

Foldamatics

Automated T-shirt Folder

DESIGN DAY



OUR MISSION

Our mission is to create an automated t-shirt folder that is safe, accessible, and user-friendly for children with motor limitations.

PROBLEM

What?

Children with motor disabilities often struggle with simple tasks like folding t-shirts, which can be frustrating and time-consuming for them and their caregivers.

Solution

We created an automated t-shirt folder that uses mechatronics to fold t-shirts quickly, easily, and safely.

Why now?

With the increasing demand for automation and smart home devices, there is a growing need for cheap but effective devices that can help individuals with physical disabilities to perform daily tasks with ease and efficiency.

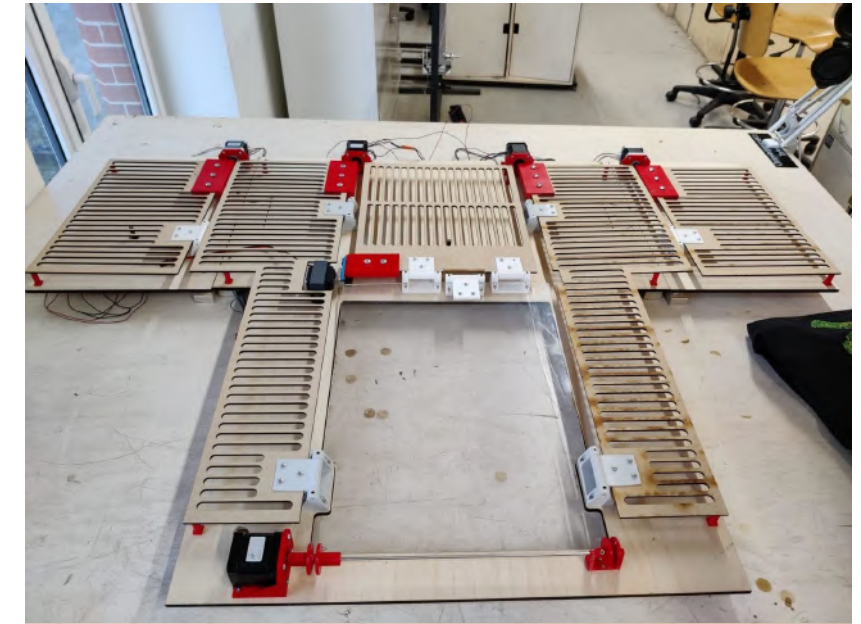
CURRENT SOLUTIONS AND ALTERNATIVES

User Requirements

- 1) The automated t-shirt folder is easy to install.
- 2) The automated t-shirt folder is not built with cardboard pieces.
- 3) The automated t-shirt folder reduces the movement of hands.
- 4) The automated t-shirt folder remains stationary during its use.
- 5) The automated t-shirt folder can be cleaned with a wipe.

Current Solutions and Alternatives

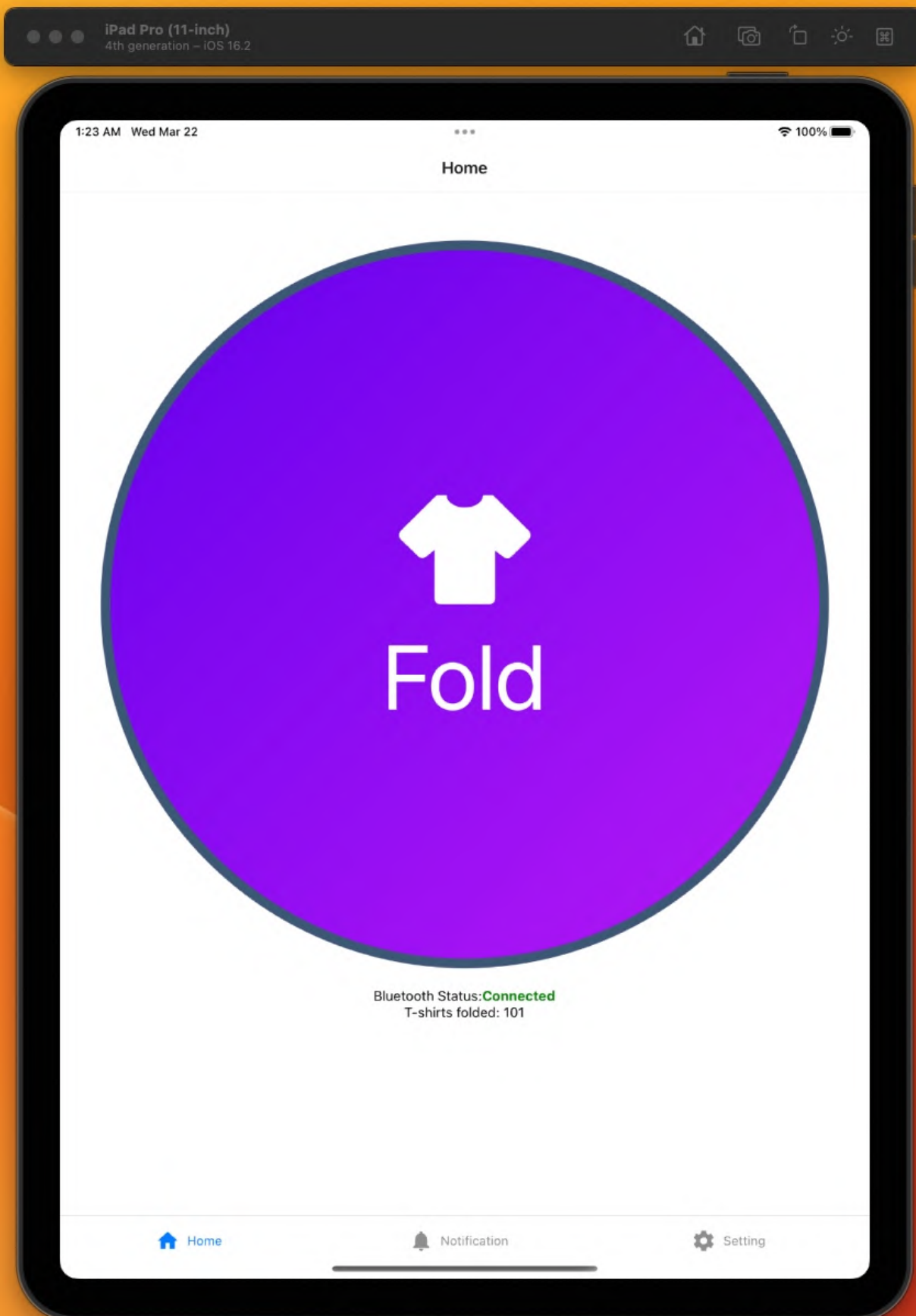
- 1) Arduino Powered Robot
- 2) Cardboard Automatic Clothes Folding Machine
- 3) Super expensive T-shirt folder which costs \$2900



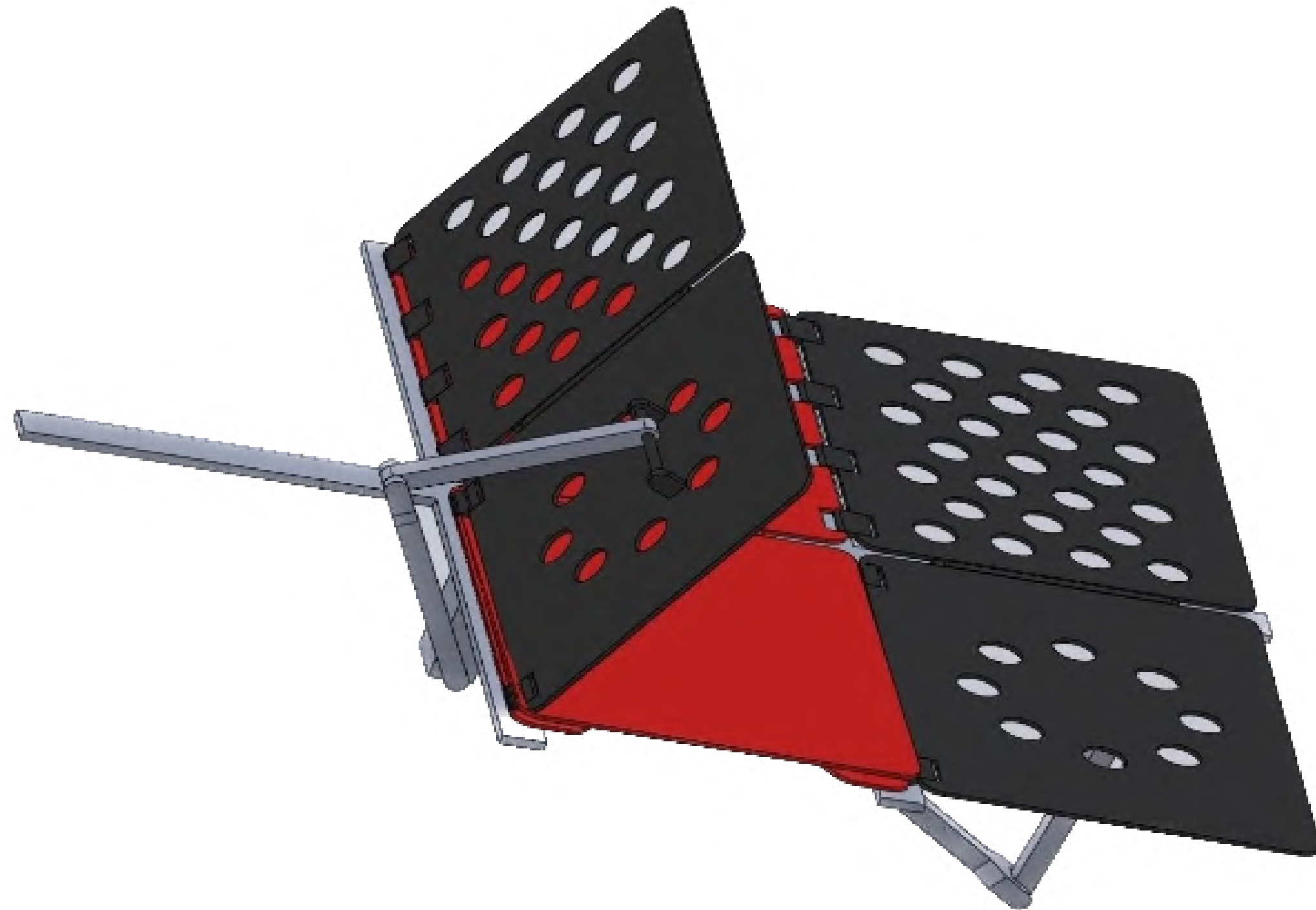
WHY US?

What makes our design better?

- Automated t-shirt folder is durable and strong, made with frame with aluminum bars.
- Automated t-shirt folder is more secure as all electronic components are held within t-shirt folder.
- Automated t-shirt folder is modular, could easily pull apart t-shirt folder and put it back together.
- Automated t-shirt folder is more accessible as it could be activated with an mobile app through a Bluetooth connection.
- Automated t-shirt folder is portable compared to the other alternatives
- Has a frame made with Aluminum which is known to be recyclable and more sustainable than plastic.
- Has panels made with Acrylic, which can be recycled as well.



FINAL PROTOTYPE



Check out our final
prototype in action!

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Thank you!