

## HP Probook x360 B1 EE Grade B

Installing ubuntu in an HP Probook x360 B1 EE Grade B

Storage 128 GB SSD

Boot ubuntu 18.04

Installation stuck at 'installing grub2'.

Restart the system using power button.

Firmware supports only windows and normally you can not install ubuntu in this system. Bios recognize only Microsoft windows. If you insert a bootable usb drive bios recognize it as 'microsoft'.

Here you can see how I managed to install ubuntu in such a machine.

sd1=EFI partition.

sd2=root partiion.

After installation boot in to the live session.

Issue the following commands to install boot loader

boot-repair does not work

**Mount newly installed file system into /mnt:**

```
sudo mount /dev/sda2 /mnt
```

(sda2 is the root partition)

(Check Application--disks )

```
sudo mkdir /mnt/boot/efi (if it is not there)
```

(No need for this command if EFI Folder exists in the drive )

```
sudo mount /dev/sda1 /mnt/boot/efi
```

(sda1 is the root partition . Check Application---Accessories---disks)

```
for i in /dev /dev/pts /proc /sys, do sudo mount -B $i /mnt$, done
```

(where sda2 is the root partition and sda1 is the efi partition)

Load efivars by:

```
sudo modprobe efivars
```

Reinstall grub--install for a 64bit version

```
sudo apt-get install --reinstall grub-efi-amd64
```

```
sudo grub-install --no-nvram --root-directory=/mnt
```

Change root to /mnt and update grub

```
sudo chroot /mnt
```

```
sudo update-grub
```

Move and rename the installed bootloader

```
cd /boot/efi/EFI
```

```
sudo cp ubuntu/* BOOT
```

```
cd BOOT
```

```
sudo update-grub
```

**see the bug here**

**<https://lists.gnu.org/archive/html/bug-grub/2017-12/msg00010.html>**

## The following are the final steps to make sure that your system will boot ubuntu

This HP computer only look for Microsoft boot loader file who's entries are Windows ie It will Only boot Windows

The workaround is to rename `grubx64.efi` to `bootmgfw.efi` and place this file in not one but three different directories [to cover BIOS variants

```
cd /mnt/EFI
```

```
mkdir Microsoft
```

```
mkdir Microsoft/boot
```

```
mkdir boot
```

```
cp /mnt/EFI/ubuntu/grubx64.efi /mnt/EFI/Microsoft/boot/bootmgfw.efi
```

```
cp /mnt/EFI/ubuntu/grubx64.efi /mnt/EFI/Microsoft/bootmgfw.efi
```

```
cp /mnt/EFI/ubuntu/grubx64.efi /mnt/EFI/boot/bootmgfw.efi
```

Confirm `bootmgfw.efi` file is in proper locations with:

```
ls -l /EFI/boot
```

```
ls -l /EFI/Microsoft/boot
```

```
ls -l /EFI/ubuntu
```

Now the system loads Microsoft `bootmgfw.efi` which is actually ubuntu loader `grubx64.efi` and boots in to ubuntu.

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