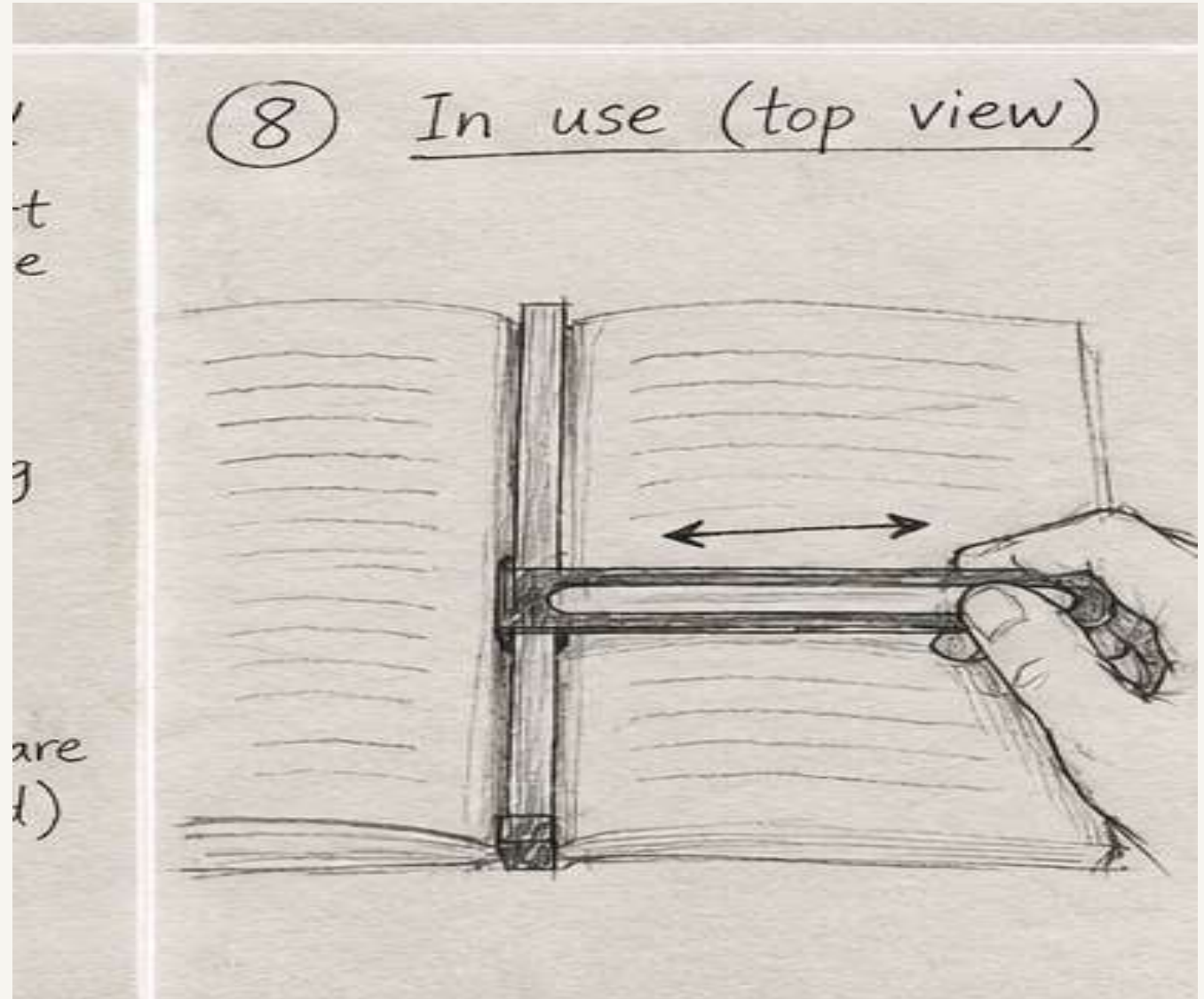


Dyslexic-Ruler Project

How my idea developed from Version 0 to the Version 1 prototype I am testing now — and where I want to take it next.

I started this project because I wanted to explore a simple way of helping readers stay on the correct line without constantly having to reposition a normal ruler. I have gone through several designs, built working prototypes and changed the mechanism whenever I found a practical problem.



Why I Started Working on This

While reading, some students can lose their place when moving from one line to the next, skip or repeat a line, or find it difficult to focus when a lot of text is visible at once.

A normal ruler or reading strip can help cover some of the surrounding text, but it still has to be moved by hand and can easily tilt or shift away from the line.

That made me wonder whether I could make a reading guide that stays mechanically aligned with the page and moves down in a controlled way. My aim is not to claim that the ruler solves dyslexia; I want to find out whether the design is actually useful and practical for students who have difficulty with line tracking.

Version 0 — My First Working Prototype



Version 0 was my first attempt to turn the idea into something physical. I used a vertical guide and a horizontal reading window so that the window could move down the page while staying connected to the guide.

I also experimented with magnets to hold the parts together. At this stage, I was mainly trying to answer one question: can I make the reading window move line by line without the whole ruler having to be picked up and repositioned every time?

Building this version was useful because it showed me that the basic mechanism was possible, but it also exposed several problems that I could not really see on paper.

What Version 0 Taught Me

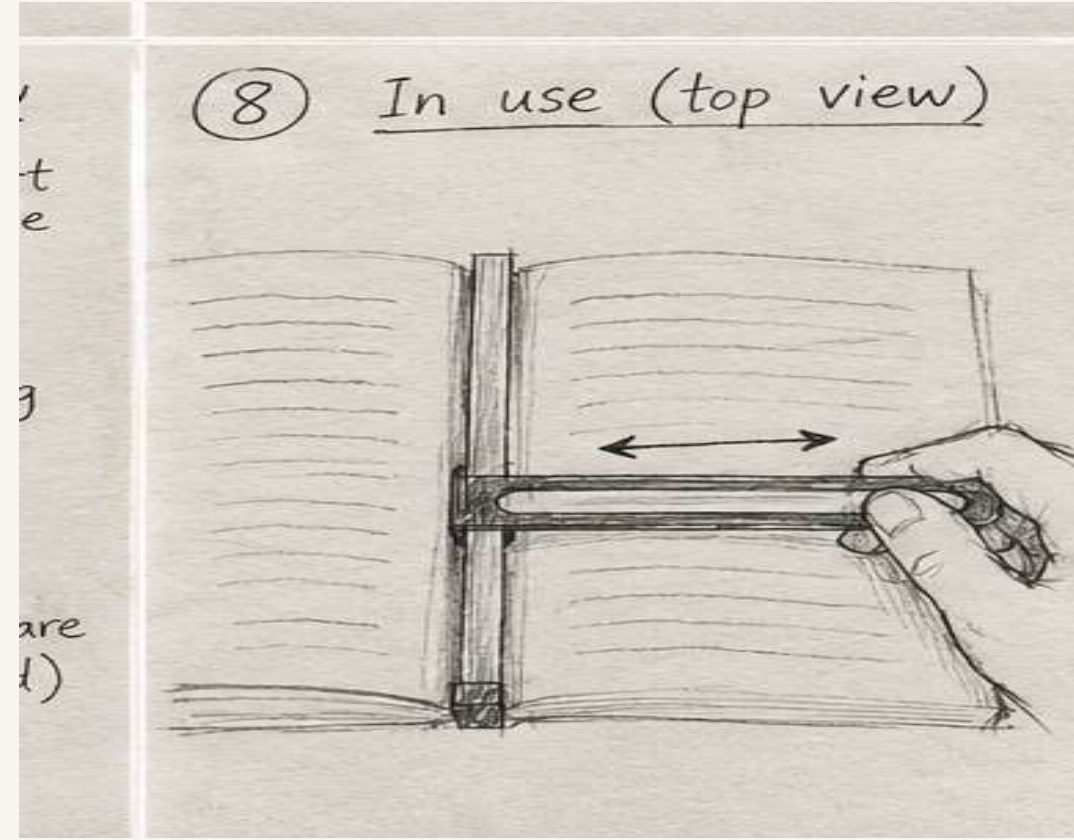
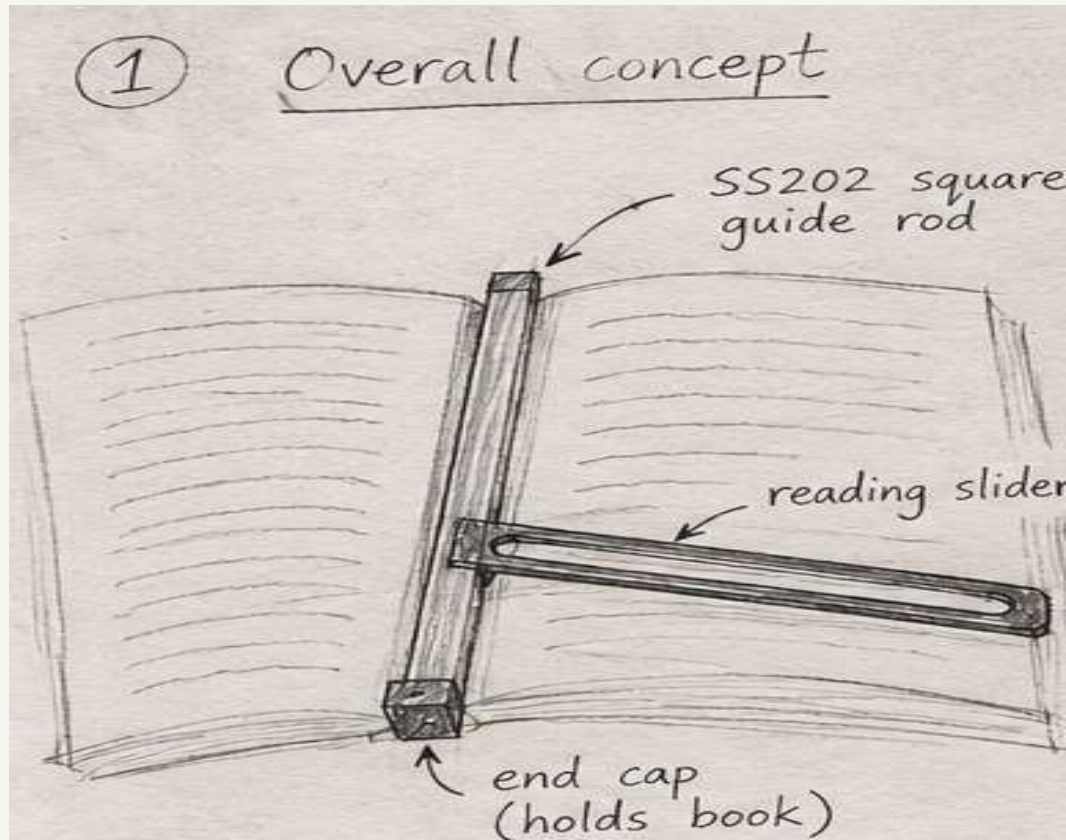


When I handled Version 0, I realised several parts needed improvement.

- The vertical member was quite thick and took up too much space near the page margin.
- The magnets were not strong enough to hold the mechanism as securely as I wanted.
- The horizontal slider did not move as smoothly as it needed to.
- The reading window was fixed, so it could not easily adapt to different font sizes or the amount of text a student wanted to see.
- I also wanted a wider working area so the ruler could be used with larger books and worksheets.

Instead of treating these as failures, I used them as my design requirements for Version 1.

Version 1 — Redesigning the Mechanism

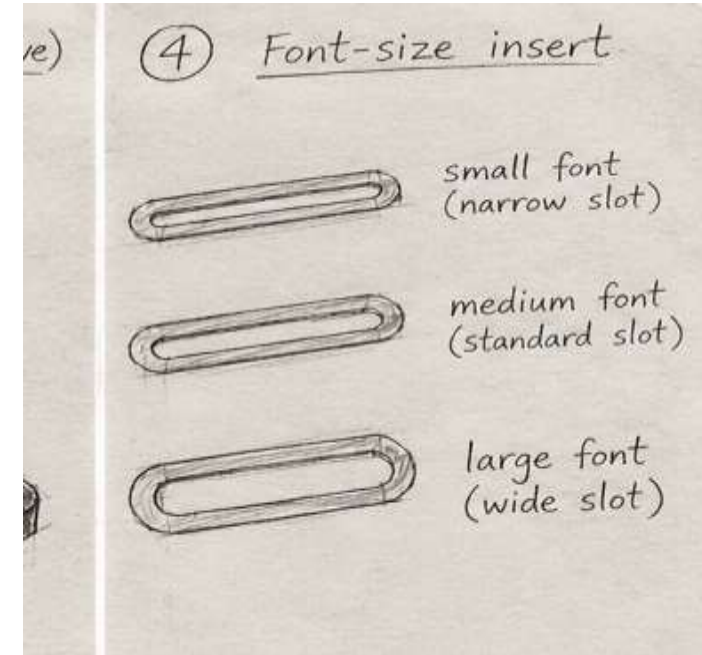
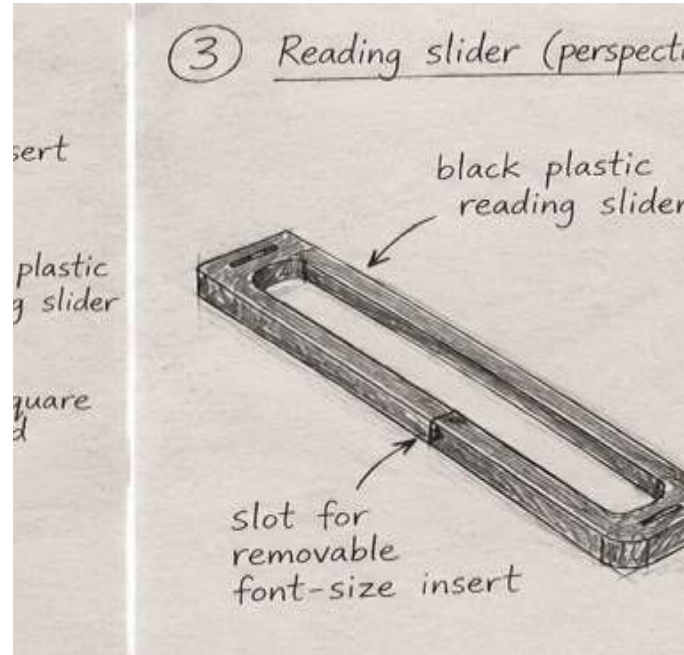
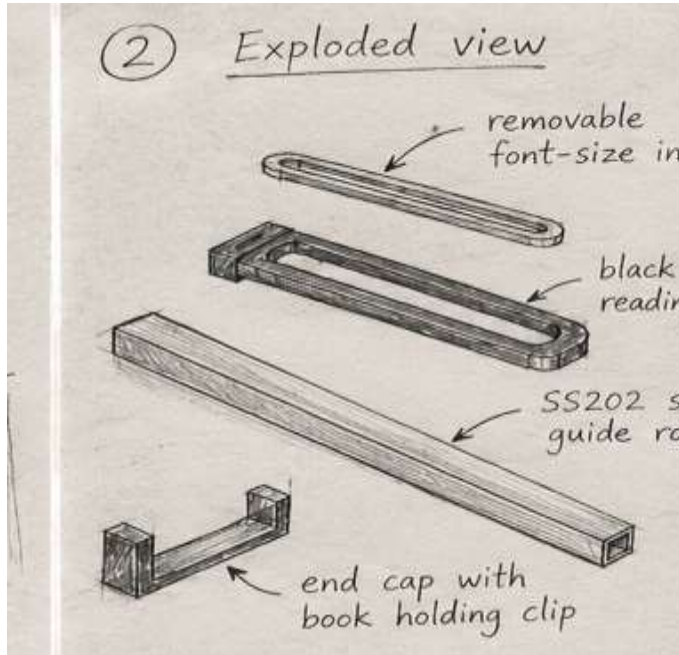


For Version 1, I moved away from the magnetic arrangement and started exploring a simpler guided mechanism.

The main idea was to use a fixed guide rod with a reading slider that stays attached to it. This would give the slider a clear path to follow and reduce unwanted sideways movement or rotation.

I made several rough sketches before deciding how the slider, guide rod and book-holding parts should fit together. At this stage I was trying to keep the design simple enough to manufacture, light enough to carry and easy enough for a student to use independently.

Version 1 — Developing the Reading Window

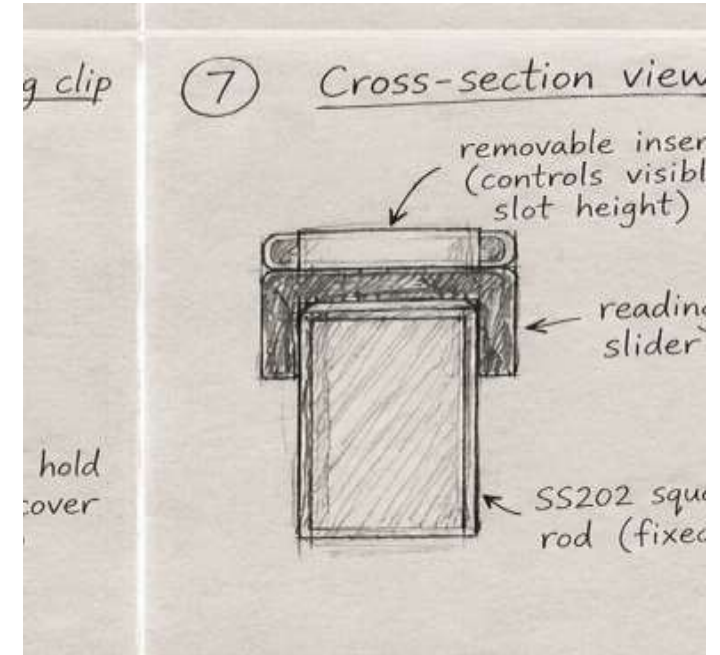
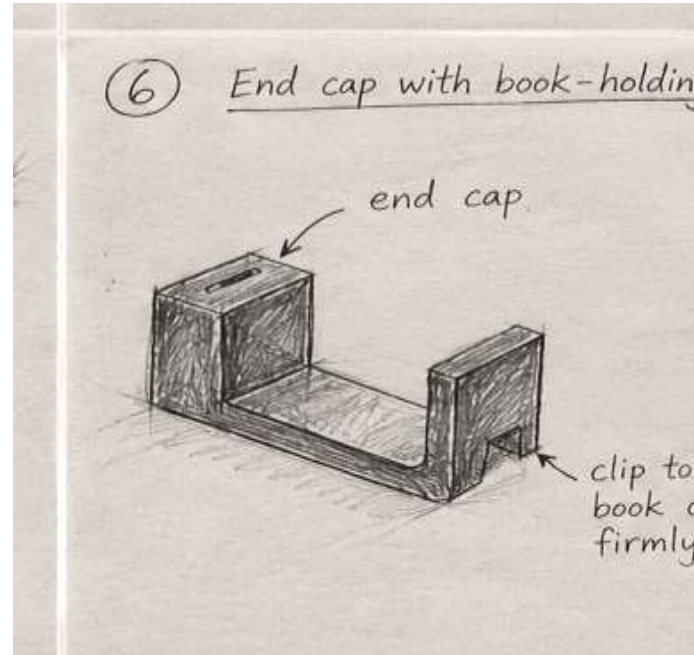
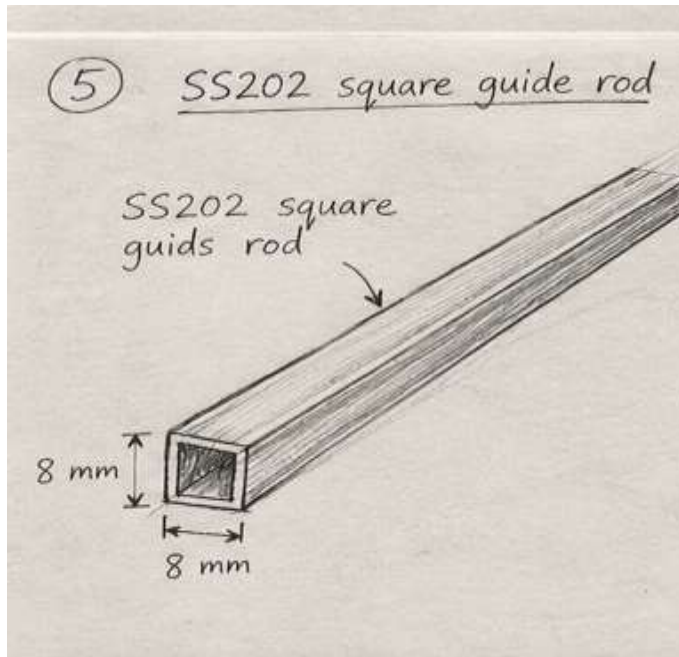


One of the things I wanted to improve from Version 0 was the reading window itself.

Instead of making one fixed opening, I designed the slider so that a removable insert could change how much text is visible. The idea is that different inserts could expose a smaller or larger area depending on the font size and the student's preference.

I also separated the parts in an exploded sketch because it helped me understand how the slider, insert, guide rod and end cap would actually be assembled. This was the point where the design started becoming much closer to something I could physically build.

Version 1 — Making the Guide More Stable



I then focused on how to keep the slider straight while it moves.

I explored a square guide rod because its shape can help prevent the slider from rotating around the guide. I also worked on the end cap and book-holding clip so that the guide could stay in position while the student moves the reading window.

The cross-section sketches were useful because they made me think about small practical details — how tightly the slider should fit, where friction might occur and how the removable insert would sit inside the reading window.

Version 1 — The Prototype I Am Testing Now



This is the version I have now built and the one I am bringing to teachers for feedback.

It uses an SS202 square guide rod, a sliding reading window, a removable font-size insert and an end cap with a book-holding clip. The square rod is meant to keep the slider aligned, while the insert allows the visible reading area to be changed.

At this stage I do not want to assume that the design works well just because I have built it. I want to see how it behaves with real books and worksheets, whether students can move it comfortably and whether teachers notice practical problems that I have missed.

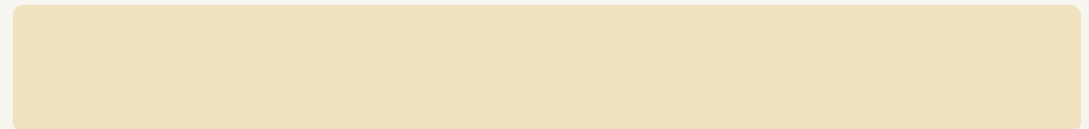
Version 1 — What I Would Like You to Observe

When a student tries the prototype, I would really value feedback on the way it behaves during normal reading.

Please look at whether the student is able to stay on the line more easily, whether the slider moves smoothly, whether the visible window feels comfortable, and whether the student can use the ruler without needing constant help.

I would also like to know about the practical side: Does the clip hold the book properly? Does the guide get in the way? Does it work with different books and worksheets? Is there anything about the size, movement or shape that you would change?

I am more interested in these observations than in whether the prototype looks polished.



How I Would Like the Prototype to Be Tried

I would suggest a short and simple trial rather than asking the student to use it for a long period immediately.

1. Let the student read a short passage in the way they normally would.
2. Show them how Version 1 moves and let them try it with similar reading material.
3. Give them a few minutes to get used to the slider before judging it.
4. Observe line tracking, repeated repositioning, ease of movement, comfort and how independently they use it.
5. Please record your observations in the Google feedback form linked in this presentation.

The purpose is not to prove that the ruler improves reading ability. I am trying to understand whether the design is useful enough to keep developing and what I should change next.

Version 2 — My Proposed Next Design

Concept 2 — Height-Adjustable Reading Aid



instil^{motion}
The Engagement Company

I have already started thinking about what a future Version 2 could look like. I have built this version and will be available for testing in a few days.

- The proposed design uses one stainless-steel guide rod supported by two height-adjustable hinged ends. The supports are intended to accommodate books of different thicknesses, while the book-holding pads should keep the reading material more secure. The reading slider would travel along the central guide rod.
- This design may solve some of the limitations of Version 1, especially when using thicker books, but it also introduces more parts, hinges and fasteners, so it could become heavier and more complicated.
- That is why I do not want to move directly to Version 2 without feedback. What I learn from teachers and students using Version 1 will help me decide which improvements are actually worth carrying forward.

What I Changed in Version 2

Concept 2 — Height-Adjustable Reading Aid



instil^{motion}
The Engagement Company

Version 1 showed me that the main problem was not the reading slit itself — it was keeping the ruler fixed and stable while still allowing it to move easily.

- I changed the vertical member to a metallic guide supported by two stands. The stands go underneath the book, so the ruler stays in position instead of depending on a clip at the edge.
- The horizontal member still has the reading slit and glides from top to bottom along the vertical member.
- The important change is that the base is more secure, but the ruler is not permanently fixed to one page. I can shift the book underneath it when I move from the left page to the right page.

For me, Version 2 is mainly about solving the fixing and stability problem without losing the freedom of movement that the device needs.

How I Use Version 2

The movement is simple once the ruler is placed over the book.

1. I place the book over the two support stands so that the metallic vertical member stays beside the page and the base is held securely underneath.
2. I read the left page by moving the horizontal member from top to bottom. The slit helps me focus on one line or a small section of text at a time.
3. When I finish the left page, I shift the book underneath the device so the ruler is positioned for the right page. I then move the horizontal member from top to bottom again.
4. After both pages are finished, I lift the vertical member, turn the page and repeat the same process.

The idea is that I do not have to keep picking up and realigning a normal ruler after every line.

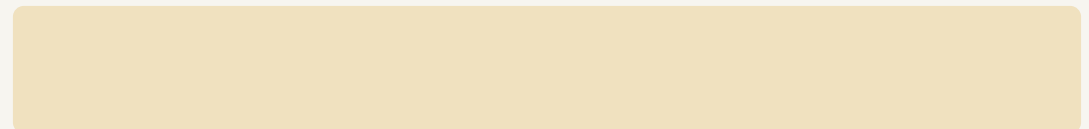
What I Would Like Teachers to Observe

When a student tries Version 2, I would really value feedback on whether the changes actually make the device easier to use in normal reading.

Please observe whether the two support stands keep the ruler stable, whether the horizontal member moves smoothly from top to bottom, and whether the reading slit helps the student stay on the correct line.

I would also like you to notice the page-changing process: Is it easy to shift the book from the left page to the right page? Can the student lift the vertical member, turn the page and continue without needing constant help?

Most importantly, does Version 2 feel more secure than the earlier version while still being freely movable? If anything feels awkward, slow or distracting, I would like to know that as well.



Kindly find the Google Form link to give your valuable feedback.

<https://docs.google.com/forms/d/e/1FAIpQLSfJi8g2KSWMqtGydU-nlEOjQ8LE4u6S0ii5AD7bwHJbK12GWQ/viewform?usp=publish-editor>

<https://docs.google.com/forms/d/e/1FAIpQLSf7HqnPKpRb3h3G6Y7blmkPWvLhyUFOqxSWWop0uZA5xH-ixg/viewform?usp=publish-editor>

Link for the YouTube video for assistance in use and installation -