

Film Technology for All Budgets

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Where to Buy?

B&H – best place to buy if they are an approved vendor for you; even if you don't buy from them, use their site to do research

Amazon offers great selection & prices; easiest for some schools to order from

Adorama also good

Often you can find the best deals on equipment **from a few years ago**, as companies try to clear their inventory – technology doesn't change fast enough to rule out older models as good choices.



Camera Bodies, Lenses and Kits

Cameras aimed at beginner and intermediate users will often come with a "**kit**" lens — one that's pretty good for most purposes.

Cameras aimed at pros will be sold "**body only**," *i.e.*, without a lens, so you'll have to factor that into your budget, too.

Lenses can **cost a lot**, even more than camera bodies
But if your budget allows, a variety of lenses will make your
films **look more professional if your students understand
how to use them**



	No/Low budget	Medium budget	High budget/Wishlist
<p>CAMERA</p> <p><i>“The best camera is the one you have”</i></p>	<p>SmartPhone w/good battery life and lots of storage space</p> <p><u>FILMIC PRO</u> app for IOS \$15 absolutely worth it!</p> <p><u>Smartphone lenses</u> Look for Moment, Moondog, Beastgrip brands</p> <p><u>7 Tips for Making Smartphone Cinematography More Cinematic</u></p> <p><u>How to Get Your Smartphone Ready to Make films</u></p> <p><u>10 Awesome Movies Made on Smartphones</u></p>	<p>DSLR camera (can also take photos, do double duty for your other needs)</p> <p><u>Canon EOS 800 D T7i Kit</u> \$899 Includes 18-55mm kit lens, extra battery, SD card for media storage</p> <p>(Buy additional lenses—wide angle, telephoto—as your budget grows)</p> <p>Media storage (<u>SD cards</u>, readers, <u>external hard drives</u>)</p> <p>Viewfinder app to visualize shots: <u>Magic Cinema Viewfinder</u> free</p>	<p>“Mirrorless” camera; body & lenses</p> <p><u>Canon M50 Mark II</u> \$699 w/kit lens <u>Panasonic Lumix</u> \$699-\$899 w/kit lens <u>Black Magic Pocket Cinema Camera</u> \$1344 body only; can use Canon EF mount lenses</p> <p>Really high budget: <u>Sony A7S III</u> \$3748</p> <p>Also must have: Extra batteries, Media Storage (SSD drives, CF cards)</p> <p>Viewfinder app to visualize shots: <u>Artemis Pro</u> \$30</p> <p>Optional: External Monitor, <u>Follow focus</u> \$79</p>

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<p>AUDIO</p> <p>“Bad audio is worse than bad picture”</p> <p>https://filmlifestyle.com/best-microphone-for-filming/</p>	<p>SmartPhone with external directional mic: <u>Rode VideoMic for IOS</u> \$99 comes with headphones and lightning connector</p>	<p>Mics that can plug into a DSLR: <u>Rode VideoMic w/boom pole</u> \$169</p> <p><u>Rode Wireless lavalier system</u> for documentary interviews \$199</p> <p>For “double system” filming: Separate handheld audio recorder with multiple mic inputs, such as: <u>Zoom H4n</u> \$270 <u>Tascam DR-05</u> \$180 Also need Headphones, SD cards, batteries</p>	<p>High quality boom mic that plugs into audio recorder: <u>Sennheiser MKE 600</u> \$359 <u>Boom pole</u> \$94 <u>Windshield blimp</u> \$184</p> <p>Multi-track field audio recorder such as <u>Tascam DR-70 4 track Portable audio recorder</u> \$299 <u>Zoom F8</u> \$1099</p> <p>Also need headphones, SD cards, batteries</p> <p>Studio mic for voiceovers and ADR (dubbing audio in post) Such as <u>MXL</u> \$100 or <u>Blue Snowball</u> \$80 with pop filter and boom arm <u>Shure MV7</u> \$249</p> <p>Audio interface (<u>Focusrite Scarlett</u>) \$180</p>

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LIGHTING	Natural light, phone flashlights, DIY reflectors - car sunshades, poster board	<u>Neewer LED 3 Light kit</u> \$221 <u>Softbox kit</u> \$109 <u>Reflectors set</u> \$35 <u>China lanterns/balls</u> \$20; great soft light for interior night scenes	Additional lights; <u>Ikan Lyra Kit</u> \$1899 <u>Impact Flag/scrim kit</u> \$149

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CAMERA SUPPORTS & STABILIZERS	<p>small tripod such as <u>Gorillapod</u> \$25</p> <p><u>Beastgrip clamp</u> \$55</p> <p><u>DJI Osmo gimbal</u> \$99</p> <p>Wheelchair, rolly chair</p>	<p><u>Magnus Fluid Head Tripod</u> \$140</p> <p>Camera Cage: <u>Neewer</u> \$70; for smoother handheld shots</p>	<p><u>Manfrotto tripod with removable fluid head</u> \$439 (to use with separate <u>Hi-hat</u> \$110 for low shots)</p> <p><u>Shoulder Rig</u> \$80</p> <p><u>Dolly</u> \$120</p> <p>Gimbals/stabilizers (<u>DJI Ronin</u>) \$550-800</p> <p><u>Jibs</u> \$120</p> <p><u>DJI Mavic drone camera</u> \$1000</p>

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<h1 data-bbox="44 125 253 169">EDITING</h1>	<p data-bbox="351 121 784 199"><u>Davinci Resolve</u> free Available for: Windows, Mac</p> <p data-bbox="351 255 836 288"><u>Avid Media Composer First</u> free</p> <p data-bbox="351 341 823 416"><u>iMovie</u> free, installed on Macs and iPads; store files on iCloud</p> <p data-bbox="351 469 828 543"><u>Windows Video Editor</u> - free on Windows computers</p> <p data-bbox="351 597 817 671"><u>Kinemaster</u> – free mobile app for IOS, Android, Chromebook</p> <p data-bbox="351 765 832 839">https://www.shopify.com/blog/best-free-video-editing-software</p> <p data-bbox="351 893 809 1054">Although editing on a Smartphone can be done, I don't recommend it unless it's your only choice.</p>	<p data-bbox="863 121 1754 239"><u>Adobe Premiere Pro</u> \$20 month/\$240/yr (also AfterEffects for visual effects, Audition for more audio capability, Photoshop)</p> <p data-bbox="863 248 1850 281">Many school Journalism and AV labs have Adobe Creative Cloud</p> <p data-bbox="863 335 1302 368"><u>Davinci Resolve Studio</u> \$295</p> <p data-bbox="863 421 1292 454"><u>Avid Media Composer</u> \$295</p> <p data-bbox="863 507 1151 540"><u>Final Cut Pro</u> \$299</p> <p data-bbox="863 634 1779 752">Computer (laptop or desktop) with as much RAM as possible (at least 16 GB) and lots of storage space (at least 250 GB); video files can be huge, esp. if you shoot in Ultra HD or 4K</p>	

ANIMATION	No/Low budget	Medium-High budget
<p>Stop Motion or Traditional Cel/Drawing Animation</p>	<p>SmartPhone or iPad with inexpensive app such as iMotion or Stop Motion Studio</p> <p><u>Tripod</u> mandatory for stop motion \$35-\$85 <u>Tabletop light kit</u> \$30</p> <p>If photographing traditional cels/drawings: <u>Overhead camera mount</u> \$35</p> <p>Materials to animate: clay, objects, etc.</p>	<p>DSLR camera; can be freestanding or connected directly to computer</p> <p>Computer Software for capturing and editing stop motion: <u>Stop Motion Studio</u> \$9.99 <u>Dragonframe</u> \$195</p> <p>Can also use Adobe Premiere, etc.</p> <p>Canon has app that controls shutter; or use remote <u>shutter release</u></p>
<p>Digital (Computer) Animation</p>	<p><u>Procreate</u> for iPad \$9.99</p> <p><u>Blender</u> free but hard to learn</p> <p><u>Open Toonz</u> free, easier to learn</p>	<p><u>Best Animation Software in 2022</u></p> <p>Adobe Animate Autodesk Maya look up education pricing</p>
	<p>Good animation needs great audio! Invest in a good mic for voiceovers.</p>	

Film Crew Positions

How many people do you need?

Bare Bones:

Director, Camera/Audio Operator

Medium Bones:

Director, Camera Operator, Audio Recordist/Boom Mic Operator, Production Assistants to help with lighting, etc.

Big Bones:

Director, Assistant Director, Slate/Script Supervisor, Director of Photography/Camera Op, Gaffers to set up lights, Audio Boom Op/recordist, PAs for various other needs

Could also add Hair/Makeup, Props, Transportation, Craft Services (food)



Consumables

- Media Storage
 - SD or CF cards, SSDs, external hard drives
- Batteries
 - AAA, AA, 9 volt, D-tap, camera-specific
- Craft Services/Catering
 - film shoots can be looong; you need to feed & hydrate the actors and crew



Music You Can *Legally* Use

[Free Background Music for Video](#) article

[Free Music Archive](#)

[Incompetech](#) – copyright free music

[YouTube Studio](#)

[SoundTrap](#) – make original music

[MobyGratis](#) – free Moby music

[Creative Commons](#) sharing & licensing



A few **resources**– more coming soon!

<https://nofilmschool.com/>

<https://www.studiobinder.com/>

[PBS Student Reporting Labs Tutorials](#)

Join the UIL Film Facebook group

Email hwhitu@neisd.net if you have any questions



What would you still like to know?

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Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

