

THE BRAIN BRAKE

CAMERA GUIDE · FOR VENKATESH · VERSION FIVE · 11.8.2026

***Read this first.** Everything below is a starting point, not a rule book. You are on the floor and I am not, so if you see a better lens, a better angle or a better way to light the room, take it. The only things I would ask you to treat as fixed are the six technical points in the section marked **What the animation needs**, because drawn elements are added on top of this footage afterwards and those six things are what make that possible. Everything else is yours.*

The film

Two minutes, for the Breakthrough Junior Challenge. Manan, fourteen, explains why fatigue may be set by the brain rather than by the muscle. He is on camera for the whole film, in his own bedroom, talking to us. Small hand drawn elements are composited onto his desk afterwards: a tiny runner, a cartoon brain in a tracksuit, a lever. He talks to them and eventually reaches into the drawing and moves the lever himself.

The tone is a curious boy showing you something he found, not a presenter. Warm, plain, unhurried. The room should feel like his room and not like a set.

Format

Resolution	4K UHD or better. We finish in HD, so the extra size is for reframing and for stabilising the desk shots.
Frame rate	25 fps. The animator delivers at 25 and it keeps everything in one timebase.
Codec	The best your camera gives. 10 bit if available, log if you are comfortable grading it. If in doubt, shoot a
Aspect	16:9, framed clean. No letterbox in camera.
Shutter	1/50. Normal motion. Nothing stylised.
White balance	Set it and keep it the same across both days. Please shoot a grey card or a white sheet of paper at the

What the animation needs

These six are the ones I would ask you to hold to. Everything drawn is added later by an animator in Zagreb, and each of these is something he cannot fix afterwards.

One. Lock off every frame where a drawn thing appears. The book frames and the desk top frames. No handheld, no drift, tripod only. If you want movement in those shots, a slow slide on a rail is fine as long as it is smooth and repeatable, but locked off is safest and it is only about eight shots.

Two. A clean plate for every one of those frames. Same lens, same position, same light, ten seconds of the empty desk with Manan out of shot. This is what lets the animator put a drawn object down convincingly. It costs a minute per setup and it is the single most useful thing you can give him.

Three. One dominant light direction, and keep it. The drawn elements have to cast shadows that agree with the room. A single soft key from a consistent side, ideally the window side, so the drawn brain standing on the desk can throw its shadow the same way Manan does. Flat, shadowless light is the one thing that would hurt us.

Four. Keep the desk surface clear where the drawn things stand. Roughly the centre third of the desk. A book, a pencil and a laptop are all in the story and should be there. Loose clutter in that zone makes compositing painful.

Five. Eyelines and tape marks. In five frames Manan reacts to something that is not there. We will mark the exact spot with a small piece of tape and rehearse before rolling. Please frame with that mark in mind, and give me a moment to set it.

Six. Handles. Two seconds before and after every take. Animation needs somewhere to start and finish.

Lenses, as a suggestion

The film has three distances and they can all be covered with three primes, or with one good zoom if you prefer to move fast in a small room. Shoot wide open enough to separate him from the room, but not so shallow that his eyes drift out when he moves.

24 to 35 mm	The room. Manan at his desk with the bed, the shelves and the posters behind him. This is the establish shot.
50 mm	The mid. Him at the desk, hands and book in frame. The workhorse for the dialogue.
85 mm	The closes. Faces carry this film and there are eight or nine close ups. Around f2.8 keeps both eyes sharp.
Macro or 100 mm	The desk top. The book, the pencil, his finger on the page, his hand gripping the lever that is not there.

If you would rather shoot the whole thing on one lens and move the camera, that is a legitimate choice and it would give the film a nice consistency. Your call.

Light

The room should look like daylight, even if we are making it. One soft source doing most of the work, from the window side, at about head height or a little above. Bounce or negative fill on the opposite side to keep some shape in his face rather than filling it flat.

For the desk top frames, get some light skimming across the surface so the wood has texture and so a drawn object standing on it has something to sit in. A hard edge somewhere in the frame helps the composite enormously.

Practicals in shot are welcome, a desk lamp especially, as long as they do not shift colour between takes. If the daylight changes across the day, close the curtains and own the light rather than chasing it.

Keep the two days matching. Day two is mostly desk work but it cuts against day one, so a photo of your day one setup will save us both time.

Sound

Every line matters and the judges listen. If you can, a lav on him plus a shotgun overhead, recorded externally with a slate at the top of each take. If it has to be in camera, get the microphone as close as the frame allows. Fan off, phones off, windows shut for takes.

Performance, since you will be closer to him than I am

He is fourteen and this is his own project, so he will be more nervous than he lets on. A few things that help: let the camera roll long after the line, ask him to explain it to you rather than to the lens for the first take, and print the one where he stumbles slightly and recovers. That take is almost always the human one and it is what wins this competition. Please do not push him towards presenting.

The two days

DAY	SETUP	SHOTS	NOTES	HRS
1	Room, wide	Scene 1 frames 1 and 6, Scene 2 frames 5 and 6, Scene 6 frames 1 and 4	The establishing look. Set this one carefully, everything else lives off it.	2
1	Room, mid	Scene 1 frame 4, Scene 2 frames 1 and 5, Scene 3 frames 3 and 6	Him and the desk together. Most of the dialogue.	2
1	Room, close	All close ups across scenes 1, 2, 4, 5 and 6	Nine or so. Faces carry the film. Take your time here.	2
2	Book, locked off	Scene 2 frames 1 and 2, Scene 3 frames 1, 2 and 5	Same position for all of them so the drawn room and runner sit in one space. Clean plates essential.	2
2	Desk top, low and overhead	Scene 3 frame 4, Scene 4 frame 3, Scene 5 frames 1, 3, 4 and 5	The hand on the lever is the most important shot in the film. Several takes.	2
2	Plates and pick ups	Empty desk from every angle used, room plate, anything we want twice	A minute per plate. This is what the animator works into.	1

Eleven hours across two days, both in Manan's room. If you think it can be done in less, or want the days split differently, say so and we will change it.

The four frames that need the most care



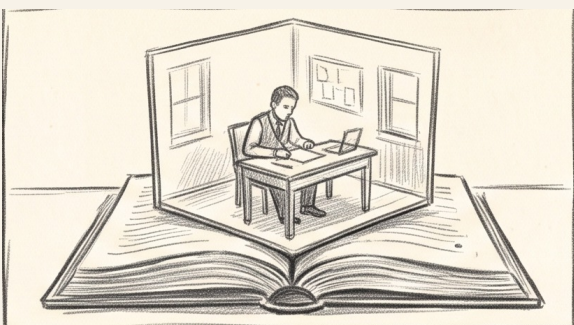
FRAME 5.4

Manan's real hand takes hold of a drawn lever. Tape mark, several takes, and a clean plate from the identical position. If one shot in this film has to be right, it is this one.



FRAME 3.2

A drawn runner leaves the book and lands on the desk. Locked off, and framed so the book and a good stretch of desk top are both in shot.



FRAME 2.2

A drawn room rises out of the open book. Nothing moves. Give the animator a generous, still, well lit frame of the open pages.



FRAME 1.5

The question of the whole film. Close, clean, and let it run.

The full board, all thirty six frames with the dialogue and a description of each, is in the shooting guide that goes to Manan. Ask me for it and I will send it across. And again, none of the above is precious. Bring what you see.