



A CLOSER LOOK AT KUET'S JUTE-FIBRE RACE CAR

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Kilo Flight, a team of Mechanical Engineering students of Khulna University of Engineering and Technology (KUET), has built a formula racing car out of jute fibre and are looking forward to bringing the technology to regular road cars. The car illustrates not only the young aspirants' potentials but also the diverse applicability of our golden fibre.

Team Kilo Flight built the car with the primary goal of participating in the Formula Student UK event--an annual engineering competition where participants showcase small-scale formula-style racing cars. It's one of Europe's most established educational engineering competitions. The team participated online and came out 33rd out of the 64 countries that took part.

Team captain, Arfan Islam, shared that they wanted to implement the theoretical knowledge gained from academic studies and develop their skills. When explaining



why they chose the automobile sector, he said, "It was preferable for us since we are Mechanical Engineering students. Also, Bangladesh is underdeveloped in this sector, so we hope to contribute to its progress."

The car

The car, known as Kilo Flight Alpha, uses a jute composite for a large portion of its form. The body, the air intake system, aerodynamic devices, and the driver seat



PHOTOS: TEAM KILO FLIGHT

are made of jute composite.

The car features precise, handbuilt components. Most of the parts were designed and manufactured by the Kilo Flight team. It took about three years and BDT 10-12 lakhs to carry out the project.

When asked about the power output of the car, Arfan said, "According to the Formula Student UK event regulations, we could not go any higher than 710 CCs. Our engine produces 43 bhp, and it propels the car up to 162 km per hour. The car has a hydraulic braking system."

"The team will continue to develop and improve the car," he added.

Safety and durability

As for safety features, Arfan says, "Formula cars are the safest vehicles in the world. There are automatic response systems in the car to save the driver in the case of an

accident. The chassis is designed in such a way that even if the car rolls over, the driver will remain untouched."

While talking about the durability of the jute composite, Arfan informed that the composite is much stronger than it might seem. "It will not get torn, as some people might imagine. It will break, like iron and steel," he says. "We tried to cut the composite with a tool used to cut iron but couldn't cut it."

Furthermore, the composite is much easier to repair, according to him.

Difficulties faced

The three years of manufacturing was not a smooth journey. The competition holds annually, so the team has to work year-round. "Managing the team and keeping the spirit up for such a long time is a big challenge for us," the team captain said.

They also faced financial and technical troubles.

"Investment in this sector is insufficient in our country. The team, along with the help of our alumni, financed the project. Since we have crossed the primary threshold, we hope that we will receive private and government funding now."

Additionally, the team felt a need for advanced machinery to make precision parts for the car. "Sometimes, we need precision to the sub-millimetre level," Arfan said. "We need to process the raw materials and prepare them for production, which also demands expensive machinery. So we found alternative ways and got around the problems."

Where do they go from here?

The team participated in the event online this year because of the pandemic, but they will go to England and showcase their works next year. Arfan stated, "We will bring electric and driverless vehicles along with the combustion vehicle next year. For the next four or five years, we will develop and refine this technology."

"Our ultimate goal is to bring this technology to passenger vehicles," Arfan noted. He explained that the technology used in racing vehicles are far advanced than passenger vehicles. "Considering the road conditions of Bangladesh, we will bring such things that no one else has done or thought of."

Bangladesh is keen on electric vehicles, and policies are getting prepared for domestic production. This team of aspiring engineers could help our auto industry move up the reputation ladder if given proper funding, technical help and recognition.

The fear of becoming a bad manager might make you one

NOMROTA SARKER

The word 'manager' is probably clichéd enough for anyone to be enthusiastic about managerial roles. The truth of the matter is, most people don't want to be managers. Managerial skills usually include planning, communicating, problem-solving, decision making, delegating and motivating—all at once. This is why many find being a 'good' manager to be more challenging than it is.

Developing managerial skills from early on can help young professionals see through the challenges of becoming bad ones. While some companies tend to overlook the importance of addressing the fears, mapping out the concerns can help employees look forward to managing teams and departments more effectively.

After all, nobody wants bad managers to leave a legacy. Every young professional will inevitably find themselves in a managerial role at least once, so it is a good idea to develop some crucial managerial skills to not enable and normalise bad management in an organisation.

A good manager prepares their successors

Young or aspiring managers with limited experience intuitively think managerial roles come with big and scary responsibilities. They are not only required to meet their own goals but also help their team reach their desired goals in the company, consistently. They also need to have an exit strategy -- where they can aspire to transition to a better role and develop someone to take on their current one.

"A good manager is someone who realizes the difference between a supervisor and a leader. He/she must have good 'people skills' that inspire others around him/her and give out a positive vibe in the team. A good leader should be able to delegate tasks to the team without the fear of their subordinates failing at it. Practising this would eventually allow them to prepare a successor, which is evidence of good leadership," says Pritom Das, Brand Manager at Grameenphone Ltd.

More commonly, managers around the world are expected to have good communication skills because they need to divide work, delegate and prepare their subordinates to face challenges regularly. Without empathy, emotional intelligence and solid interpersonal skills, a manager cannot possibly expect excellent results from a team that he/she is failing to relate

to and motivate.

Good managers learn (about their team) everyday

A manager is only successful when they let their team/ subordinates grow under their leadership. This process requires an immersive experience for the manager, as they need to learn and stay updated about their subordinates' challenges at work every day. True leadership requires learning about the people for the people to learn.

"To be frank, I learned most lessons in my professional life from people I was afraid of becoming. Today I am a manager myself and I wake up every day with a heavy responsibility on my shoulders. I am aware that my decisions can have big consequences too. What keeps me going even then is my nature of calling myself a learner for life -- as a manager, you have to be on your toes to keep things relevant for your team," said Sanjida Tanny, an

they work with to show interest in them. Young professionals in any managerial instance thinking they hold the authority and power to control someone makes the foundation of bad management.

Setting clear expectations and focusing on simply being a good human being to your team is a good start. The rest can be figured out through time, patience and consistency," he added.

To set clear expectations, managers can give specific instructions, make them measurable (metrics to track), lay out the relevance of the task and expected outcomes based on the capacity of each employee.

Good managers give helpful feedback (not just feedback)

From the fear of being a bad manager and googling "what does a good manager do?" Many would pick up a common trait of a manager-- giving feedback. While giving feedback is considerably easy,

different perspective to the discussion. "A bad manager can hold you back from new opportunities and career advancement, set you off on a trajectory that is not right for you, and even sour you on industry entirely. The role of a mentor is a tremendous responsibility that could potentially give you a great deal of power and influence over someone in need of real advice, moulding, and guidance.

This includes everything from support, encouragement, and motivation; to opening new doors; to networking and job opportunities. To have someone whose journey is complementary to yours and who is personally invested in your success is when you know you have a good manager," he added.

Good managers take the bullet for their team

"Good managers don't need positions of authority/seniority to exercise leadership. They just need to be one step ahead of you in terms of technical and interpersonal skills and be willing to help you grow," said Samuel Mursalin, Chief Strategy Officer at Bolstar, an HR-Tech startup and Lecturer, Department of Management at North South University.

"Good managers articulate everything, bad and good, very clearly so that you know what they expect from you, what you need to do to attain the KPIs and what is at stake. Good managers manage the expectations of teams very well. They will give their team members all the credit and take all the bullets himself/herself," he added.

Managers can be a lot of things, but one thing managers are is their perception of who they are. Working with a team to steer it forward can be overwhelming but managers who ask for help and empower others in the process do it seamlessly and consistently.

"A good manager should encourage ideas and ownership. The manager I would want to work with should see to it that subordinates are presented with opportunities for learning and growth. They should also be able to deal with issues fairly, politely, and professionally," said Oishee Erada, Sales Development Representative at a local SaaS startup.

While the roles and responsibilities of a good manager are definite, it is also subjective. Giving in to the fear of being a bad manager because you are dealing with one is what does the most damage to an individual's growth.

Instead, talk to people before you are to take up a managerial role, learn about the basics of not coming off as arrogant to your subordinates and do your job with integrity. These might not make you a 'good' manager overnight but will not make you a bad one.

No matter what you do, give out credits for good work. Stealing credits doesn't put you in the spotlight, it makes you as annoying as the blinking tail light of a totalled car, to your subordinates.



Education Advocate and Communications Professional.

"Be open to ideas, be open to learning from everyone around you, be open to teaching and sharing your learnings, and while we all love being tech-savvy, make sure the human in you is always alive," she added.

Good managers don't overshadow their competence

"Managers need to have some level of competence for managing people and guiding the team. However, there is a significant difference between 'being competent' and 'showing competence'. Their subordinates need to trust their judgements based on their competence but if the manager is over-showing it in any opportunity they get, the team is likely to lose trust in them and get intimidated by their methods of getting work done," said Arijit Saha, a Senior Business Analyst at a leading IT company.

"A manager's job is to keep the people going--through conversations, inspiration and appreciation. But for that, they need to be 'interested in the people