

SPACE PROPULSION SYMPOSIUM (C4)
Propulsion System (1) (1)

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REUSABLE SOUNDING ROCKET ENGINE DESIGN AND MANUFACTURING STATUS OF
DEVELOPMENT ENGINE AND COMPONENTS**Abstract**

Reusable Sounding Rocket is under development in Japan. Main engines of this LOX/LH2 system hires expander bleed cycle, which is Japanese unique system in the world. This engine will demonstrate the features of 40 to 100 percent throttling capability, restart, health monitoring, idle mode and easy operation. Detail design of the development engine and its components has been almost finished and the hardware will be ready for ground engineering tests at Kakuda JAXA facility in the autumn of this year. This paper describes status of design and manufacturing of development engine and components including combustion chamber, injector, igniter, turbopumps, valves and controllers.