

Successful cleanroom installation of PIP-II SSR2 coupler using robotic arm

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To minimize the contamination of SRF cavities, remote installation techniques are needed during the installation of components. Recent work at Fermilab has been performed to begin the process of developing techniques for assembling cavities using robotics. Multiple alignment methods were prototyped including alignment and computer vision methods. Using a remotely controlled robotic arm, the alignment and installation of couplers have been successfully performed on prototype PIP-II SSR2 cavities in a cleanroom. The installation process will be shown to demonstrate the potential of future installations on other cavities and cavity ancillaries.

Footnotes

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