



Gymnasium
Neubiberg



Co-funded by the
Erasmus+ Programme
of the European Union

Program for the Make in Class Teacher Training 2.12 – 6.12.

Monday (Gymnasium Neubiberg)

- 09.00 – 10.00 Arrival & get together
- 10.00 – 10.15 Opening (Christopher Müller)
- **10.30 – 11.30 workshop round A**
- **11.30 – 12.30 workshop round A**
- 12.30 – 14.00 Lunch & break & get together
- **14.00 – 15.00 workshop round B**
- **15.00 – 16.00 workshop round B**
- 16.00 – 17.00 conclusion & get together (Christopher Müller)

Trainer: Christopher Müller (Gymnasium Neubiberg), Stefanie Will (Gymnasium Neubiberg), Birgit Kahler (FabLab München e.V.), Nicol Bobrich Draxler (FabLab München e.V.), Carsten Reichert (Fraunhofer),

Workshops are offered in parallel in each round; the modules are designed for a duration of 45 minutes

Workshop round A:

- 3D modelling with *tinkercad* (trainer: Birgit Kahler)
- visual programming drones (trainer: Christopher Müller)
- cutting with a plotter (trainer: Nicol Bobrich Draxler)
- soldering (trainer: Stefanie Will)

Workshop round B:

- 3D-printing with *Cura/Ultimaker* (trainer: Birgit Kahler)
- visual programming with *BBC-microbits* (trainer: Christopher Müller)
- cutting with a plotter (trainer: Nicol Bobrich Draxler)
- soldering (trainer: Stefanie Will)
- Open Photonik by Fraunhofer (trainer: Carsten Reichert)

Tuesday (Gymnasium Neubiberg)

Trainer: Christopher Müller (Gymnasium Neubiberg), Stefanie Will (Gymnasium Neubiberg), Birgit Kahler (FabLab München e.V.), 5 students from Gymnasium Neubiberg in the afternoon (Helena Sedlar, Vanessa Podzun, Michelle Tupy, Jessica Pretz, Annika Müller)

10.00 – 10.30 3D printing in the classroom – practical examples from different subjects

10.30 – 11.30 workshop rail A: deepen 3D-printing (Christopher) / workshop rail B: visual programming (Stefanie) / workshop rail C: Introduction to Autodesk Fusion 360 (Tobias)

11.30 – 12.30 Making – Worth spreading! Good reasons using maker technologies in the classroom. (Christopher)

12.30 – 14.00 lunch & break

14.00 – 17.00 activity stations:

- upcycling tire chairs (Michelle Tupy, Jessica Preetz, Annika Müller)
- soldering LED-Stars (Helena Sedlar, Vanessa Podzun)
- test OER platform for making activities (Stefanie)

17.00 – 19.00 building robots together

19.00 – 20.00 robot wars event

Wednesday (FabLab München)

Trainer: Anna Blumenkranz (external), Kate Duddeck (Gymnasium Neubiberg), Christopher Müller (Gymnasium Neubiberg), Birgit Kahler (FabLab München), Nicol Bobrich-Draxler (FabLab München), Juan Mena-Carrillo (Infineon), Maximilian Henninger (Infineon)

10.00 – 13.00 Wearables (trainer: Anna Blumenkranz, Katerina Duddeck)

13.00 – 14.00 Lunch & break

14.00 – 17.00 Designer lamp for smart kids room (Juan Mena-Carrillo, Maximilian Henninger)

19.00 dinner together (optional)

Thursday (Gymnasium Neubiberg)

Trainer: Christopher Müller (Gymnasium Neubiberg), Stefanie Will (Gymnasium Neubiberg), Birgit Kahler (FabLab München), Nicol Bobrich-Draxler (FabLab München), Katerina Duddeck

10.00 – 11.30 led pillow (Katerina, Stefanie)

11.30 – 12.30 Making – Still Worth spreading! Planning projects beyond lesson subjects. (Christopher)

12.30 – 14.00 lunch & break

14.00 – 16.00 Brizzle Bots / LED-clip / deepen individual content (Stefanie, Christopher, Birgit)

16.00 – 17.00 Making – Start spreading! Participants choose a short training module and adapt it for their school system and conditions. (Christopher)

Friday (FabLab Munich)

Trainer: Tatjana Pratschke (FabLab München), Birgit Kahler (FabLab München), Nicol Bobrich-Draxler (FabLab München), Christopher Müller (Gymnasium Neubiberg), Stefanie Will (Gymnasium Neubiberg), 2 students from Gymnasium Neubiberg (Lukas Ross, Jonas Schlegel)

10.00 – 12.00 lasercutting & more / finishing led pillow (Tatjana Pratschke, Lukas Ross, Jonas Schlegel)

12.00 – 13.00 presentation of results

13.00 – 13.30 conclusion and feedback

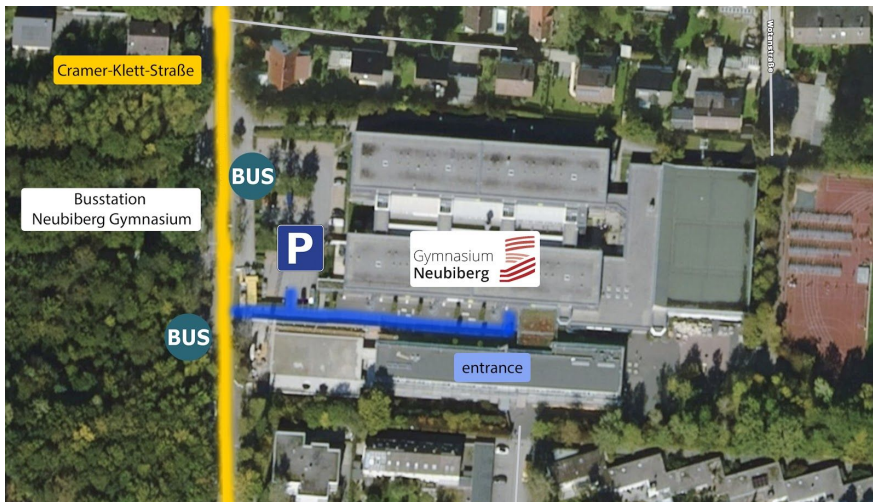
13.30 – 15.00 lunch (optional)

Locations

Gymnasium Neubiberg

Address: Cramer-Klett-Straße 10, 85579 Neubiberg

Public transport: Subway U5 to Neuperlach Süd – then take a bus number 229 to Phönix Bad (alternative bus number 212 to Michael-Haslbeck-Straße) – exit at the station Neubiberg Gymnasium



FabLab München

Address: Gollierstr. 70, Entrance D, ground floor, 80339 München

Public transport: Subway U5 to Laimer Platz – exit at the station Heimeranplatz

