lens allows examination of the skin surface, to identify or measure skin lesions. No liquid agent is needed for this scope.

皮肤镜镜头可以用于皮肤表面检查，鉴定及测量皮肤病变。该镜头无需使用耦合剂。

The general lens has a focus range from 30 mm to 4 m, it is used to capture high resolution images of easily accessible areas of the body and oral cavity, like mouth and throat, wounds or body parts.

通用镜头的对焦范围为30毫米至4米，它可以用来拍摄任何易于暴露的身体部位或口腔的高清图像，例如：口及咽喉，伤口或身体局部。

● Part 3 - Software introduction

第三部分：软件介绍

Video: camera focus on camera touch screen

视频：摄像对焦触摸屏

Narration: 讲解

Now we will turn on the machine by pressing the button for 3 seconds, do the same if you want to turn it off. It takes 25 seconds for the start-up process to finish.

现在我们开机，长按开关键3秒钟开机，关机亦然。整个开机启动程序为25秒。

Now the camera is on, this button goes (leads) to record. So you can review all the record from here. When you press this square, it gives you the record (in folders sorted by date). you can review your record like this.

现在已经开机，按此键进入存档，你可以回顾已存的图像。当按下这个田字方块，界面显示所有图像（文件夹按日期收录），点开后可以滑动查看。

Basic Settings:基本设置

- **Patient information: if you put it on, then this patient information will show on your result. You see all the patient name (information) here. If you turn it off, then it won't show.**
患者信息：如果开启，患者信息会显示在结果图像上，你可以在这里看到患者名字等信息。如果关闭，患者信息不会显示。
- **Tap on this icon to enter patient information. Patient last name and first name. And then the date of birth, gender . Save. And now the patient name will show here on the screen.**
点这个图标来输入患者信息。患者姓名，生日和性别，保存。现在患者姓名会显示在屏幕上。
- **If you want to remove or change to another patient, you can modify from here. If you want to just totally remove all the information, tap delete. Now this is empty.**
如果你想要更改或者删除患者信息，可以点这里修改。如果想完全删除患者信息，点删除键。现在这个图标变成空心。
- **This UVC modal, is to use when you want to do real-time image transfer**
这个UVC模式用于做实时影像传输的时候打开。
- **Here (to set) the font size, time setting, language.**
下面可以设置字体大小，时间，语言。
- **For this ABOUT, be very careful with this Factory data reset. If you press this and click ok, you will clear up all the memory and you lose all the record files!**
“关于”这个选项中，要特别留意这个重置出厂设置。如果你点开并且选择OK，你将清除所有内存，所有的影像资料都会丢失。
- **This question mark actually lead you to the self study page, it tells you how to manage this device. You can go through it again when necessary.**
这个问号按键将带你到自学界面，这里会告诉你如何操作本设备。你可以随时在这里进行浏览。

Now let's go through Otoscope module. 现在让我们看一遍检耳镜模式。

- **Under this module, tap here to choose the right ear or the left ear.**
在这个模式下，有一个左耳或右耳的按键选项。
- **And this one, is manual focus (MF) or auto focus (AF), you can (choose MF) adjust from here to focus manually.**
这个按键切换手动对焦MF和自动对焦AF，你可以在MF选项下手动调整焦距。
- **This one is the brightness adjustment, use the rolling wheel to adjust the brightness.**
这个是亮度调节按键，可以用转轮来调节。
- **This is to get ready for taking pictures or video. Taking pictures, when you turn it (rolling wheel), it takes picture. Or you can use your finger and do it like this.**
点这里预备好摄像或录像。拍照时转动它（转轮），或者用手指像这样点击屏幕。

Under the demoscope module, you see this ruler. (Go to the setting page and find) Dermatoscope ruler unit. You can use mm or inch. Usually we put mm. You can change its place according to the skin lesion you want to measure. Here's the brightness, you can adjust it . Usually you don't take video, you take pictures.

现在我们看一遍皮肤镜模式。设置这里可以看到皮肤镜尺度单位选择，有毫米或英寸可选，一般我们选择毫米。这个标尺可以根据你想要测量的皮肤病变点调整位置。这里是亮度调节，你可以通过转轮调节。此模式下通常我们拍照片，不摄像。

Under the general lens, you also have auto focus (AF), manual focus (MF), brightness adjustment, and then video or images.

现在看一遍通用镜头。在通用镜头模式下，你可以选自动或手动对焦，调节亮度摄像或录像。

● **Part 4: Demonstration with volunteer patients (Powerpoint slide p2)**

第四部分：实人操作演示（演示文稿第 2 页）

Otoscope Lens (Powerpoint slide p3) 检耳镜检查（演示文稿第 3 页）

Video: Camera focus on presenter and volunteer patient

视频：摄影聚焦于解说者及志愿患者

Narrations: 讲解

- *Greet the patient and explain about the procedure*
迎接患者并解释本操作。
- *Set the patient in comfortable position. Sit on the same level as the patient while operating. Standing position is also possible for the examiner depend on real situations.*
患者取舒适体位。操作时检查者与患者坐同一高度。检查时检查者也可站立，视情况而定。
- *Tilt the head a bit to the opposite side of the exam ear helps to expose the ear better. Start examination always on the good ear.*
检查时患者头稍偏向对侧有利于更好暴露外耳道。总是先检查健侧。
- *Pull the ear upward and backward. Use your right hand when examine the right ear and left hand when examine the left ear*
拿住外耳廓往上往后拉，检查右耳时右手持检查手柄，检查左耳时用左手持手柄。
- *Take video or image and save it in record by tapping the relevant buttons.*
点击相应按键摄像或者录影并保存。

Dermatoscope Lens (Powerpoint slide p4) 皮肤镜检查（演示文稿第 4 页）

Video: Camera focus on presenter and volunteer patient

视频：摄影聚焦于解说者及志愿患者

Narrations: 讲解

- *Greet the patient and explain about the procedure.*
迎接患者并解释本操作。

- *Hold the handset and put the lens against the skin area to be checked*
手持摄像机手柄将皮肤镜镜头放置于皮肤受检查部位。
- *Take photo/video and adjust by tapping the relevant buttons*
点击相应按键摄像或者录影并保存。

General lens (Powerpoint slide p5) 通用摄像功能（演示文稿第 5 页）

Video: Camera focus on presenter and volunteer patient

视频：摄影聚焦于解说者及志愿患者

Narrations:

- *Greet the patient and explain about the procedure*
接患者并解释本操作。
- *Hold the handle and move towards desired position.*
手持摄像机手柄并移动到合适的拍摄位置。
- *The lens should be about 35 mm from the required images (location).*
拍摄时镜头至少距离被拍摄物 35 毫米之外。
- *Take photo/video and adjust by tapping the relevant buttons*
点击相应按键摄像或者录影并保存。

● **Part 5: Miscellaneous and ending** **第五部分：杂项及结尾**

PowerPoint slides (p6-13) with background music and narrations **演示文稿第 6-13 页，附背景音乐及解说**

Narration: 讲解

Precautions when using the camera: 相机使用注意事项

- *Prevent hitting or dropping the camera to hard surface.*
避免将相机碰撞或掉落坚硬物体表面。
- *Avoid excessive force on the lens.*
避免过度挤压镜头。
- *Avoid dust, splash or water.*
避免灰尘，溅水或淋湿相机。
- *Avoid sudden change of temperature to avoid condensation.*
避免突然大幅温度变化防止水气冷凝。
- *Keep the camera away from electromagnetic equipment.*
相机避免接触电磁设备。
- *Never leave the camera and the battery in a car or on a car hood in the summer.*
不要在夏天把相机留在车中或引擎盖上。
- *Refer to user manual for further instructions.*
如有疑问，详看用户手册。

Cleaning and Disinfection 清洁与消毒

- *Turn off the device before cleaning*

清洁时关机。

- *Disinfect the control unit and charging adapter with a soft cloth with alcohol disinfectant (eg. 70% ethyl alcohol).*
用含酒精消毒剂的软布消毒机身和充电接头。(如 70% 的乙醇)
- *Wait for the cleaning liquid to dry before turning the power on or charging.*
等到清洁剂干透后再开机或开始充电。
- *Clean the optical lens with a cleaning cloth or lens cleaning tissue*
光学镜头用镜头清洁布或镜头清洁材料清洁。
- *Clean the position of dermatoscope lens which have been in contact with patient before each use.*
接触过患者皮肤的皮肤镜头要清洁后方可再次使用。
- *Replace disposable specula before each use.*
每次使用时更换新的耳套。
- *Do not sterilize the device.*
不要把将设备灭菌处理。

Storage 保存

- *Surrounding storage temperatures are from 0 °C to 45 °C.*
保存的环境温度在 0-45 °C 之间。
- *Relative humidity should be from 15% to 95% without condensing.*
保存环境湿度在无水汽冷凝的 15%-95% 之间。
- *Recommended to remove battery if storage over 2 weeks.*
保存超过 2 周以上的建议移除电池。

Trouble shooting 问题解决

- *Failed lens recognition: remove the lens and check if there is any connection pin and surface problem. Make sure the connect pins and surface are OK then place the lens again.*
无法捕捉镜头：如果相机软件无法正确识别接入镜头，把镜头取下，检查镜头的连接电极片或连接表面是否有问题，确保电极片和接触表面正常，再次安装镜头。
- *Illumination does not work: change lens to see if the illumination control are normal otherwise.*
照明光源不工作：更换其他镜头查看照明是否正常。
- *Cannot turn on handset or short battery operation time: check if battery is charged or if battery is in good condition.*
无法开机或电池工作时间短：检查电池是否充电饱满或状态正常。

PowerPoint slides (p14) 演讲文稿第 14 页

Narration: 讲解

Thank you for watching! 感谢观看!

Special thanks to: 特别鸣谢

Ms. Hanna-Mari Pesonen: Supervisor

Ms. Heidi Hintsala: Working life supervisor

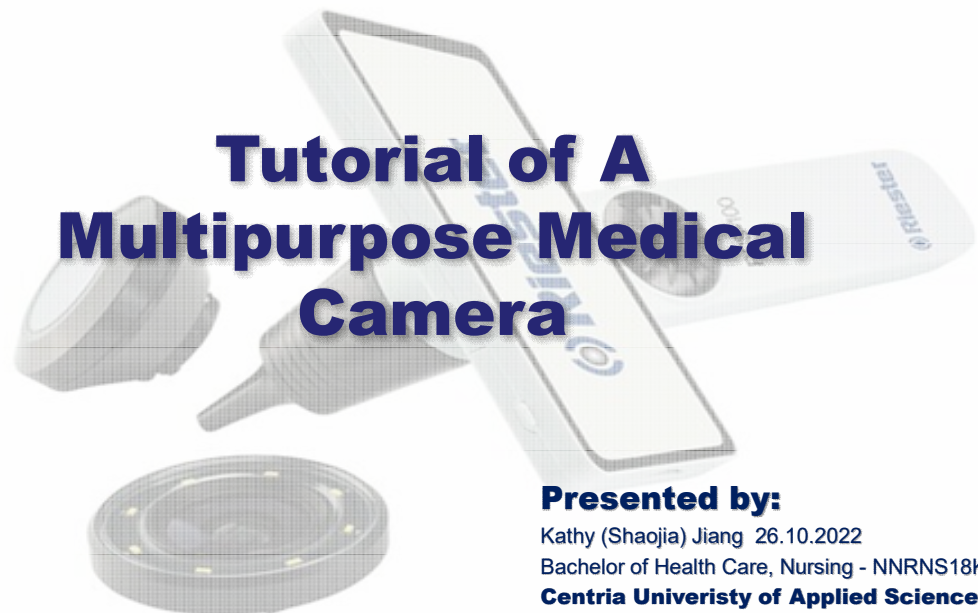
Mr. Markus Kunelius: Video filming and editing

Ms. Heidi Kaartinen: Project communication and subtitles synchronization

Mr. Joonas Pesio: Volunteer patient and technical assistant

Ms. Mitha Jose: Volunteer patient

Appendix 1: Tutorial of A Multipurpose Medical Camera Powerpoint slides 附录 1



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