



**Jayprakash B Rathava, class 12,  
Shree Gram Shala Grambharti, Gan-  
dhinagar, Gujarat**

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Jayprakash likes to play kabbaddi and loves to travel. He makes sure never to miss school picnics and tours.

“When I grow up, I want to make a lot of money and then travel the world,” says Jayprakash, whose father is a farmer and mother is a homemaker. He has a brother and two sisters. Whenever he is back in his village, he helps his father in farming.



**Tanmay Takale, class 12, Shri Mhalsa-  
kant Vidyalya, Pune, Maharashtra**

Tanmay’s hobbies include playing football, sketching and reading books. “I want to keep innovating things to make the lives of people easier. I believe that one should dream big and work hard. Hard work pays off,” says Tanmay, who used to spend sleepless nights working on his innovations.

Tanmay’s father works with a manufactur-  
ing company while his mother is an insurance agent. He has a younger sister and shares that when the IGNITE 2015 awards were announced, it was his grandmother who was the happiest.

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# Foot-operated door opening mechanism

Jayprakash B Rathava, class 12, Shree Gram Shala Grambharti, Gandhinagar, Gujarat | Tanmay Takale, class 12, Shri Mhalsakant Vidyalya, Pune, Maharashtra

Opening a door with hands full is inconvenient. Also, touching the door knob of a public restroom may not be hygienic



The two students have given an idea of a mechanism through which a door can be opened by activating a sensor using a leg. While this mechanism is most useful in public toilets, it can also be used elsewhere and may be useful for the physically challenged or someone carrying load in both hands.

Jayprakash was travelling from his hometown in Bamroli village to Gandhinagar in a bus when he saw a man with no arms, trying to board the bus. However, he could not open the door of the bus in time and missed the bus. This incident left a huge impression on Jayprakash's mind. Tanmay and his friends had gone for a movie and while using the washroom, they saw that there were many people who left the washroom without washing their hands. These incidents made the students to develop the idea of a hands-free door mechanism.

