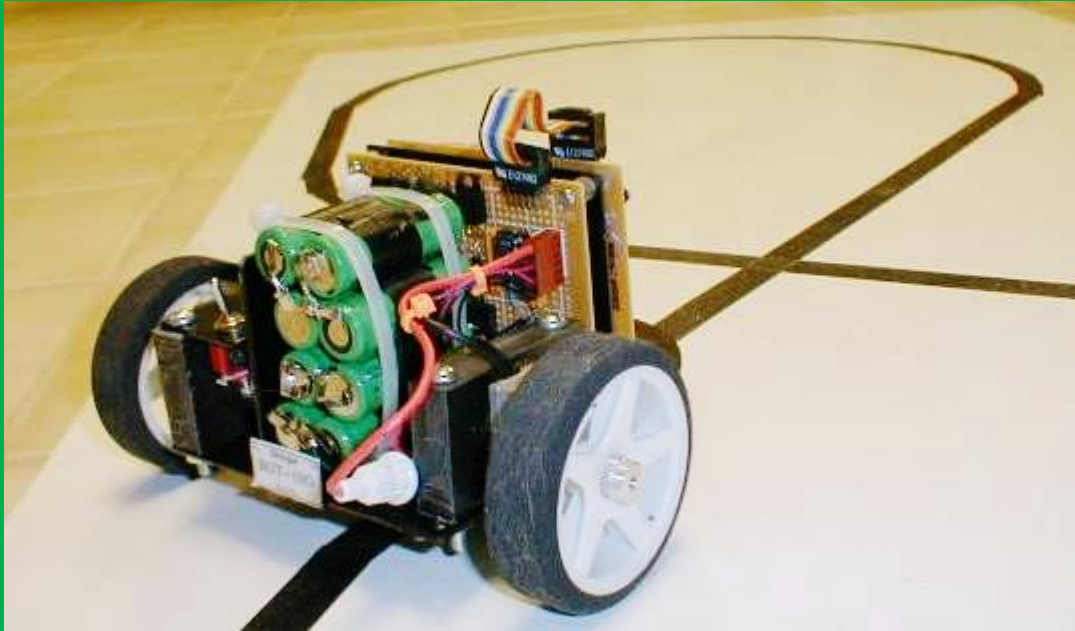


Line Follower

Manual (Rules & Description)



Follow the line to make a path and emerge as the winner



Student Coordinators

Arjun Barse – 09028525446

Shrikant Gundu – 09890638702

Kishan Kumar - 09595919296

Email: tm2k10mit@gmail.com

URL: <http://www.mit.asia/technomillennium.aspx>

TECHNOMILLENNIUM 2010

Registration Fee:

- Limited Entries are available.
- Regular Registration fee is Rs. 300 per team from 1st September to 15th September 2010
- If the team members exceeds than the maximum limit (4), Registration fee is Rs. 100 per student.

Registration Procedure:

- Download registration form- at
<http://www.mit.asia/Technomillennium3.aspx#Downloadable>
 - Print the form and fill the necessary information and take the bonafide certification from the head of your institute on the same filled hard copy registration form.
 - You can use the single form for the each team. Write the name of all team members on the same registration form.
 - There are two modes for paying registration fees. I) Cash and II) DD.
 - If paying Cash, contact at our contact address and issue a proper cash Receipt and confirm your registration by submitting filled registration form.
 - If paying through a demand Draft (DD), issue a DD of amount equal to the registration fees needed for a team or individual from any nationalized bank in the favor of “**The Principal, MIT, Aurangabad**”, payable at **Maharashtra, Aurangabad**. Write your name & Name of competition on the back of DD.
 - Make the photocopy of DD and Filled registration form and keep this set for your reference. Send both the DD and Filled registration form (Both original) to the following contact address- (**Convener, Technomillennium 2010, MIT, Beed By Pass, Satara Village Road, Aurangabad, Maharashtra, India - 431028**).
-

Robot Specifications:

- ❖ The robots must be autonomous. (Data links to off-board computers allowed, but no Tele-operation. In other words, it should not include human-operated remote controls.)
- ❖ The maximum robot width is 8.5 inches (216 mm).
- ❖ The maximum robot length is 11.0 inches (279 mm).
- ❖ The robot must have a working and easily accessible **ON/OFF switch**.
- ❖ Connecting and disconnecting the battery to perform this function is unacceptable.
- ❖ A **RESET** switch is recommended for better control of the robot.
- ❖ The robot can start in any orientation, but must follow path in specified direction as specified by the judge at the competition.
- ❖ The microcontroller must be only 8-bit or 16-bit processor.
- ❖ There are no constraints on the motor/s and/or gearbox/es.
- ❖ There are no constraints on the sensor array you choose.
- ❖ There are no constraints on battery types or sizes.
- ❖ There are no constraints on robot height.
- ❖ There are no constraints on robot weight.
- ❖ There are no constraints on chassis materials.
- ❖ There are no constraints on wheels. (Your motor choice will influence this choice.)

Track specifications:

- ❖ There will be no tricks used with respect to the track layout for this race. Future races will progressively add features to challenge the contestants.
- ❖ Track will be provided in the form white line on black surface.
- ❖ The course line will be 3/4-inch (19 mm) wide, \pm 1/8 inch (3 mm).
- ❖ The course line may be curved, with a centerline radius of 6.0 inches (152 mm).

- ❖ The robot must deal with lighting conditions as they appear. Room lighting and window drapes will be set as desired by the judges and will not be modified for individual contestants. Also, flash photography and IR focusing cameras will be allowed, unless the judges deem such activities as interfering with the ability to hold the event in general.
- ❖ A track may have some inclination (10 degree).

Evaluation Strategy:

- ✓ The final score for a team will be decided after finishing two or three rounds based on the time trails. The top three times will win first, second, and third place respectively.
- ✓ A team is allowed to run three attempts with the best time being used as the final score.
- ✓ Nudging/pushing or restoring a robot to the location it left the track incurs penalty and will be decided by judges/representative depend upon the situation.
- ✓ A robot that takes a shortcut will be picked up and placed on the correct path at its point of deviation, also incurring the time penalty.

Notes:

- Judges decision shall be treated as final and binding on all.
- If your robot does not conform to the specifications above you are still able to compete in exactly the same fashion with the exception that you will no longer be eligible for prizes.
- Your robot must not damage the track or any other property in the process. This includes people at the event.
- If your robot is fast enough to injure someone when/if it breaks loose from the track a remotely operated or software induced kill switch is mandatory.
- Other rules will be displayed at time of event.

Team Specification:

- A team may consist of maximum 4 members.
- Students from different educational institutes can form a team.

Eligibility:

- All students with a valid identity card of their respective educational institutes are eligible to participate in the event.
- Students should carry their identity card at time of reporting.

Certificate Policy:

- Certificate of Excellence will be awarded to all winners
- Certificates will be given to every participants.

