"Letters on the Track"

"Letters on the Track" is an application that allows a user to make letters of an English alphabet run on the track with a given speed. It is also possible to change the speed of a running letter and remove a letter from the track.

Implement the "Letters on the Track" application ("the app") considering a suggested UI, given user stories and requirements (see below).

Suggested UI

Suggested UI of the app:

User Stories

1. *As a user* I enter a letter that is not on the track to the Letter text box, set its speed to N using the Speed slider and click the "GO!" button *so that* the letter starts running on the track with the given speed.
2. *As a user* I enter a letter to the Letter text box that is already on the track with speed N, set its speed to M and click the "GO!" button *so that* the letter changes its speed from N to M and keeps running on the track.
3. *As a user* I enter a letter to the Letter text box that is already on the track and click the "STOP" button *so that* the letter gets removed from the track.

Requirements

1. A newly added to the track letter starts running (moving) from the left boundary of the track to the right boundary.
2. Reaching a boundary of the track (either left or right) a letter changes its direction to the opposite direction and continues moving with the same speed.
3. If a letter on the track meets another letter, then both letters change the direction to the opposite direction and keep moving with the same speed.
4. Speed of a letter on the track ranges from 0 to 10.
5. It should only be possible to put only small and capital letters of the English alphabet on the track.

6. The app should be robust, there should be a nice message when the user makes a mistake. For example, if the user clicks "GO!" without a letter in the letter box.
7. The app can be written in any language you feel most comfortable in. It is allowed and encouraged use frameworks and latest technologies.