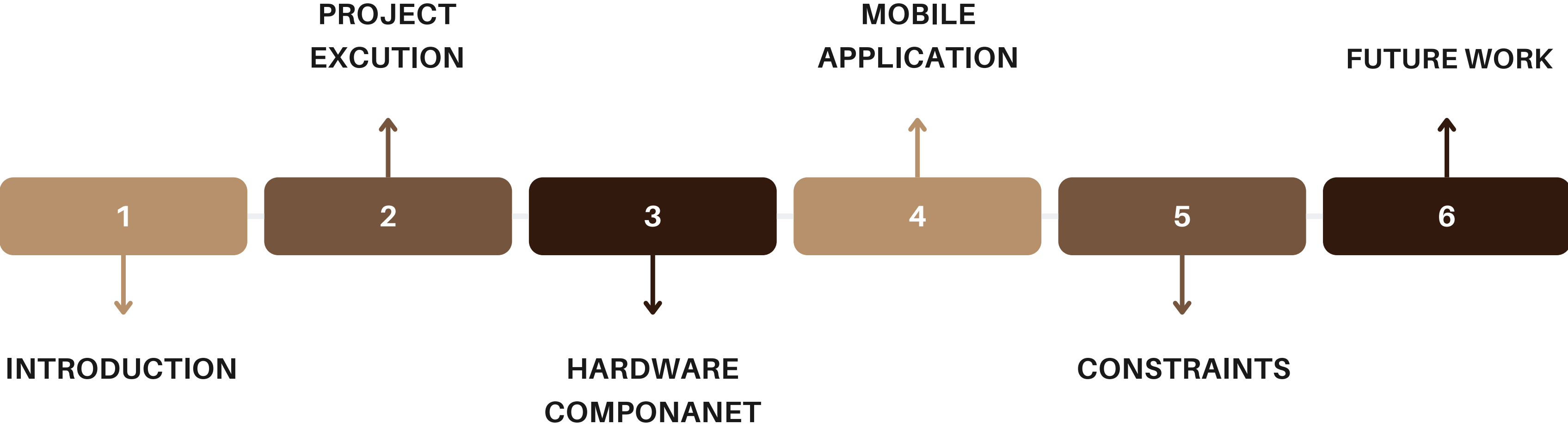




Clothes Printing Machine

AGENDA



INTRODUCTION

PROBLEMS:

- Screen printing takes a lot of work and time for big orders.
- It's hard to mix different colors in printing, so you can't customize much.
- Printing isn't very advanced, so it's not easy to make unique designs.

OBJECTVS:

- Mix colors better.
- Print faster and easier.
- Print accurately.
- Mix and print automatically.
- Easy control panel and phone app for design choices
- Improve clothes design.

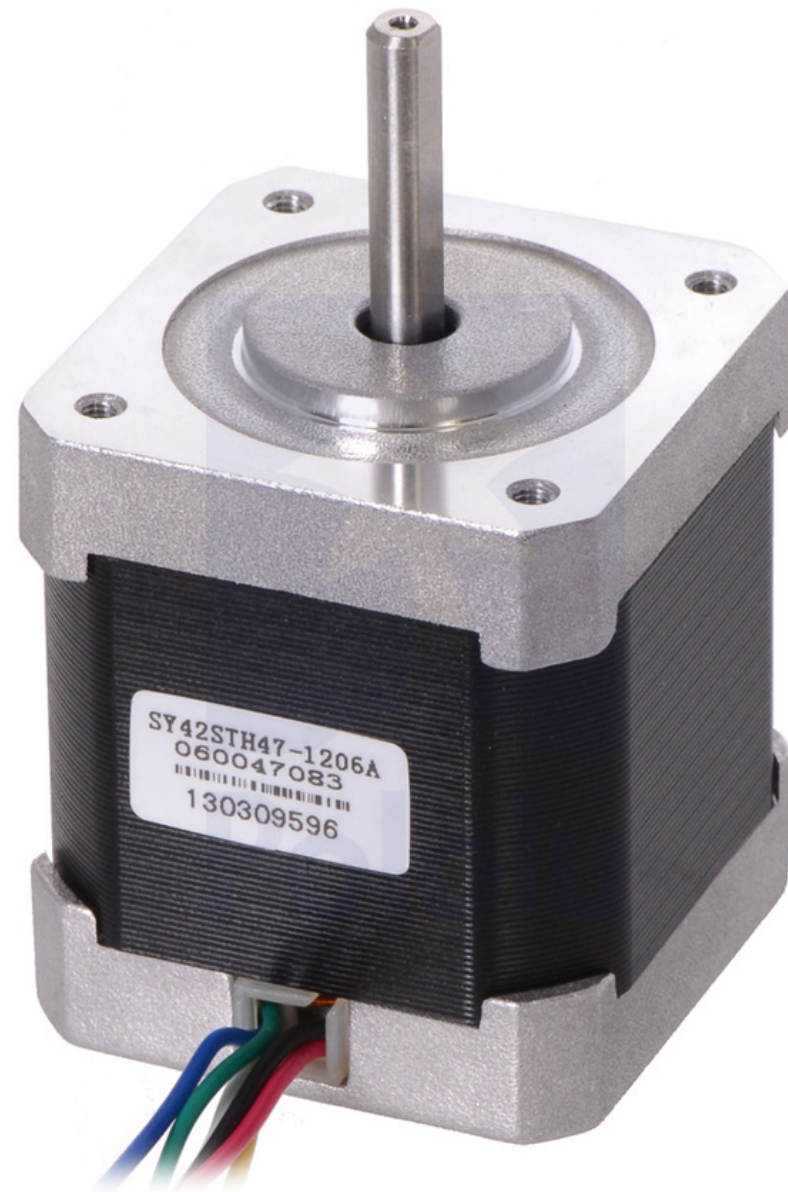
Project Execution

Initial Ideas:

Write this one pls my mind goes blank thinking of it

Hardware Component

Motors and Drivers:



5 Stepper motors



5 Drivers

Motors and Drivers:

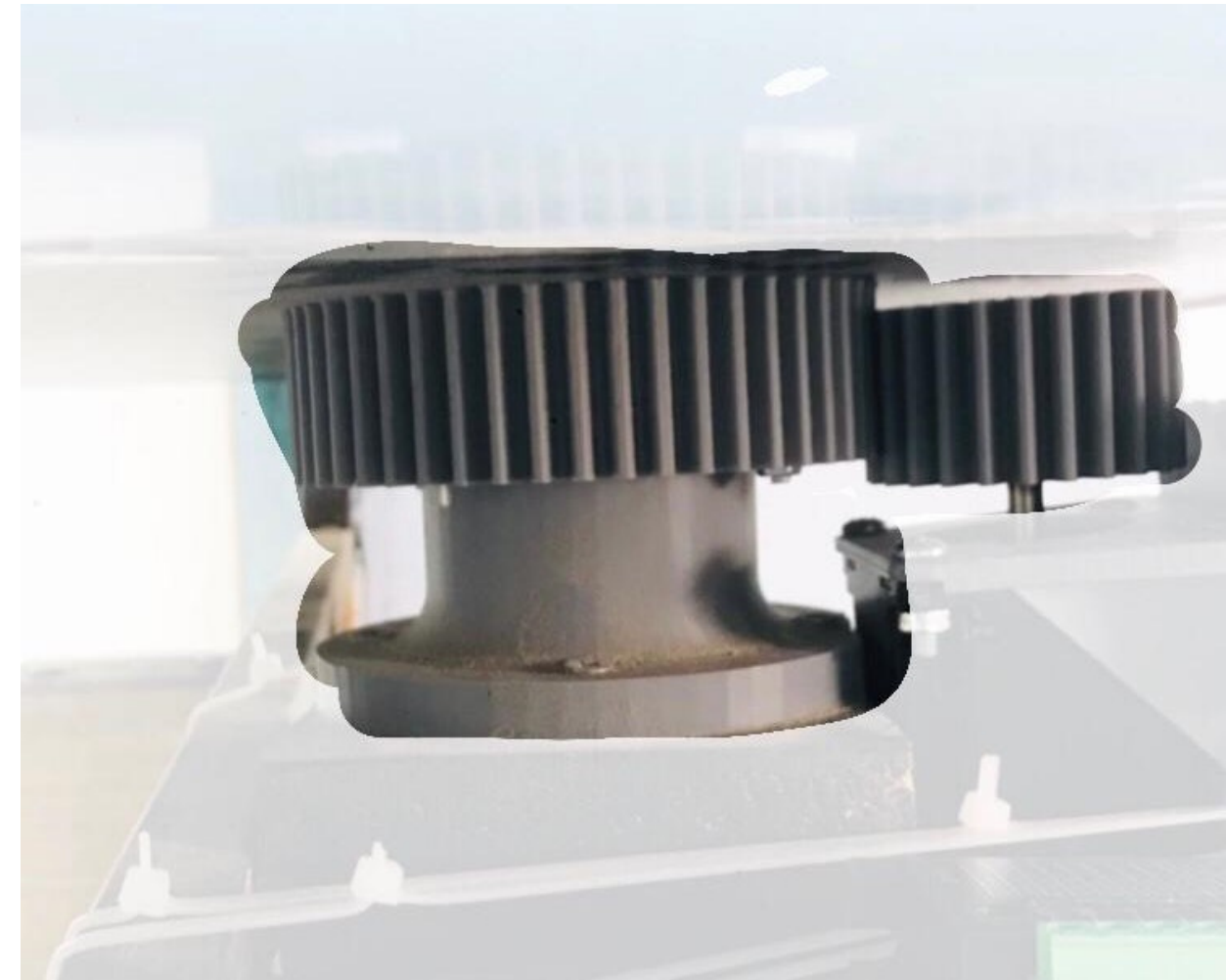


Dc motor

CNC XY LINEAR and Circular MOTION

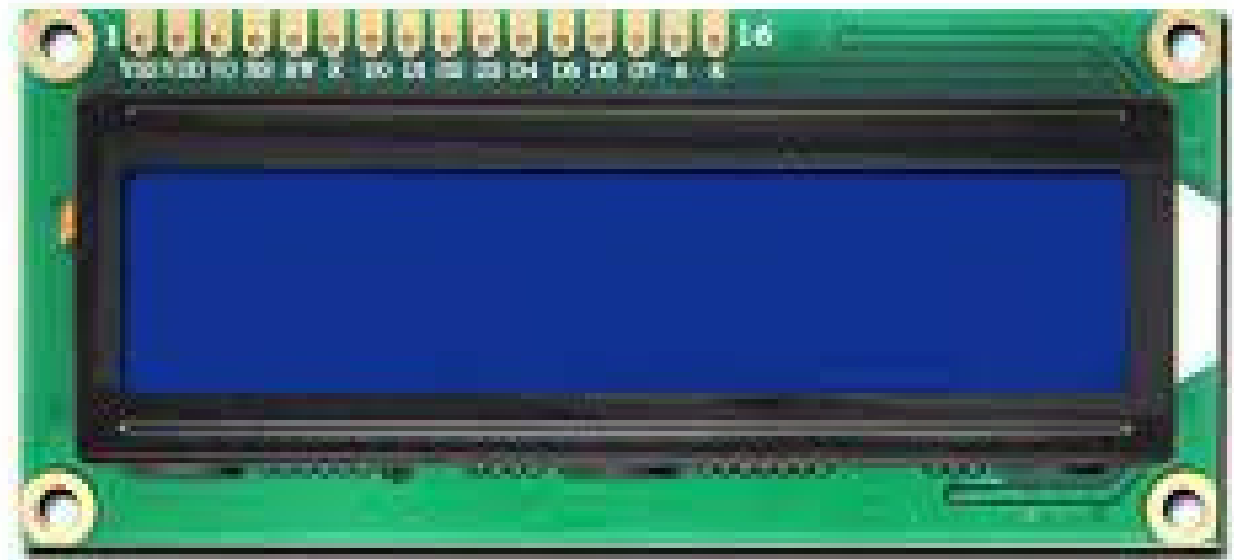


XY LINEAR MOTION

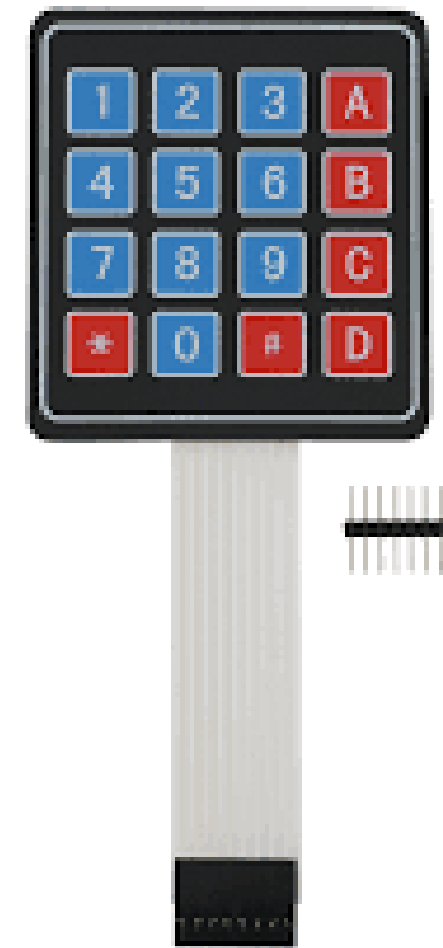


Circular MOTION

LCD AND KEYPAD



LCD



KEYPAD

PUMPS

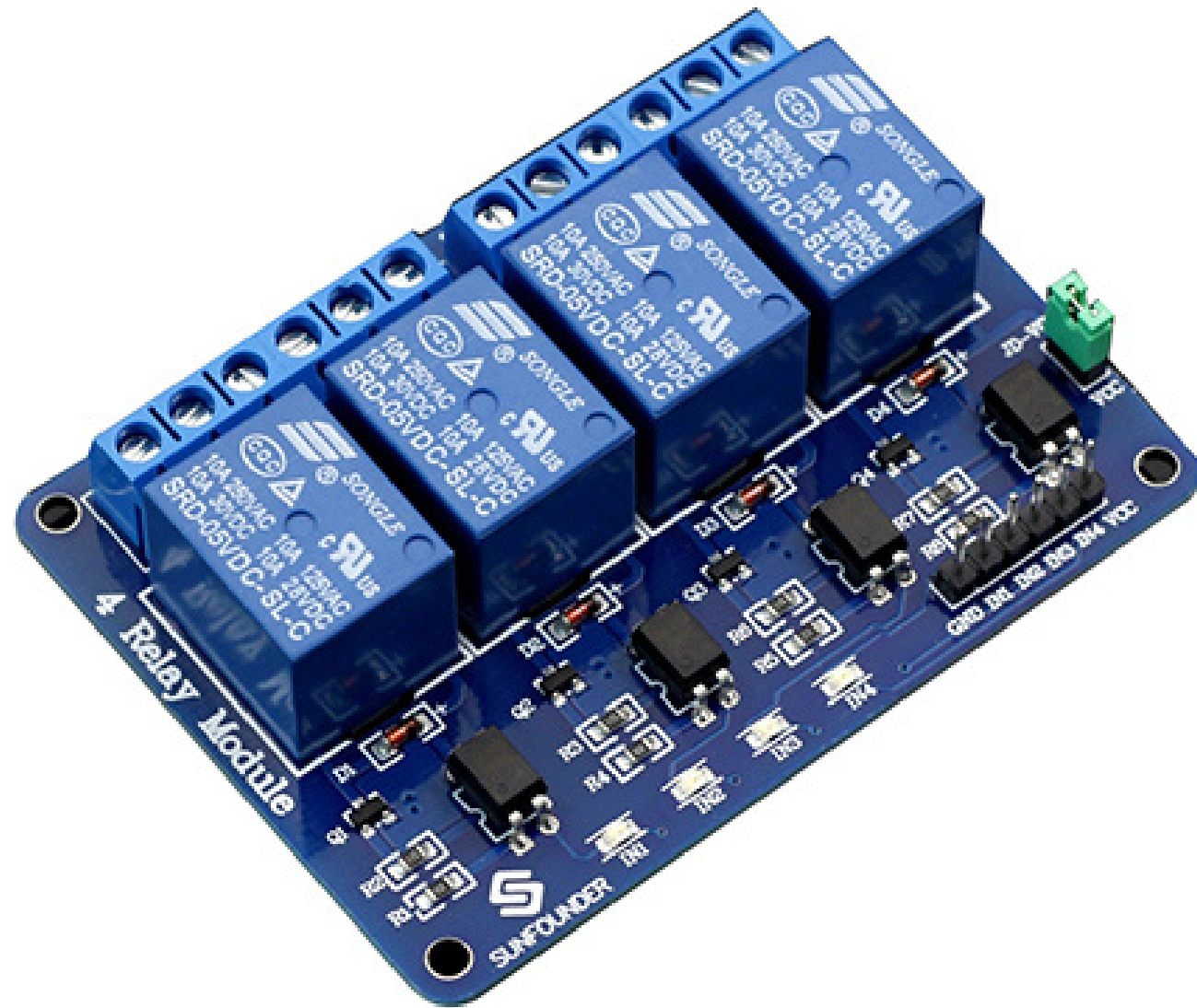


4 Peristaltic Pump

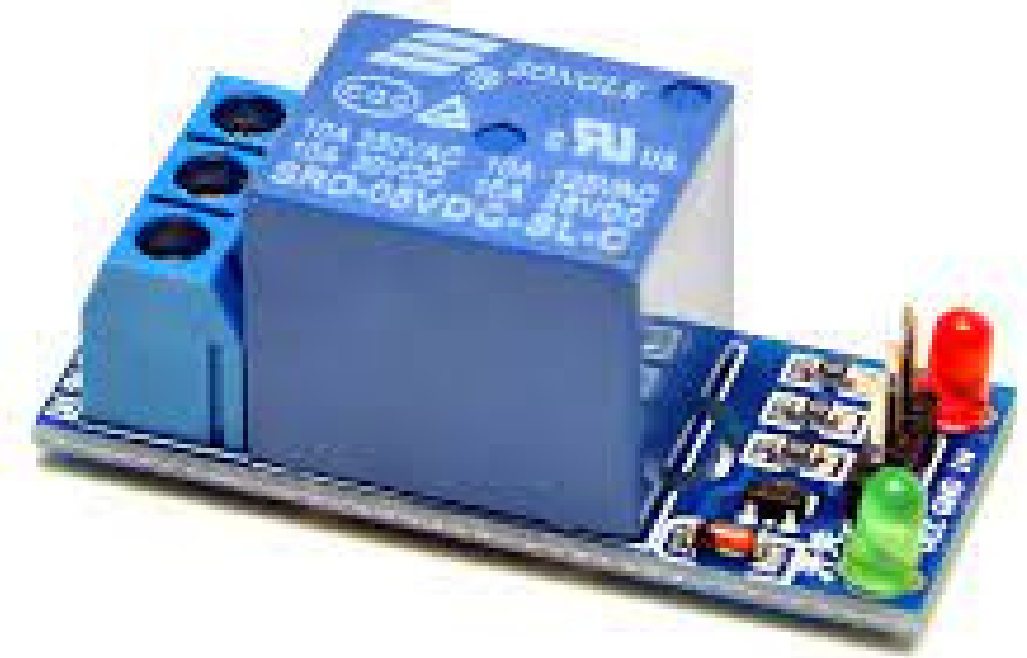


Water Pump

Relays

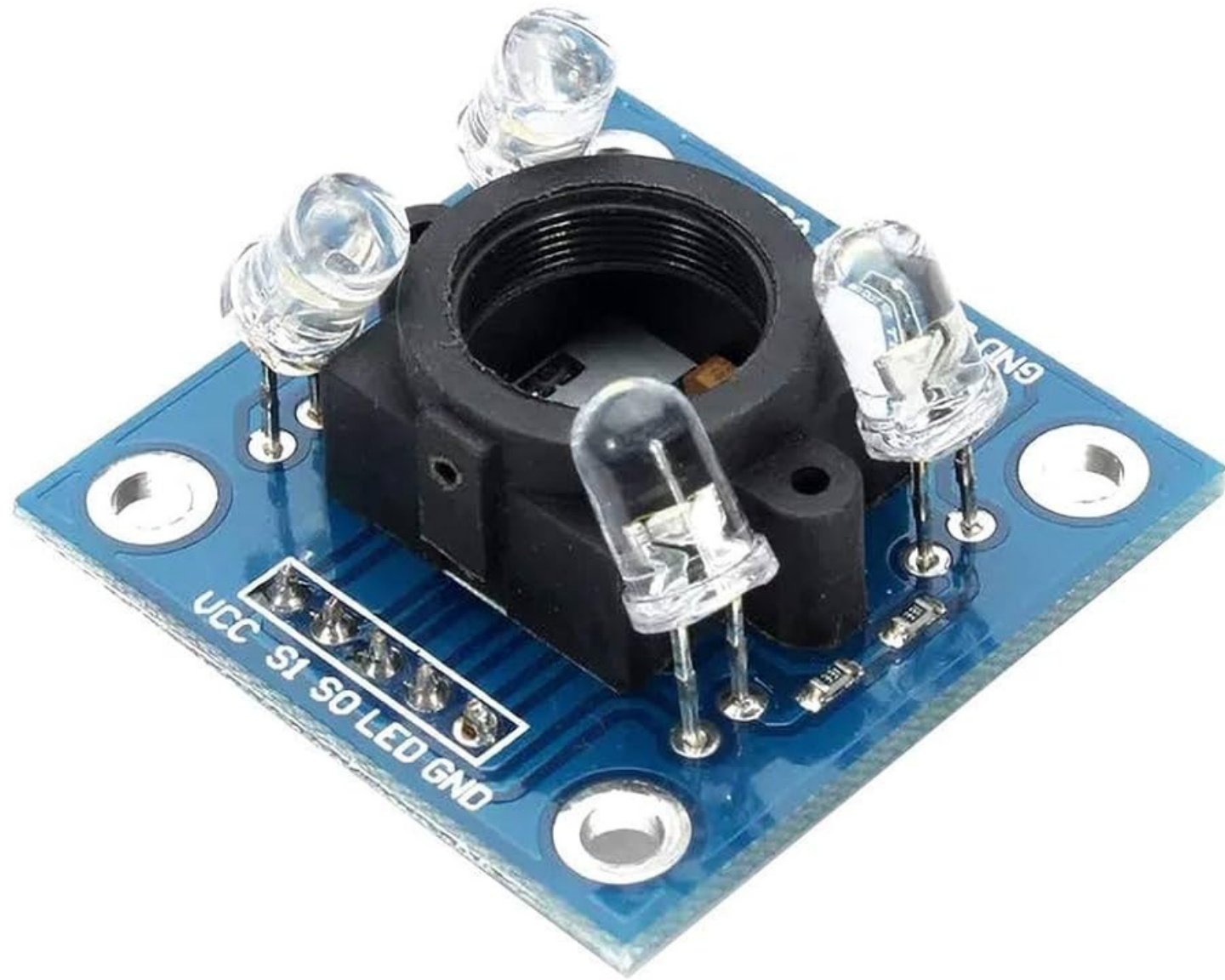


4 channel relay module

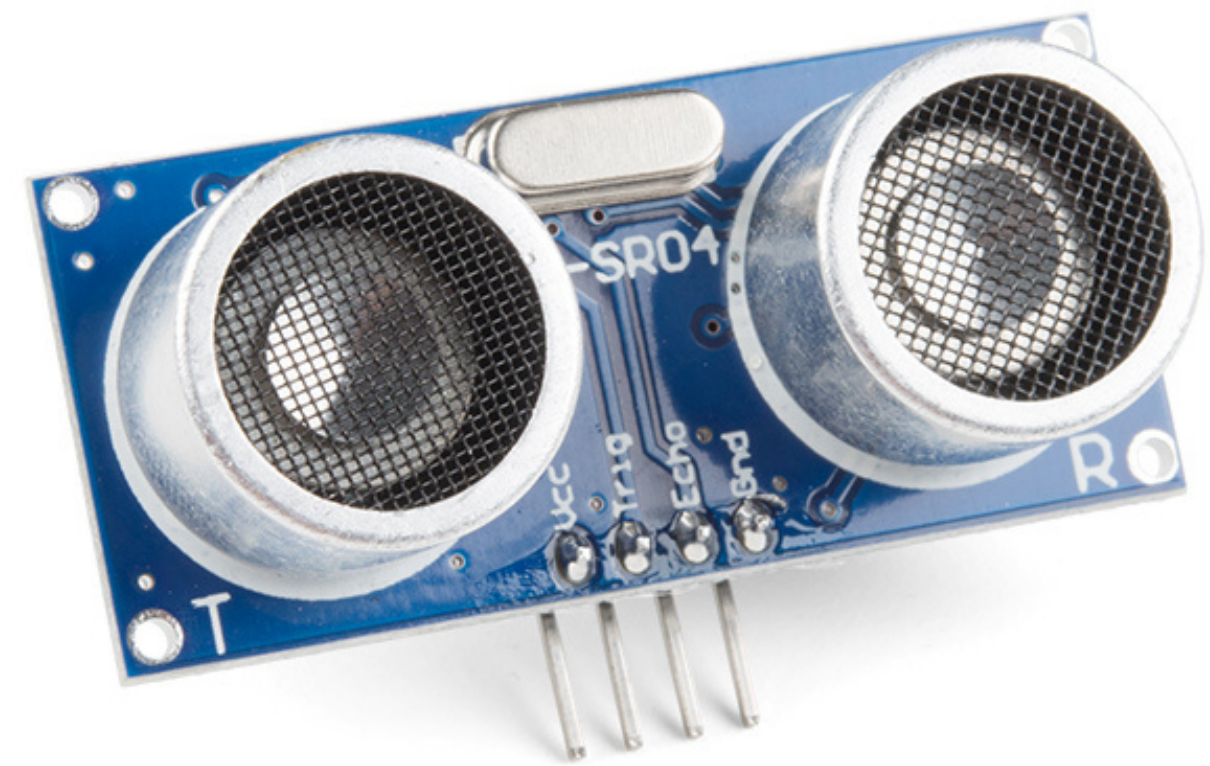


1 channel relay module

Sensors

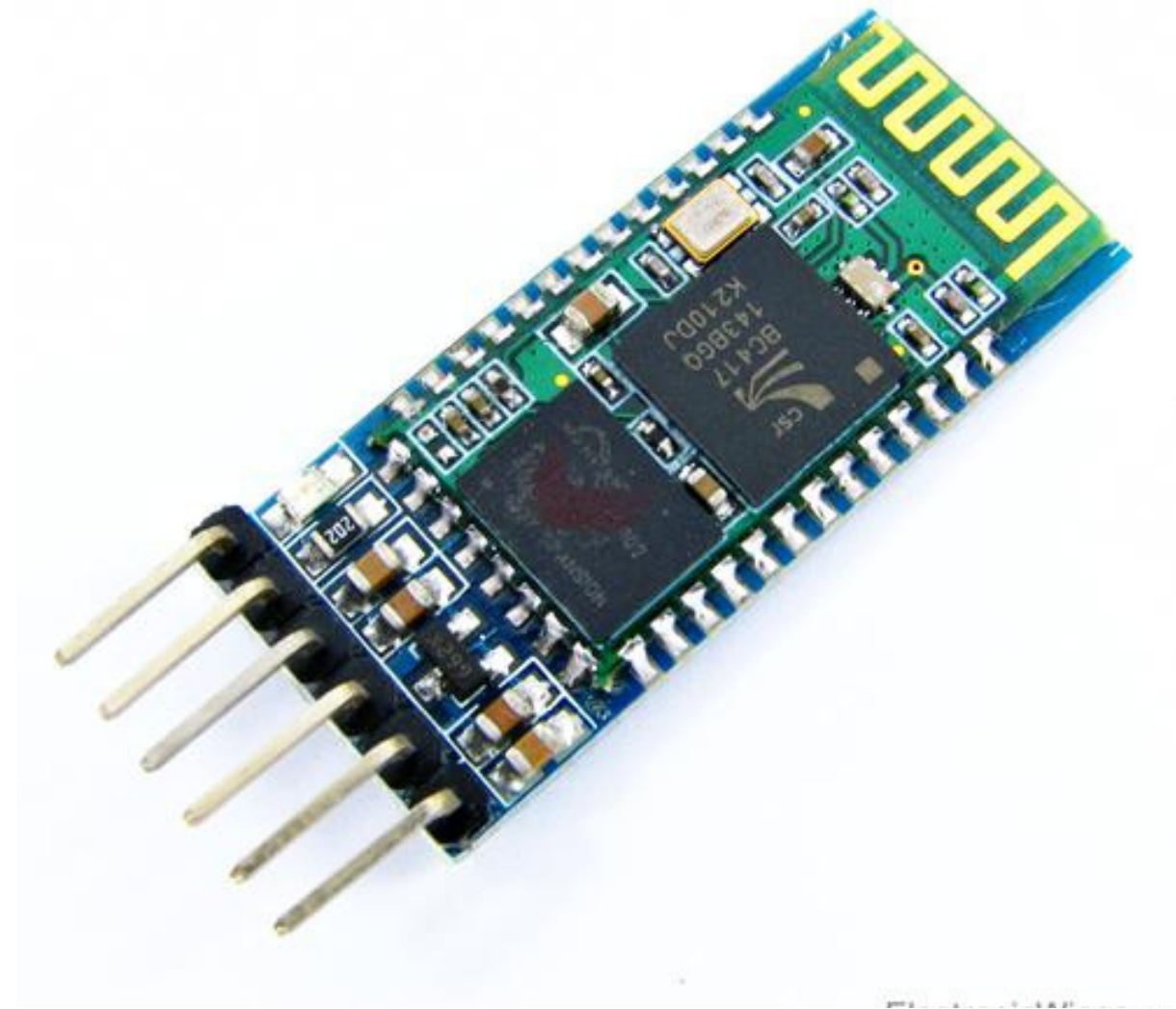


Color Sensor



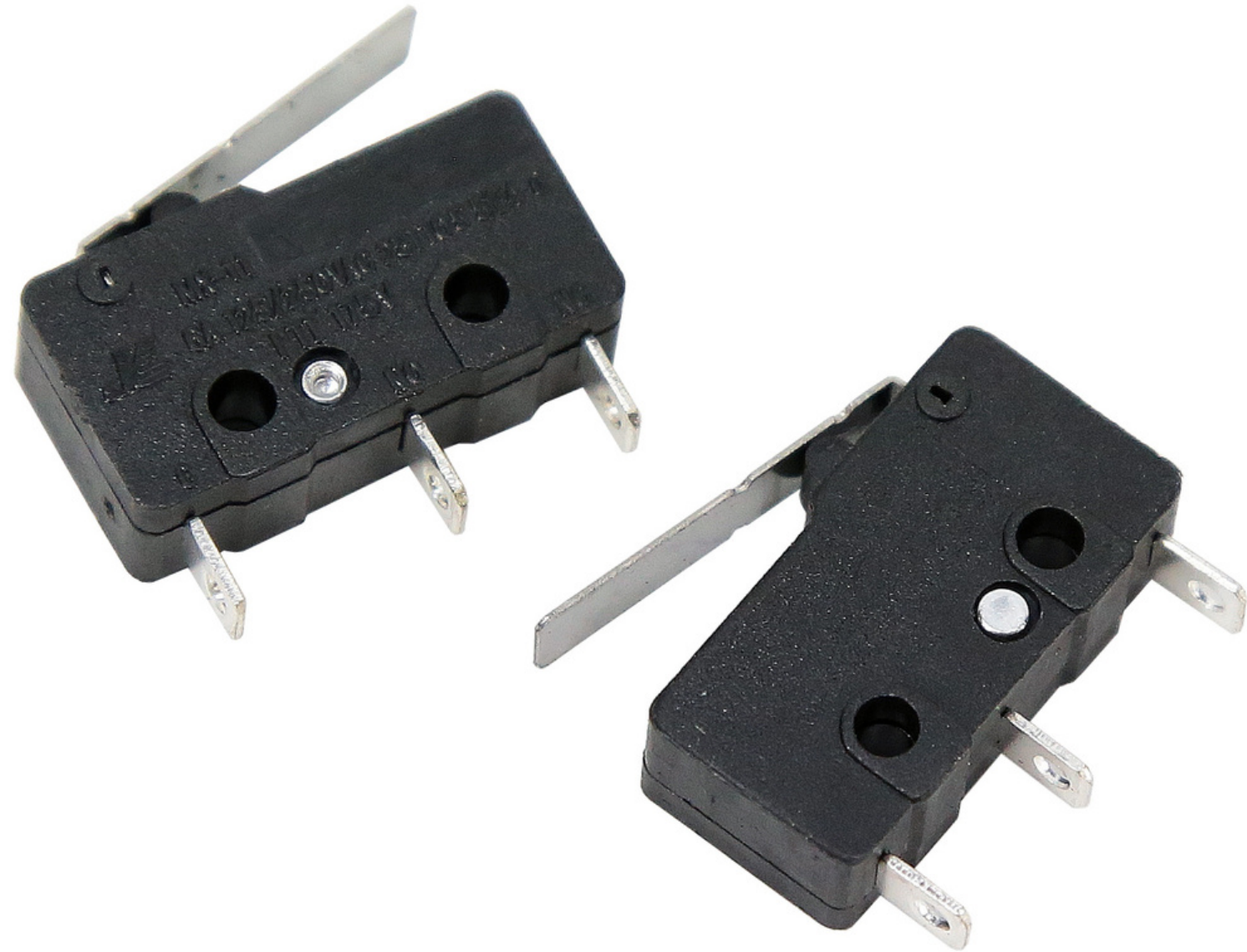
Ultrasonic sensor

Bluetooth Module



Bluetooth Module

Switches



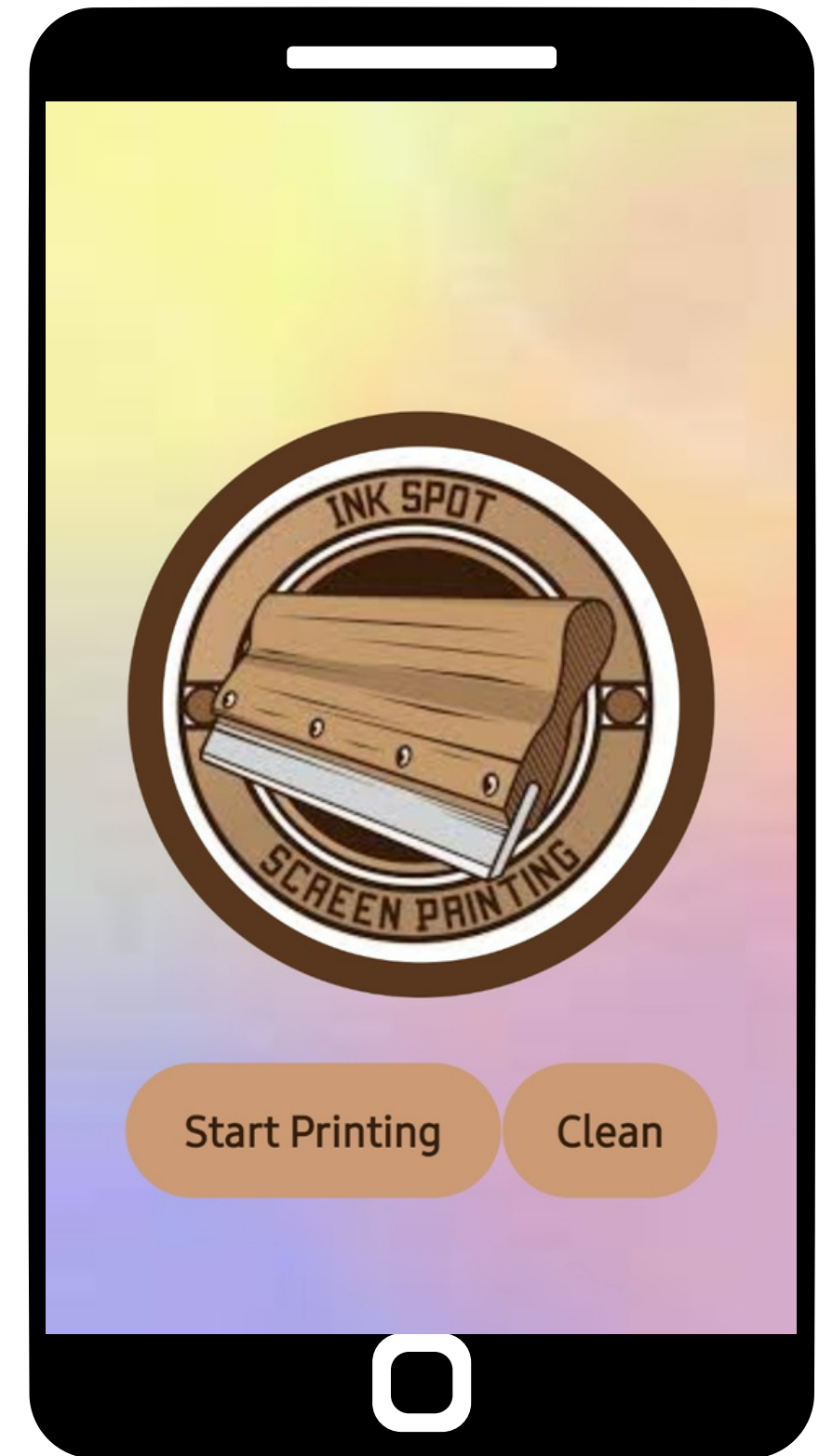
Limit switches



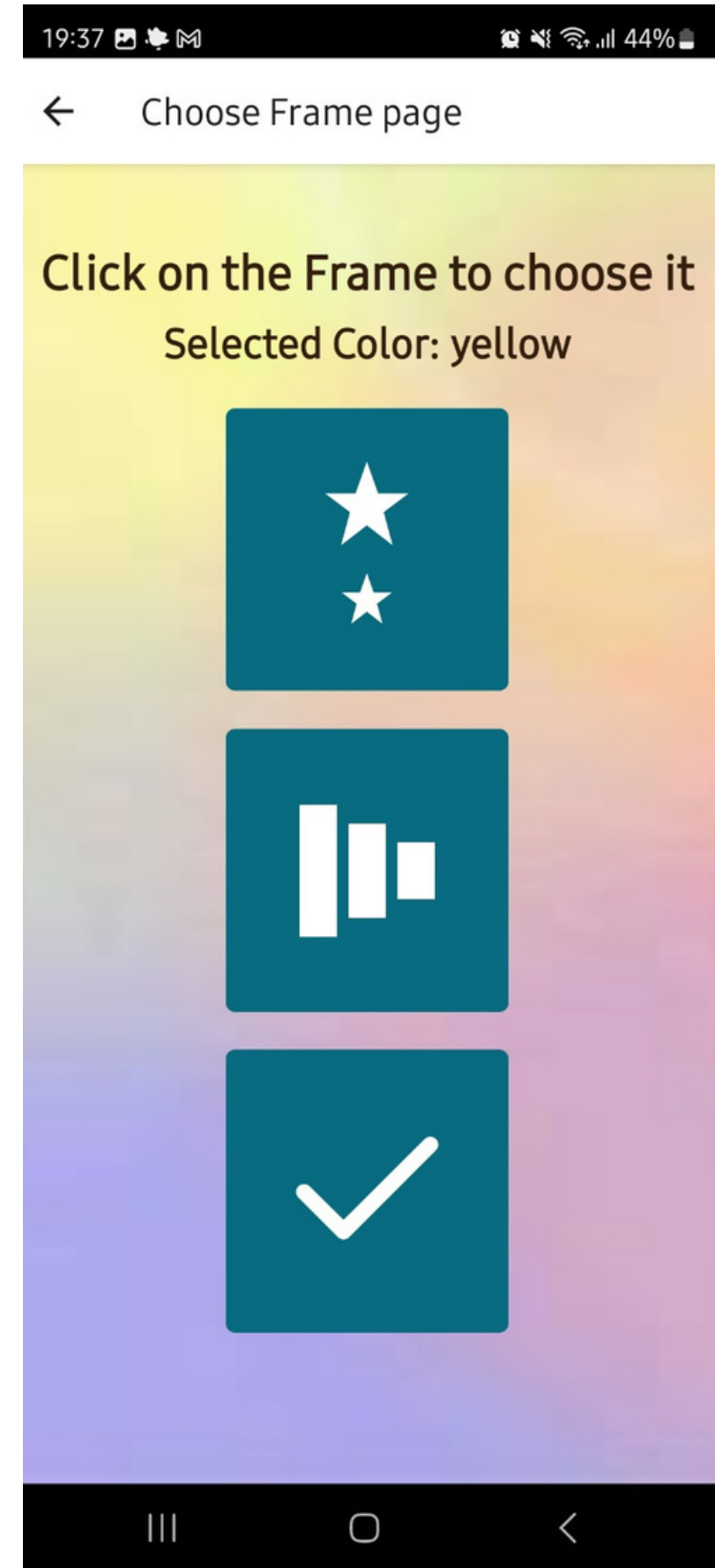
Reed Switch

MOBILE APPLICATION

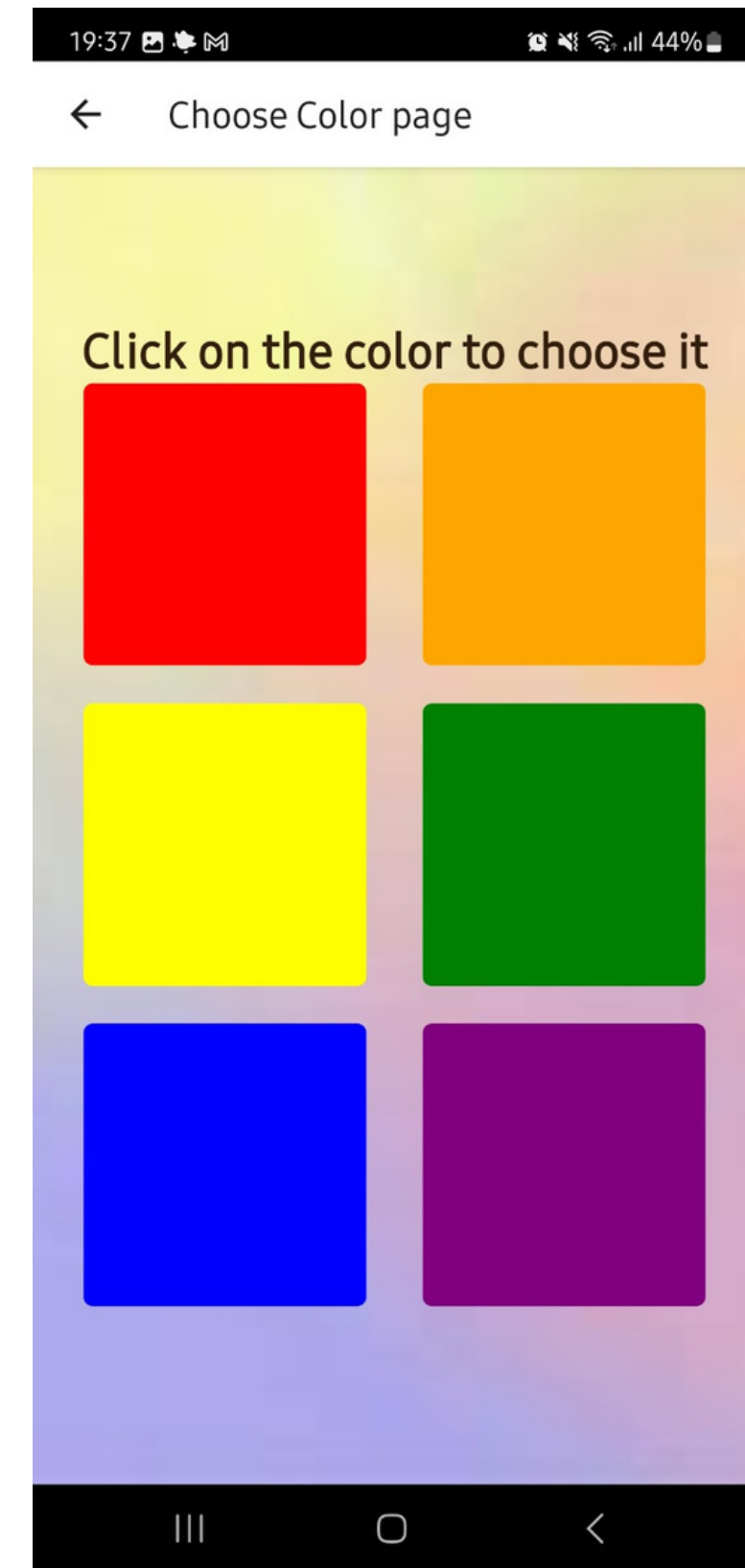
User Interface Page:



Choose Frame Page:



Choose Color Page:



Constraints

Constraints :

- Providing power to the various components, Using two power sources (24V and 5V/12V) .
- Faced delays in getting parts due to tough conditions.
- Limited time at university affected our schedule.
- Dealt with mechanical issues like gear problems and part synchronization.
- Damage Some component

Future Work

Future Work :

- Improve the mobile application.
- Offer more colors and designs, and maybe use AI to suggest designs.
- Keep making the machine parts better and more reliable.
- Make the system ready for making more items at once.
- Use green materials and methods, like eco-friendly inks.
- Provide payment system.

Thanks!

Any questions?