the brl-cad project

Theme of writing this document:-

* To make it clear to someone who is new to"BRL-CAD PROJECT".
* What are possible ways one can get involved and contribute to BRL-CAD.

There may be many questions regarding BRL-CAD like:-

1. What is BRL-CAD PROJECT ?

2. What are the applications of BRL-CAD and its services?

3. What are possible ways one can get involved and contribute to BRL-CAD?

**1. BRL-CAD is a constructive solid geometry (CSG) solid modeling computer-aided design (CAD) system.**The development of BRL-CAD was initiated by **Mike Muuss** in 1979. The first public release was made in 1984. BRL-CAD became an open source project on 21 December 2004.

* BRL-CAD is a powerful, cross-platform and open source solid modeling system that includes 3d solid geometry editing,ray tracing,image and signal-processing tools,Path tracing , photonmapping,an embedded scripting interface and libraries .
* BRL-CAD contains more than 400 tools, utilities, and applications and has been designed to operate on many common operating system environments including **BSD, Linux, Solaris, Mac OS *X, and Windows*.**

**2.** BRL-CAD is widely used in military,academic, industrial applications ,dose planning, medical visualization, computer graphics education, CSG concepts and modeling education and much more .

* **For more than two decades, BRL-CAD has been the primary solid modeling CAD package used by the U.S. government to help model military weapons systems for vulnerability and lethality analyses .**

**3.** No matter whether you are a developer, documenter, graphic artist, academic or someone who just wants to be involved in a unique open source project, BRL-CAD has a place for you

The possible ways in which you can contribute to BRL-CAD are

**Developers:**

Regardless of your level of experience as a developer BRL-CAD offers tasks like:-

* The Deuces List (<http://brlcad.org/wiki/Deuces#Code>)

which take 2 hours or less time to complete.

* ContributorQuickies (<http://brlcad.org/wiki/Contributor_Quickies#Code>).
* SourceCodeClean-Up

(<http://brlcad.org/wiki/Code_Cleanup>)

* TODO Lists that involves picking up an idea from the list of project ideas.

**Documentors:**

If you are not a developer no need to worry there is another way you can contribute to BRL-CAD that is by helping to write, update, and improve the project's documentation.

The tasks include:-

* DocumentationDeuces (<http://brlcad.org/wiki/Deuces#Documentation_and_Training>)
* Documentation Contributor Quickies

(<http://brlcad.org/wiki/Contributor_Quickies#Documentation>).

* Documenting while learning and converting older documents to docbook format

**If you don't code or write documentation you can still contribute by following ways:-**

Bug Reporting

This involves finding and reporting bugs with the existing the software on BRL-CAD.

Outreach and artworks

BRL-cad requires creative people efforts and professional-quality artwork to give BRL-CAD a more polished look .

Quality Assurance

This involves creating test frame works that test the specific portions of code or go through BRL-CAD's graphical user interface and find and report any bugs.

Research

BRL-CAD also encourages contributes who can study problems with the software and recommend solutions based on their reasearch work.

Translations

BRL-CAD aims to make thier software avaliable in different languages so contributers having knowledge in one or more languages other than english can also get involved.

User Experience

contibuters having interest can also learn the user interface of BRL-CAD software and perhaps can help making BRL-CAD user interface more user friendly and more consistent.

Participation in Organized Third-Party Events

BRL-CAD participates in programs like

* Google Summer of Code (<http://brlcad.org/wiki/Google_Summer_of_Code>)
* Google Code-In

(<https://developers.google.com/open-source/gci/>)

* Code iEuropean Space Agency (ESA) Summer of n Space **(**<http://brlcad.org/wiki/ESA_Summer_of_Code_in_Space>**)**

which provides opputunities to new contributers to work on BRL-CAD

**Suggestion to new contributers:-**

After getting involved in BRL-CADProject by any of the ways mentioned above it is suggested for all new contributors to actively interact with the existing developers and discuss their intentions through any of the following communication channels:

1. Internet Relay Chat (IRC)
2. E-mail Mailing Lists

c. On-line Forums