**Tell us what your idea is.**

Skipy is a toy for creative playing. Creativity is an essential tool for a child, it is a way of thinking and expressing oneself. Technology today is missing elements of physical interaction that

would make children think and play creatively while interacting with the screens.

We have built a creative play kit that can be used with an android mobile app, The mobile app guides children to draw interesting characters on the drawing pad. Children draw characters on the drawing pad that come alive in the digital mobile app. When a child draws a character, skipy recognizes what is being drawn and presents the drawing to the child as a nice story line built around the drawing.

Skipy combines creative play with digital content into a single experience, Skipy is all about discovering and inventing new things, which motivates children to be imaginative,so that drawing is not only a fun activity but also makes children creative.

**Tell us how you plan on bringing it to life.**

We have built an android mobile app that is capable of finding and extracting drawings that are drawn on a paper or any drawing pad. We use a method of mesh generation and skeleton fitting to recognize what is being drawn by a child and bring these drawings to life in a digital world in the mobile app.

Our Algorithm works in a variety of light conditions and generates the best possible output of the drawing made by a child without altering anything from his original sketch. We have built a tech stack in our mobile app that is capable of figuring out the exact lines and curves in drawings that is drawn on a piece of paper and crop and bring that drawing out.

Our challenge has been to recognize the drawings made by a child. Eg. when a child is asked to draw a car he could draw it like a cartoon car, a car with mikey face , a car with wings, a car with a skateboard, but the representation of the car is the same. a child's imagination has no bounds Recognition that it is a car from the hand drawn image is a challenging problem for us to solve.

We want to utilize ondevice ML to figure out what a child has drawn and based on that

inference of what a child has drawn the story can take shape in the direction that we want the story to proceed , like we say to a kid draw what u like and he draws a rabbit based on the recognition, the rabbit could run on a meadow, rabbit can meet a tortoise what not , the story is only bounded by imagination. With Recognition play becomes open ended.

1. The algo to figure out the drawing from a piece of paper or the drawing pad is built.
2. The algo to make a set of lines and curves from the drawing is built.
3. The algo to generate mesh and skeleton is build
4. Google can help us in identifying hand drawn objects from these data.

**Tell us about you.**

I love building products be it an IOT device or a kidtech toy, I am technologist working on computer graphics , vision and image processing for the last 15+ years , I have built multiple tech products during my stint at samsung , LG , motorola and philips , currently i am pursuing my passion to build a toy that would make children creative in front of the screens, I want to utilize my tech skills and my hobby of drawing and painting to make better products that would make children creative while paying with the screens.

**Next steps.**

* Be sure to include this cover letter in your GitHub repository
* Your GitHub repository should be tagged #AndroidDevChallenge
* Don’t forget to include other items in your GitHub repository to help us evaluate your submission; you can include prior projects you've worked on, sample code you've already built for this project, or anything else you think could be helpful in evaluating your concept and your ability to build it
* [**The final step is to fill out this form to officially submit your proposal.**](https://docs.google.com/forms/d/e/1FAIpQLSe43koQL33IzgxXQl29Ex3AhFuqd4hQzxLiXREqwRkDGtx1vA/viewform?usp=sf_link)