

## Merjenje temperature in vlage

Uporabljene enačbe za izračun preduporov za LED diode:

RDEČA LED:

$$R_{prd} = \frac{U_{CC} - U_D}{I_D} = \frac{5\text{ V} - 1,8\text{ V}}{20\text{ mA}} = 160\ \Omega$$

ZELENA LED:

$$R_{prd} = \frac{U_{CC} - U_D}{I_D} = \frac{5\text{ V} - 3,5\text{ V}}{20\text{ mA}} = 75\ \Omega$$

MODRA LED:

$$R_{prd} = \frac{U_{CC} - U_D}{I_D} = \frac{5\text{ V} - 3,6\text{ V}}{20\text{ mA}} = 70\ \Omega$$

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$$I_D(5\text{ mm}) = 20\text{ mA}$$

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Za vrednosti uporov sva uporabila približne vrednosti, ker enakih uporov ni bilo na voljo.

Tabela napetosti LED diod različnih barv:

Light Emitting Diode Colours

Typical LED Characteristics			
Semiconductor Material	Wavelength	Colour	V <sub>F</sub> @ 20mA
GaAs	850-940nm	Infra-Red	1.2v
GaAsP	630-660nm	Red	1.8v
GaAsP	605-620nm	Amber	2.0v
GaAsP:N	585-595nm	Yellow	2.2v
AlGaP	550-570nm	Green	3.5v
SiC	430-505nm	Blue	3.6v
GaInN	450nm	White	4.0v