SSE Projects Proposal Form

Note: Feel free to email this form to projects@sse.se.rit.edu in lieu of printing this form out and handwriting your responses. Please try to include as much information as you can.

Are you interested in demoing this project at ImagineRIT?
[x] Yes [ ] No

Project Team
List confirmed members of your project team here, including what roles (if any) they have been assigned (ex. 'Team Lead').

Jesse Jurman – Team Lead
Allen Sanford – Physics Consultant
Ethan Jurman
Robert McLaughlin
Kevin Hannigan
Rafael E. Lopez M.

Meeting Times/Locations
If you have already figured out (a) regular meeting time(s), please include that here.

Project Vision
In a few sentences, try to describe what you want to accomplish with the project. Think of this as the long-term vision and/or goal.

The vision for this project is to build an interactive whiteboard turtle interpreter. The current design is a small magnetic car that is controlled by a raspberry pi.

Project Scope
Describe what parts of the above vision that you believe you can accomplish in a timeframe of your choosing.

Baseline functionality should include all relative movement in turtle functions (e.g. forward, left, right, up, down, etc..). Possible programs could include drawing diagrams, large artwork, saving whiteboard progress, and giving students a physical environment for working with turtle.

Risks/Mitigations
Describe any major risk factors that you can foresee being an issue with the project. Please include information on how likely you think the risk is to occur and what impact it will have on the project.

Risk	Chance	Mitigation

Timeline/Project Landmarks
Describe the timeline for your project. It is recommended that you factor in at least one release (preferably early on in the project lifecycle) for demoing a proof of concept of your project to the SSE.

Ground Prototype – Servos / Motors interact with Raspberry Pi, work with Turtle-esq commands

Horizontal Whiteboard Model – Working cart and whiteboard marker component. Can effectively draw on a whiteboard laying on the ground.

Vertical Model – Working cart, with magnets! Cart moves on a standing whiteboard.

Hardware Requirements
If your project requires any hardware to be purchased, list that hardware here with a best-guess estimate of how much you think the hardware will cost and when you will need the hardware by.

- Servo Motors (4 for wheels, 1 for moving the marker up and down)
- Wheels (4)
- Magnets
- Magnetic Shielding
- Raspberry Pi (w/ SD card)
- Microcontroller (Arduino)
- Sensor (/ Mouse Laser?) for checking location
- Battery (to power the whole unit)
- Chassis (may be 3d printed)

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Faculty/Club Contact
If your project requires you to work with another club/on-campus group, or you have already reached out to a faculty member for assistance on a project, please note that here.

Other Information
Please include any other information you think will be helpful.

This project is gonna be AWESOME!