

ĐSÑ,Đ<sup>3</sup>/<sub>4</sub> Ñ,Đ°Đ°Đ<sup>3</sup>/<sub>4</sub>Đμ CI/CD Đ, Đ°Đ²Ñ,Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ°Ñ,Đ,Đ-Đ,Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ²Đ°Đ<sup>1</sup>/<sub>2</sub>Đ<sup>1</sup>/<sub>2</sub>Ñ<Đ¹  
Đ´ĐμĐ¿Đ»Đ<sup>3</sup>/<sub>4</sub>Đ¹

## Description

**ĐSÑ,Đ<sup>3</sup>/<sub>4</sub> Ñ,Đ°Đ°Đ<sup>3</sup>/<sub>4</sub>Đμ CI/CD Đ,  
Đ°Đ²Ñ,Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ°Ñ,Đ,Đ-Đ,Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ²Đ°Đ<sup>1</sup>/<sub>2</sub>Đ<sup>1</sup>/<sub>2</sub>Ñ<Đ¹  
Đ´ĐμĐ¿Đ»Đ<sup>3</sup>/<sub>4</sub>Đ¹**

CI/CD Ñ•Đ²Đ»Ñ•ĐμÑ, Ñ•Đ<sup>3</sup>/<sub>4</sub>Đ±Đ<sup>3</sup>/<sub>4</sub>Đ¹ Ñ•Đ<sup>3</sup>/<sub>4</sub>Đ²Đ<sup>3</sup>/<sub>4</sub>Đ°ÑfĐ¿Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Ñ€Đ¿Ñ€Đ°Đ°Ñ,Đ,Đ° Đ´Đ»Ñ•  
Đ¿Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Ñ€Đ<sup>3</sup>/<sub>4</sub>ĐμĐ<sup>1</sup>/<sub>2</sub>Đ,Ñ• Đ¿Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ³Ñ€Đ°Đ<sup>1</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>Đ³Đ<sup>3</sup>/<sub>4</sub> Ñ•Đ<sup>3</sup>/<sub>4</sub>Ñ,,Ñ,Đ°.  
Đ•Đ±Đ±Ñ€ĐμĐ²Đ,Đ°Ñ,ÑfÑ€Đ° Ñ,Ñ€Đ°Đ°Ñ,ÑfĐμÑ,Ñ•Ñ• Đ°Đ°Đ° Continuous Integration Đ, Continuous  
Delivery. ĐYĐμÑ€Đ²Đ°Ñ• Ñ±Đ°Ñ•Ñ,Ñ€Đ Đ<sup>3</sup>/<sub>4</sub>Đ±Đ<sup>3</sup>/<sub>4</sub>Đ-Đ<sup>1</sup>/<sub>2</sub>Đ°Ñ±Đ°ĐμÑ, Đ¿Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Đ<sup>3</sup>/<sub>4</sub>Ñ•Đ<sup>1</sup>/<sub>2</sub>Đ<sup>1</sup>/<sub>2</sub>ÑfÑŽ  
Đ<sup>3</sup>/<sub>4</sub>Đ±ÑŠĐμĐ´Đ,Đ<sup>1</sup>/<sub>2</sub>ĐμĐ<sup>1</sup>/<sub>2</sub>Đ,Đμ Đ°Đ<sup>3</sup>/<sub>4</sub>Đ´Đ°. Đ´Ñ,Đ<sup>3</sup>/<sub>4</sub>Ñ€Đ°Ñ• Đ°Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ¿Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>2</sub>ĐμĐ<sup>1</sup>/<sub>2</sub>Ñ,  
Đ<sup>3</sup>/<sub>4</sub>Đ-Đ<sup>1</sup>/<sub>2</sub>Đ°Ñ±Đ°ĐμÑ, Đ<sup>1</sup>/<sub>2</sub>ĐμĐ¿Ñ€ĐμÑ€Ñ<Đ²Đ<sup>1</sup>/<sub>2</sub>ÑfÑŽ Đ´Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Đ°Đ²Đ°Ñf  
Đ<sup>1</sup>/<sub>4</sub>Đ<sup>3</sup>/<sub>4</sub>Đ´Đ,Ñ,,Đ,Đ°Đ°Ñ±Đ,Đ¹ Đ² Đ¿Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ´Đ°Đ°Ñ´Đ<sup>1</sup>/<sub>2</sub>.

ĐYÑ€Đ<sup>3</sup>/<sub>4</sub>Đ³Ñ€Đ°Đ<sup>1</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ,Ñ•Ñ,Ñ• Ñ€ĐμĐ³ÑfĐ»Ñ•Ñ€Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub> Đ<sup>3</sup>/<sub>4</sub>Ñ,Đ¿Ñ€Đ°Đ²Đ»Ñ•ÑŽÑ, Đ°Đ<sup>3</sup>/<sub>4</sub>Đ´ Đ²  
Đ<sup>3</sup>/<sub>4</sub>Đ±Ñ%ĐμĐ´Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,ÑfĐ¿Đ<sup>1</sup>/<sub>2</sub>Ñ<Đ¹ Ñ€ĐμĐ¿Đ<sup>3</sup>/<sub>4</sub>Đ-Đ,Ñ,Đ<sup>3</sup>/<sub>4</sub>Ñ€Đ,Đ¹. Đ¿Đ,Ñ•Ñ,ĐμĐ<sup>1</sup>/<sub>4</sub>Đ°  
Đ°Đ²Ñ,Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ°Ñ,Đ,Ñ±ĐμÑ•Đ°Đ, Đ°Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>2</sub>Ñ,Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ»Đ,Ñ€ÑfĐμÑ, Đ²Ñ•Ñ•Đ°Đ<sup>3</sup>/<sub>4</sub>Đμ Đ¿Ñ€Đ°Đ²Đ°Ñf.  
ĐYÑ€Đ<sup>3</sup>/<sub>4</sub>Đ²ĐμÑ€Đ°Đ, Đ,Đ<sup>1</sup>/<sub>2</sub>Đ,Ñ±Đ,Đ,Ñ€ÑfÑŽÑ,Ñ•Ñ• Đ±ĐμĐ. ÑfÑ±Đ°Ñ•Ñ,Đ,Ñ• Ñ±ĐμĐ»Đ<sup>3</sup>/<sub>4</sub>Đ²ĐμĐ°Đ°  
ĐšĐ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ¿Đ,Đ»Ñ•Ñ±Đ,Ñ• Đ¿Ñ€Đ,Đ»Đ<sup>3</sup>/<sub>4</sub>Đ¶ĐμĐ<sup>1</sup>/<sub>2</sub>Đ,Ñ• Đ¿Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ,Ñ•Ñ Đ<sup>3</sup>/<sub>4</sub>Đ´Đ,Ñ, Đ¿Đ<sup>3</sup>/<sub>4</sub>Ñ•Đ»Đμ  
ÑfÑ•Đ¿ĐμÑ´Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>Đ¹ Đ¿Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ²ĐμÑ€Đ°Đ. Đ±Đ,Đ<sup>1</sup>/<sub>2</sub>Đ°Đ»Ñ€Đ<sup>1</sup>/<sub>2</sub>Đ°Ñ• Đ²ĐμÑ€Ñ•Đ,Ñ•  
Đ¿Đ<sup>3</sup>/<sub>4</sub>Đ¿Đ°Đ´Đ°ĐμÑ, Đ<sup>1</sup>/<sub>2</sub>Đ° Ñ•ĐμÑ€Đ²ĐμÑ€ Đ±ĐμĐ. Ñ€ÑfÑ±Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>Đ³Đ<sup>3</sup>/<sub>4</sub> Đ²Đ<sup>3</sup>/<sub>4</sub>Đ-Đ´ĐμĐ¹Ñ•Ñ,Đ²Đ,Ñ•

Đ•Đ²Ñ,Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ°Ñ,Đ,Đ-Đ,Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ²Đ°Đ<sup>1</sup>/<sub>2</sub>Đ<sup>1</sup>/<sub>2</sub>Ñ<Đ¹ Đ´ĐμĐ¿Đ»Đ<sup>3</sup>/<sub>4</sub>Đ¹ Đ-Đ°Đ<sup>1</sup>/<sub>4</sub>Ñ<Đ°Đ°ĐμÑ,  
Đ°Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>2</sub>Đ²ĐμĐ¹ĐμÑ€ CI/CD. ĐYÑ€Đ<sup>3</sup>/<sub>4</sub>Ñ±ĐμÑ•Ñ• Đ´Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Đ°Đ²Đ»Ñ•ĐμÑ,  
Đ¿Ñ€Đ,Đ»Đ<sup>3</sup>/<sub>4</sub>Đ¶ĐμĐ<sup>1</sup>/<sub>2</sub>Đ,Đμ [Đ¿Đ,Đ<sup>1</sup>/<sub>2</sub> Đ°Đ¿ Đ°Đ°Đ-Đ,Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>](#) Đ<sup>1</sup>/<sub>2</sub>Đ° Đ<sup>1</sup>/<sub>2</sub>ÑfĐ¶Đ<sup>1</sup>/<sub>2</sub>ÑfÑŽ Ñ•Ñ€ĐμĐ´Ñf.  
Đ¿ĐμÑ€Đ²ĐμÑ€Ñ< Đ¿Đ<sup>3</sup>/<sub>4</sub>Đ»ÑfÑ±Đ°ÑŽÑ, Đ°Đ¿Đ´ĐμĐ¹Ñ,Ñ< Đ±ĐμĐ. Đ¿ĐμÑ€ĐμÑ€Ñ<Đ²Đ<sup>3</sup>/<sub>4</sub>Đ².  
ĐYĐ<sup>3</sup>/<sub>4</sub>Đ»Ñ€Đ-Đ<sup>3</sup>/<sub>4</sub>Đ²Đ°Ñ,ĐμĐ»Đ, Đ-Đ°Đ<sup>1</sup>/<sub>4</sub>ĐμÑ±Đ°ÑŽÑ, Ñ•Đ²ĐμĐ¶Đ,Đμ  
Đ²Đ<sup>3</sup>/<sub>4</sub>Đ-Đ<sup>1</sup>/<sub>4</sub>Đ<sup>3</sup>/<sub>4</sub>Đ¶Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Đ, Ñ•Ñ€Đ°Đ-Ñf Đ¿Đ<sup>3</sup>/<sub>4</sub>Ñ•Đ»Đμ Đ¿Đ<sup>3</sup>/<sub>4</sub>Đ´Ñ,Đ²ĐμÑ€Đ¶Đ´ĐμĐ<sup>1</sup>/<sub>2</sub>Đ,Ñ•  
Đ°Đ<sup>3</sup>/<sub>4</sub>Đ´Đ°. ĐšĐ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ°Đ<sup>1</sup>/<sub>2</sub>Đ´Đ° Ñ•Đ°Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>2</sub>Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ,Ñ, Đ²Ñ€ĐμĐ<sup>1</sup>/<sub>4</sub>Ñ• Đ<sup>1</sup>/<sub>2</sub>Đ° Ñ€ÑfÑ,Đ,Đ<sup>1</sup>/<sub>2</sub>Đ<sup>1</sup>/<sub>2</sub>Ñ<Ñ  
Đ-Đ°Đ´Đ°Ñ±Đ°Ñ.

Đ•Đ°Ñ,ÑfĐ°Đ»Ñ€Đ<sup>1</sup>/<sub>2</sub>Đ°Ñ• Đ¿Đ,Đ<sup>1</sup>/<sub>2</sub> Đ°Đ¿ Đ<sup>1</sup>/<sub>2</sub>ĐμĐ´Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Đ,Đ¶Đ,Đ<sup>1</sup>/<sub>4</sub>Đ° Đ±ĐμĐ.  
Đ°Đ²Ñ,Đ<sup>3</sup>/<sub>4</sub>Đ<sup>1</sup>/<sub>4</sub>Đ°Ñ,Đ,Đ-Đ°Ñ±Đ,Đ, . Đ´Đ<sup>1</sup>/<sub>2</sub>Ñ•Ñ,Ñ€ÑfĐ<sup>1</sup>/<sub>4</sub>ĐμĐ<sup>1</sup>/<sub>2</sub>Ñ,Ñ< CI/CD Ñ,Đ<sup>3</sup>/<sub>4</sub>Ñ€Ñ•Đ,Ñ€ÑfÑŽÑ,  
Ñ€ĐμĐ»Đ,Đ- Đ°Đ¿Đ´ĐμĐ¹Ñ,Đ<sup>3</sup>/<sub>4</sub>Đ². Đ´ĐμÑ,,ĐμĐ°Ñ,Ñ< Đ<sup>1</sup>/<sub>2</sub>Đ°Ñ Đ<sup>3</sup>/<sub>4</sub>Đ´Ñ•Ñ,Ñ•Ñ• Đ<sup>1</sup>/<sub>2</sub>Đ°  
Đ<sup>1</sup>/<sub>2</sub>Đ°Ñ±Đ°Đ»Ñ€Đ<sup>1</sup>/<sub>2</sub>Ñ<Ñ Ñ•Ñ,Đ°Đ¿Đ°Ñ. ĐšĐ°Ñ±ĐμÑ•Ñ,Đ²Đ<sup>3</sup>/<sub>4</sub> Đ¿Ñ€Đ<sup>3</sup>/<sub>4</sub>Đ´ÑfĐ°Ñ,Đ°  
Đ²Đ<sup>3</sup>/<sub>4</sub>Đ-Ñ€Đ°Ñ•Ñ,Đ°ĐμÑ, Đ-Đ° Ñ•Ñ±ĐμÑ, Đ¿Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ,Đ<sup>3</sup>/<sub>4</sub>Ñ•Đ<sup>1</sup>/<sub>2</sub>Đ<sup>1</sup>/<sub>2</sub>Ñ<Đ<sup>1</sup>/<sub>4</sub> Đ²Đ°Đ»Đ,Đ´Đ°Ñ±Đ,Ñ•Đ<sup>1</sup>/<sub>4</sub>.  
Đ°Đ°Ñ€Đ°Đ±Đ<sup>3</sup>/<sub>4</sub>Ñ,Ñ±Đ,Đ°Đ, Ñ•Đ<sup>3</sup>/<sub>4</sub>Ñ•Ñ€ĐμĐ´Đ<sup>3</sup>/<sub>4</sub>Ñ,Đ°Ñ±Đ,Đ²Đ°ÑŽÑ,Ñ•Ñ• Đ<sup>1</sup>/<sub>2</sub>Đ°

Ñ€Đ°Đ·Ñ€Đ°Đ±Đ¾Ñ,Đ°Đµ Ñ,ÑƒĐ½Đ°Ñ†Đ,Đ¾Đ½Đ°Đ»Đ° Đ²Đ¼ĐµÑ•Ñ,Đ¾ Đ¼ĐµÑ  
Đ°Đ½Đ,Ñ†ĐµÑ•Đ°Đ¾Đ¾Đ¾ Đ´ĐµĐ¿Đ»Đ¾Ñ•.

## ĐŸĐ¾Ñ†ĐµĐ¼Ñƒ Đ°Ñ€Đ,Ñ,Đ,Ñ†Đ½Đ° Đ°Đ²Ñ,Đ¾Đ¼Đ°Ñ,Đ,Đ·Đ°Ñ†Đ,Ñ•Ñ€Đ°Đ·Ñ€Đ°Đ±Đ¾Ñ,Đ°Đ,

ĐœĐµÑ Đ°Đ½Đ,Ñ†ĐµÑ•Đ°Đ¾Đµ Đ²Ñ(Đ°Đ»Đ°Đ´Đ°Ñƒ Đ¿Ñ€Đ,Đ»Đ¾Đ¶ĐµĐ½Đ,Đ¹  
Đ¾Ñ,Đ½Đ,Đ¼Đ°ĐµÑ, Đ·Đ½Đ°Ñ†Đ,Ñ,ĐµĐ»ÑœĐ½Đ¾ Đ²Ñ€ĐµĐ¼ĐµĐ½Đ,  
Đ Đ°Đ·Ñ€Đ°Đ±Đ¾Ñ,Ñ†Đ,Đ°Đ, Ñ,ĐµÑ€Ñ•ÑŽÑ, Ñ†Đ°Ñ•Ñ( Đ½Đ° Ñ,Đ,Đ¿Đ¾Đ²Ñ(Đµ  
Đ¾Đ¿ĐµÑ€Đ°Ñ†Đ,Đ, ĐšĐ¾Đ¿Đ,Ñ€Đ¾Đ²Đ°Đ½Đ,Đµ Ñ,Đ°Đ¹Đ»Đ¾Đ² Đ½Đ° Ñ•ĐµÑ€Đ²ĐµÑ€  
Đ¿Ñ€ĐµĐ´Đ¿Đ¾Đ»Đ°Đ³Đ°ĐµÑ, Đ²Đ½Đ,Đ¼Đ°Đ½Đ,Ñ•. ĐšĐ¾Đ½Ñ,Đ,Đ³ÑƒÑ€Đ,Ñ€Đ¾Đ²Đ°Đ½Đ,Đµ  
Ñ•Ñ€ĐµĐ´Ñ( Đ²Ñ(Đ·Ñ(Đ²Đ°ĐµÑ, Đ´ĐµÑ,ĐµĐ°Ñ,Ñ( ĐšĐµĐ»Đ¾Đ²ĐµÑ†ĐµÑ•Đ°Đ,Đ¹ Ñ,Đ°Đ°Ñ,Đ¾Ñ€  
Đ¿Ñ€Đ,Đ²Đ¾Đ´Đ,Ñ, Đ° Ñ•Đ»ÑƒÑ†Đ°Đ¹Đ½Ñ(Đ¼ Đ½ĐµĐ¿Đ¾Đ»Đ°Đ´Đ°Đ°Đ¼.

Đ•Đ²Ñ,Đ¾Đ¼Đ°Ñ,Đ,Đ·Đ°Ñ†Đ,Ñ• Đ»Đ,Đ°Đ²Đ,Đ´Đ,Ñ€ÑƒĐµÑ, Đ¿Đ¾Đ²Ñ,Đ¾Ñ€Ñ•ÑŽÑ%Đ,ĐµÑ•Ñ•  
Đ·Đ°Đ´Đ°Ñ†Đ, Đ¿Đ°Ñ€Đ,Đ¿Ñ,Ñ( Đ,Ñ•Đ¿Đ¾Đ»Đ½Ñ•ÑŽÑ, Đ·Đ°Đ´Đ°Ñ†Đ, Ñ•Đ°Đ¾Ñ€ĐµĐµ  
Đ»ÑŽĐ´ĐµĐ¹. Đ´ĐµÑ€Đ¾Ñ•Ñ,Đ½Đ¾Ñ•Ñ,Ñœ Đ±Đ°Đ³Đ¾Đ² Ñ•Đ½Đ,Đ¶Đ°ĐµÑ,Ñ•Ñ• Đ² Ñ€Đ°Đ·Ñ(.  
Đ«Ñ€ÑƒĐ¿Đ¿Đ° Đ¿Ñ€Đ,Đ¾Đ±Ñ€ĐµÑ,Đ°ĐµÑ, Đ±Đ¾Đ»ÑœÑ´Đµ Đ²Ñ€ĐµĐ¼ĐµĐ½Đ, Đ½Đ°  
Ñ•Đ¾Đ·Đ´Đ°Đ½Đ,Đµ Đ½Đ¾Đ²Ñ(Ñ Đ²Đ¾Đ·Đ¼Đ¾Đ¶Đ½Đ¾Ñ•Ñ,ĐµĐ¹. Đ´Đ,Đ·Đ½ĐµÑ•  
Ñ,Đ¾Ñ€Ñ•Đ,Ñ€ÑƒĐµÑ, Đ·Đ°Đ¿ÑƒÑ•Đ° Đ¿Ñ€Đ¾Đ´ÑƒĐ°Ñ,Đ° Đ½Đ° Ñ€Ñ(Đ½Đ¾Đ°.

ĐœĐ,Ñ€Đ¼Ñ( Đ¿Đ,Đ½ Đ°Đ¿ Đ°Đ°Đ·Đ,Đ½Đ¾ Đ²Ñ(Đ¿ÑƒÑ•Đ°Đ°ÑŽÑ, Đ°Đ¿Đ´ĐµĐ¹Ñ,Ñ(.  
Đ½ĐµÑ•Đ°Đ¾Đ»ÑœĐ°Đ¾ Ñ€Đ°Đ· Đ² Đ´ĐµĐ½Ñœ. ĐŸĐ¾Đ»ÑœĐ·Đ¾Đ²Đ°Ñ,ĐµĐ»Đ,  
Đ¾Đ¿ĐµÑ€Đ°Ñ,Đ²Đ½ĐµĐµ Đ¾Đ±Ñ€ĐµÑ,Đ°ÑŽÑ, Đ¿Đ°Ñ,Ñ†Đ, Đ±Đ°Đ³Đ¾Đ².  
ĐšĐ¾Đ½Đ°ÑƒÑ€ĐµĐ½Ñ,Đ½Đ¾Đµ Đ²Ñ(Đ³Đ¾Đ´Đ° ÑƒĐ²ĐµĐ»Đ,Ñ†Đ,Đ²Đ°ĐµÑ,Ñ•Ñ• Đ·Đ° Ñ•Ñ†ĐµÑ,  
Ñ•Đ°Đ¾Ñ€Đ¾Ñ•Ñ,Đ¾ Đ¾Ñ,Đ²ĐµÑ,Đ°. ĐžĐ±Ñ€Đ°Ñ,Đ½Đ°Ñ• Ñ•Đ²Ñ•Đ·Ñœ Đ¾Ñ,  
Đ·Đ°Đ°Đ·Ñ†Đ,Đ°Đ¾Đ² Đ¿Đ¾Ñ•Đ²Đ»Ñ•ĐµÑ,Ñ•Ñ• Ñ•Đ°Đ¾Ñ€ĐµĐµ.

ĐžÑ•Ñ,Đ¾Đ¹Ñ†Đ,Đ²Đ¾Ñ•Ñ,Ñœ Đ¿Ñ€Đ¾Ñ†ĐµÑ•Ñ•Đ¾Đ² Đ¿Đ¾Đ²Ñ(Ñ´Đ°ĐµÑ,Ñ•Ñ• Đ¿Ñ€Đ,  
Đ°Đ²Ñ,Đ¾Đ¼Đ°Ñ,Đ,Đ·Đ°Ñ†Đ,Đ. ĐšĐ°Đ¶Đ´Đ¾Đµ Ñ€Đ°Đ·Đ²ĐµÑ€Ñ,Ñ(Đ²Đ°Đ½Đ,Đµ Đ¿Ñ€Đ¾Ñ  
Đ¾Đ´Đ,Ñ, ĐµĐ´Đ,Đ½Đ¾Đ¾Đ±Ñ€Đ°Đ·Đ½Ñ(Đµ Ñ•Ñ,Đ°Đ¿Ñ( Đ·Đ°Ñ•Ñ,Ñ€Đ¾Đ¹Đ°Đ° Ñ•Đ¾Ñ  
Ñ€Đ°Đ½Ñ•ĐµÑ,Ñ•Ñ• Đ² Đ°Đ¾Đ´Đµ. Đ Đ¾Đ»Đ»Đ±Ñ•Đ° Đ° Đ¿Ñ€ĐµĐ´Ñ(Đ´ÑƒÑ•ĐµĐ¹ Đ²ĐµÑ€Ñ•Đ,Đ,  
Đ·Đ°Đ½Đ,Đ¼Đ°ĐµÑ, Đ¼Đ,Đ½ÑƒÑ,Ñ( Đ«Ñ€ÑƒĐ¿Đ¿Đ° Ñ•Đ¿Đ¾Đ°Đ¾Đ¹Đ½Đ° Đ²  
Đ¿Ñ€ĐµĐ´Ñ•Đ°Đ·ÑƒĐµĐ¼Đ¾Ñ•Ñ,Đ, Đ,Ñ•Ñ Đ¾Đ´Đ°. ĐšĐ°Ñ†ĐµÑ•Ñ,Đ²Đ¾ Đ¿Ñ€Đ¾Đ´ÑƒĐ°Ñ,Đ°  
ÑƒĐ»ÑƒÑ†Ñ´Đ°ĐµÑ,Ñ•Ñ• Đ·Đ° Ñ•Ñ†ĐµÑ, Đ¿Đ¾Ñ•Đ»ĐµĐ´Đ¾Đ²Đ°Ñ,ĐµĐ»ÑœĐ½Đ¾Đ¼Ñƒ  
Đ¿Ñ€Đ,Đ½Ñ†Đ,Đ¿Ñƒ Đ° Đ¿ÑƒĐ±Đ»Đ,Đ°Đ°Ñ†Đ,Đ, Đ¿Ñ€Đ°Đ²Đ¾Đ°.

## ĐšÑ,Đ¾ Đ¿Đ¾Đ´Ñ€Đ°Đ·ÑƒĐ¼ĐµĐ²Đ°ĐµÑ, Đ±ĐµÑ•Đ¿Ñ€ĐµÑ€Ñ(Đ²Đ½Đ°Ñ• Đ,Đ½Ñ,ĐµĐ³Ñ€Đ°Ñ†Đ,Ñ•

Đ´ĐµÑ•Đ¿Ñ€ĐµÑ€Ñ(Đ²Đ½Đ°Ñ• Ñ•Đ»Đ,Ñ•Đ½Đ,Đµ Ñ•Đ¾ĐµĐ´Đ,Đ½Ñ•ĐµÑ, Đ°Đ¾Đ´ Đ¾Ñ,  
Ñ€Đ°Đ·Đ½Ñ(Ñ Ñ€Đ°Đ·Ñ€Đ°Đ±Đ¾Ñ,Ñ†Đ,Đ°Đ¾Đ². ĐŸÑ€Đ¾Đ¾Ñ€Đ°Đ¼Đ¼Đ,Ñ•Ñ,Ñ(.  
Đ¾Ñ,Đ¿Ñ€Đ°Đ²»Ñ•ÑŽÑ, Đ¼Đ¾Đ´Đ,Ñ,Đ,Đ°Đ°Ñ†Đ,Đ, Đ² Ñ†ĐµĐ½Ñ,Ñ€Đ°Đ»ÑœĐ½Ñ(Đ¹ Ñ  
Ñ€Đ°Đ½Đ,Đ»Đ,Ñ•Đµ Đ½ĐµÑ•Đ°Đ¾Đ»ÑœĐ°Đ¾ Ñ€Đ°Đ· Đ² Đ´ĐµĐ½Ñœ. Đ¿Đ,Ñ•Ñ,ĐµĐ¼Đ°  
Đ°Đ²Ñ,Đ¾Đ¼Đ°Ñ,Đ,Ñ†ĐµÑ•Đ°Đ, Đ,Đ·Đ²Đ»ĐµĐ°ĐµÑ, Đ½Đ¾Đ²Ñ(Đ¹ Đ°Đ¾Đ´. Đ¿Ñ,Đ°Ñ€Ñ,ÑƒĐµÑ,







End-to-end 3D printing process, from design to production. The process starts with a 3D model, which is then sliced into layers. The printer then builds the part layer by layer, using a laser to sinter the powder. The final part is then finished and inspected.

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