**An Inquisitive Little Boy**

A four year old boy sits beside his father on the bed, listening keenly as his father reads out a story from a book with beautiful illustrations. Words were not as clear as they would be to his childish mind in a few more years, but the story was very clear and entertaining.

“And then the wizard lifted up the piece of glass and voila – a fantastic seven coloured rainbow bathed the land of grey with all of its colours. The prism had worked.”- said the father while pointing out to a triangular glass slab in the story book. The child was amazed. So much so, in-fact that he would ask his grandfather for a prism on his birthday when he was a little older.

(The fact that a prism only split white light into an indistinct band of colours really broke my little heart. There was no rainbow)

A few years passed. The child grew fond of making simple machines. So instead of calling out aloud for his mother who was working downstairs in the kitchen, paper strips attached to a line, used for drying clothes, with clips were used. (That line went straight back to the top of the cupboard, by the way). The child also used PVC pipes, a funnel and some clips to make a shower on the terrace that could be used in the rains just for fun.

Mathematics was never so lively for the child until it involved sums with coins and cookies, both of which became rarer as the classes progressed. However, the story remained intriguing. What fascinated him was never the answer but how it was arrived at – the story of mathematics. Probably, he didn’t realise it then, but what this did was for him to establish a deep bond with Mathematics. As time went by, with more exposure came the skills to solve. The most alluring quality of mathematics to the child was ability to solve problems. Everyday one could encounter fresh problems and the thrill in being able to solve these was un paralleled. A continuous flow of adrenalin. It was so addictive that not doing it for even a day was and is un-imaginable.

Science came into picture in the fourth grade. It was the first time when he learned about all those fantastic things that only a child can get lost in – the habitats of animals, the change in colour of solutions and the strange interactions between magnets. He pursued most of these experiments at home, probing further into mechanisms of these processes. Consequently, soap solutions were stored in Dad’s empty beer bottles in the backyard and loose wires and a dry cell were kept confidentially in a small box in the wardrobe. (It was much later that I would get my electronics kit for this very purpose). The nascent inquisitive steps evolved into magic of creation for the young mind - the first pin hole camera he made and saw the images inverted - the first electromagnet that would adorn the school’s physics lab – an electrolysis set up (he called it oxygen & Hydrogen generator) that would win him size quest and get him admitted to school’s Physics society…. the journey was amazing.

This creative journey blossomed further when he joined ‘Robotics’ club in sixth grade. His first robot was predictably a car with motors running the first and rear set of wheels. These were controlled by a switch gear connected to the car by an elaborate set of wires, which kept infringing on the cars movement. Next leap came when he could install a receiver unit on the car and the wires were done away with. His ‘remote controlled’ car became a major bragging and ‘show-off’ item for many months. However, his younger cousin’s comment that it looked more like a flat cart and less of a car, punctured the ego and told him that he had many a mile still to go. Later he learnt to pre-program these with PLC boards. All this culminated in him learning to make a quadcopter when he was in ninth grade. However, understanding of how it actually works is still very rudimentary. But the joy of making something that could take flight was very very unique.

It was in seventh grade when the child was introduced to HTML. The thrill that he got from writing his first code in the computer lab was incomparable. The fact that he could create something special out of those little groups of words that would actually be put to use amazed him. It still does. That evening I remember him going through the entire book on computers at his desk, his expression a mixture of awe and satisfaction. I do not remember the hours he spent at his parents desktop, slightly tweaking a statement to see the effect it had on the output but I do remember his childish self bragging about it and seeking his parents praise. I have come to understand this as one of the core features of this child: he endeavours to create something of his own that can be used by others. This is the reason why he tries to figure out things on his own. This is the reason he has interest in mixing chemicals, using tools to build machines and experimenting with cooking techniques (Don’t ask – I ended up making chocolates that didn’t quite agree with anyone’s stomach, specially of my ardent critic – my younger sister).

In eleventh grade he was introduced to two dimensional arrays. This is the first time he realised that he could use the display screen as a two dimensional object and voila came a shooting game. The cursor had to be guided till the target – a fairly simple game. But his first, and he would stop no end to encourage his peers to come and play. But the crowing glory was when the teacher also complemented him for unique use of recently acquired know how. His joy knew no bounds.

One more thing I have realized about this boy is that even though he tries to show everyone that he is brave and tough, he is not – not by a far way. He is the kind of guy who wipes his moist eyes clean with the shirt sleeve and then accuses the movie of being very un-dramatic. He is that guy who bites his lower lip on seeing a mouse so that others don’t see him scream. He is that guy who looks away and tries to think of ice creams when his family parts with his relatives at the stations.

It wouldn’t be fair to talk about the boy’s passions without mentioning astronomy. In the ninth grade a trip organized to ‘Sariska’ gave the boy a chance to use concave- mirror reflector telescope to observe the moons of Jupiter, the rings of Saturn and the angry red colours of Mars. The realization that we look at stars as they were thousands of years ago is a reward in itself. After this, cosmos and the kid were inseparable twins. Suddenly, Carl Sagan’s ‘Cosmos’ and Stephen Hawkins ‘Brief History of Time’ were best reads. The more he read the more is loved it. Later that year he participated in ‘Asteroid Search Campaign’ and facilitated 31 Preliminary Discoveries of new Asteroids. A maxima amongst all participating teams. However, the thrill was far greater than awards or achievements. Next he used his robotics skills to make rockets, these were propelled using HP air. Again understanding the fins and stability of flying objects and propelling them to almost 100 metres was most gratifying.

The boy is seventeen years old. As he sits writing this essay he cannot help but think about how fortunate he has been to experience such a glorious time. The thrilling journey continues and in Robert Frost poetic words ‘He has miles to go…. Miles to go’.